

A STUDY OF THE RELATIONSHIP OF CERTAIN IDENTIFIABLE  
PERSONALITY CHARACTERISTICS OF THIRTY-FOUR SENIOR  
AND SIXTEEN SOPHOMORE STUDENTS OF NURSING TO  
THE CHOICE OF INDEPENDENT STUDY

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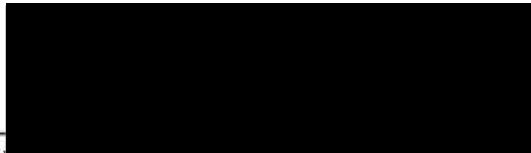
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A THESIS

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## CHAPTER I

### INTRODUCTION

The process of educating nurses is complicated by such problems as: 1) increased enrollments, 2) varied education and experience of those enrolling, 3) high attrition rates, 4) more independent attitudes of the generation now enrolled in college, 5) rapid increase in knowledge, which necessitates continuing education of nurses, 6) need to produce nurses who are critical thinkers and problem solvers, 7) short supply of qualified instructors.

#### Statement of the Problem

As noted above numerous factors must be considered when planning a nursing student's program. Research findings have led to exploration of how learning can be expedited and also to the recognition that some learners derive much satisfaction from establishing the pace at which they learn. Inherent in the latter is the need for self-motivation. It is not known if those who seek and enjoy self-directed study possess personality characteristics that can be readily identified. Accordingly this study endeavors to associate the

personality characteristics of a group of students as derived by means of a standardized personality test with their preference of a method of study as indicated on a questionnaire.

### Definitions

For the purpose of this study the following definitions of terms were used:

1. Independent study is a program individually planned and carried out by the student with faculty guidance.
2. Programmed instruction is a method of organizing and presenting instructional material in logically ordered steps so the learners working individually, may proceed from step to step, responding to each new item and by being immediately informed regarding the accuracy of the response enabled to conquer progressively difficult material by self-pacing.
3. Self-pacing refers to the freedom to move at one's own rate through prescribed material.

### The Purpose of the Study

The purpose of this study was to determine if the personality characteristics of students were associated with their choice of independent study as a method of learning.

Hypothesis:

Purpose of the study was to test the hypothesis in the null form:

There is no difference between personality characteristics of those who choose independent study and those who do not.

Alternate form:

There is a difference between personality characteristics of those who choose independent study and those who do not.

Assumptions

For the purpose of this study it was assumed that:

1. The method of obtaining the data were pertinent and the tool was adequate for this study.
2. Personality characteristics of students who would or would not choose the independent study method of learning could be identified.

Limitations of the Study

This study was limited to:

1. Data collected by questionnaire and the California Psychological Inventory from 34 senior students of nursing and 16 sophomore students of nursing in one baccalaureate nursing school.

2. Data collected during the spring and summer quarters 1971.

### Design of Study

This was a descriptive study done in an attempt to identify the personality characteristics of those choosing the independent study method. Data for the study were collected by a questionnaire developed by the investigator and the California Psychological Inventory. The questionnaire was tested by a pilot study before proceeding with the study. It indicated that the tools were productive of data which could be compared. Permission to conduct the study was obtained from the Director of the selected School of Nursing. The students were contacted in their classes and arrangements made for responding to the questionnaire and the California Psychological Inventory. The definition of independent study as related to this study was given; they were also told the approximate time it would take to complete the California Psychological Inventory and questionnaire. The potential population consisted of a group of 127 senior and 176 sophomore students of nursing in a baccalaureate school of nursing. From this group 34 seniors and 16 sophomores volunteered to participate.

On completion of the California Psychological Inventory and questionnaire the results were tabulated. The findings were described arithmetically and graphically. The study was summarized, conclusions drawn and recommendations made.

### Overview of the Study

The report of this study is divided into four chapters.

Chapter I contains the statement of the problem, purpose of the study, hypotheses, assumptions, limitations and design of the study.

Chapter II is devoted to a review of pertinent literature and related studies.

Chapter III describes the methodology, the analysis and interpretation of the findings of the study.

Chapter IV consists of the findings, conclusions, and recommendations for further study.



## CHAPTER II

### REVIEW OF LITERATURE AND RELATED STUDIES

The literature was searched for references to the relationship of personality traits to choice of independent or self-directed study as the means of learning subject matter content. The characteristics, interests, past experiences and needs of the learner influence the selection of the methods whereby teaching and learning are accomplished (13). It should not be assumed that all students possess instant readiness in goals and motivation as well as technical capabilities (21, 24). Meenes et al., indicate that it is important for the instructor to ascertain if the student is emotionally ready and if the student will benefit from individualized, independent study. Students are a product of what they have learned. Their attitudes, emotions and problem solving abilities result from their learning experiences (13, 18, 29, 37).

Educators Dale, King and others indicate that the objective of all teaching is to prepare the student to function without the teacher. Independent learning does not free the institution or the faculty of responsibility in the learning process, rather it involves them in

guiding the learners, creating in them an inquiring mind which will propel them to seek knowledge (16, 22, 31, 35).

Carl Rogers asserted that the goal of education is to facilitate change in the learner:

The only man who is educated is the man who has learned how to learn; the man who has learned how to adapt and change; the man who has realized that no knowledge is secure, that only the process of seeking knowledge gives a basis for security (44).

#### Use of Independent Study in Elementary and Secondary Schools

During the last few years increased emphasis has been placed on "independent learning" at all levels of education (27). Elementary school studies indicate that pupils, even in the lower grades, are motivated and show a greater interest when they have an opportunity to select their area of interest and perform independently (52, 53). Pupils of all abilities have benefitted from exploring and developing ideas on their own. The low achievers were inspired and showed a greater interest when various media were utilized in the learning process (5, 50). Learners involved in planning their schedules and integrating their programs gained self-confidence (46). According to Gagne this is important in influencing their future attitudes toward learning (25).

Beltz and Kohn reported on independent study in five Missouri high schools. The programs were operated on the principle of

flexibility in individual interests, ideas, and opportunities. The students' learning improved because they were motivated by their interest (4). Those experimenting with independent study said they worked harder and learned to study more effectively on their own (2).

Project TALENT, reported by Weisgerber and Rahmlow, started in 1960 by the American Institute for Research, as a 20 year study including approximately 400,000 students, concentrated on individual student abilities. Dr. John C. Flanagan, who conceived Project TALENT is now directing PLAN, a national project aimed at a possible solution of the need for increased planning for individualized learning in the future (53).

#### Use of Individualized Instruction in Colleges and Universities

American colleges differ in the extent to which they use independent study. Liberal arts colleges and universities tend to emphasize individual study practices more than the junior colleges and special purpose institutions. According to Dixon, the most academically productive colleges emphasize individual study practices most (20).

Ford referred to the use of independent study in the teaching of biology. He quoted item six from the list of 21 standards of quality of teaching, "Quality may be indicated in colleges that are most successful in involving their students in independent study." The

standards were published by the United States Department of Health, Education and Welfare in the Clearinghouse of Studies on Higher Education (24).

Antioch College, University of Michigan and Washington State University indicated that independent study programs were financially feasible and that probably more students could be handled under independent study than with conventional methods (5, 24).

In 1963, Felder, the Assistant Professor of Secondary Education at the University of Houston, gathered data regarding independent study in American colleges and universities. A questionnaire sent to 520 four year academic institutions with enrollments of 200 or more asked if independent study was used in the undergraduate program. Four hundred forty-five institutions responded. Sixty-eight percent of the responses were affirmative. More than half reported using independent study throughout the four years of college (22).

According to Curl audio-visual-tutorial learning benefitted students through encouraging habits of self-direction and developing skills of independent problem-solving. He found that at Western Michigan University 90% of the students who completed a self-instructional audio-visual-tutorial course in physical geography were satisfied with the course. Ninety-four percent preferred it to the large-group lecture. Seventy-eight percent preferred the audio-visual-tutorial to small-group lecture classes. Grades improved (15).

Bucknell University emphasized the mastery concept rather than marks in a study that "hypothesized that there would be an increase in academic achievement of participating students and an improvement in student attitudes toward the instructional process." The response of the entire group was predominantly in favor of a program which used independent study. This study involved students in biology, philosophy and psychology indicating that a wide range of content can be successfully used (38).

An often mentioned experiment in independent study, known as integrated experience, was carried out in a botany course at Purdue University. The emphasis was on student learning instead of the mechanisms of teaching and was inaugurated as a means of assisting students who had difficulty in keeping up with the class. Later an entire course in botany was developed by this method. Postlethwait, who had been involved in the program for 14 years, said that 1) more students reached a higher level of achievement under the integrated experience system, 2) students' attitudes were considerably improved, 3) vandalism was reduced, 4) one-third more information could be presented in an equivalent length of time, 5) grades improved and 6) the percentage of F's decreased somewhat. Postlethwait also said that, "Perhaps an improvement in orientation of these students at the beginning of the semester would reduce the number of failures still further" (43).

A comparison of an independent study group and a traditional study group responsible for the same subject matter was done in 1965 at the Brigham Young University. The California Psychological Inventory was used to identify the personality attributes of the two groups. Results inferred that students who had no difficulty with the conventional methods demonstrated success in the independent study method as well. Intellectual efficiency and responsibility were personality traits pertinent to success in independent study. Within the group of successful independent study students, those with higher social needs seemed to be less satisfied with independent study. Personality characteristics, as well as scholastic ability seemed to be influential factors in independent study (6).

Baskin said personality traits were more important in independent study than intelligence levels (1). Bonthius related the need for studying the personality factors that are important in independent study (7). Chickering, from his experience with the Goddard College study, said that personality factors should be considered together with academic ability in the selection of students for independent study (10). Margarones made a survey of colleges and universities using independent study; he found that personal initiative and self-discipline were more important than scholastic capabilities when pursuing courses by independent study. Questionnaires were sent to students and faculty. The instructors related that they found

preparation of independent study courses more challenging than conventional courses, but that more time was required for preparation. Students used the faculty oftener as resource persons. The rapport with the instructors increased. The instructors noted that the independent study students were more motivated than the others. An increased use of the library was also noted. The highest agreement among the instructors was that the students should have some form of orientation to independent study, but the highest disagreement was that independent study should be required by all students. The instructors indicated that independent study was influential "in developing critical thinking, study skills, intellectual curiosity, interest, efficiency of expression, and a probe in depth." There was strong agreement among the faculty on the use of individualized assignments. Students agreed with the faculty that independent study was more motivating and challenging than the conventional method of conducting a course. They concurred that rapport with the instructor improved and that library use and study time increased. The faculty did not note the students as appreciating their instructors any more in this program, but the students said their appreciation of the instructors was increased. The students agreed with the faculty that there was need for an orientation to independent study. The students differed with the faculty in their response to whether all college students should pursue a course by independent study but most of them

responded affirmatively (36).

Koenig and McKeachie studied personality and independence. Their students were involved for one-half semester in each type of study so no pure intra-independent group differences were available. They considered information about the personality of the students as a guide to assisting the students:

As we see it, our goal should be for all students to learn to work independently and to participate responsibly in small groups. Rather than excluding students who dislike independence or work in small groups from these classes we may want to give them special training and attention in order to help them learn how to learn in these situations. Increased knowledge about student personalities should give us increased ability to achieve these goals (32).

#### Use of Individualized Instruction in Nursing Education

Corona and other educators agree that independent study is a method of education which motivates the student toward continuing education (12, 19, 23, 31, 34).

The picture of the students as passive reactive receivers has changed. They are more aware, better informed, eager to become involved in the world about them and demand relevance in education. Educators see this as an indication that students can and need to be responsible for their own learning (19, 27).

Studies done where independent study methods had been used in nursing education indicated that student nurses can achieve as well or



better by these methods, and that they would prefer independence if given an opportunity to choose (14, 19, 39, 40). Some of the studies in nursing education showed an interest in independent study as an effort to produce more flexibility in the curriculum and to allow the students to progress at their own rate. Other studies in nursing viewed independent study as a means of: 1) improving utilization of instructors, 2) shortening the length of the course and still producing efficient nurses and 3) accommodating larger enrollments (9, 17, 40, 41, 42).

None of the studies reported on the personality characteristics of the students. One study noted that the program appeared to benefit the slow learner more than the fast learner (9). The importance of initiative was stressed (39, 54).

Crayton and Lysaught (14) considered that the prime problems in nursing education were the shortage of faculty and the need for teaching methods that assured effective instruction of the increased enrollment. They stated that independent study with programmed instruction could facilitate learning (14).

Geizi and Hadley were concerned about educators who failed to appreciate the value of developing nurses who are critical thinkers (26). Curl, and others refer to independent study as a method of teaching nurses to be innovative (15, 31, 48).

To prepare professional nurses to meet the needs of a rapidly changing society is a challenge to nurse educators. If they examine

themselves they will discover they are teaching much of the same material in much the same manner as they were taught. Their method is "perpetuating" graduates who do not function creatively or initiate changes in the systems of health care (12).

The Washington Hospital School of Nursing, Pennsylvania, increased enrollment from 48 students in 1955 to 230 in 1965. This factor plus low attrition rate forced the school to accelerate the curriculum in order to teach more students. The use of the audio-tutorial laboratory for the teaching of an integrated science course enabled the students to learn at their own rate. Each student conducted her own experiments at the direction of the taped message and under the tutelage of an instructor. The majority of the instructors found that the course content could be completed faster and more thoroughly than previously. Eighty-seven of 100 students indicated they preferred the integrated approach to sciences. Eighty-two students said they had to study as much or more than they had expected. Most of them studied from 15 to 25 hours a week (17).

Crayton and Lysaught reported on a programmed unit, "An Introduction to Radiation Therapy for Nursing Students." The program was used with a class of college juniors and a class of second year students in a three-year diploma program in nursing. The 23 junior nursing students (Group A) were divided into experimental and control groups. They were comparable in age, past education, level

in college and College Entrance Examination Board scores. Group B, the 58 diploma students in the second year were also divided into experimental and control groups. These groups were also quite comparable. All groups were pre- and post-tested and all showed an increase in knowledge of the subject in the post-test. The students did learn at least as well by means of the self instructional programmed learning as by the conventional course. The experimental students stressed that they could progress at their own pace and that they learned with greater ease. The range in time spent on each unit was from one and one-half to four hours, the average was two and one-fourth hours. Each lecture of similar material for the control group was two hours in length (14).

At the Deaconess Hospital School of Nursing, Evansville, Indiana, Chambliss and colleagues conducted an experiment in independent study using the audio-visual approach. Twenty faculty members were involved in preparing STEPS to Learning. This is a Slide-Tape-Experimental-Program-Series. The faculty reported that it was very time consuming and that it required a great deal of organization of the material. Most of them felt that time was well spent because once prepared, the assignment of independent study materials gave the instructor more time for individual students. The faculty also stated that they learned to organize and deliver subjects more effectively. One of the chairmen noted that the teaching skills

of those preparing STEPS improved. The curriculum of the school was revised. The program was shortened by two months and vacations were lengthened. The class of 1970 was the first to use the complete program. Their grades were compared with past classes. The slow learner appeared to benefit most from the program. The faculty realized there were many variables but the results of the state board examinations were the highest in the history of the school. A questionnaire was sent to the students in the classes of 1970, 1971 and 1972 to elicit opinions about independent study. Sixty-six responded in favor of independent study and 30 preferred lectures (9).

#### Summary

A summary of the literature revealed that the use of independent study is increasing. Studies of general college population indicated that not all students were ready for independent study and that the personality characteristics of students should be assessed before assigning them to independent study. Some of the studies indicated that intellectual efficiency and responsibility were pertinent to success in independent study, others indicated that initiative and self-discipline were more important.

Schools of nursing have used independent study to increase flexibility in the curriculum and to allow students to progress at their own rate. No mention was made of the personality characteristics of the nursing students in either the control or the experimental groups in the studies reviewed.

## CHAPTER III

## REPORT OF THE STUDY

Methodology

This descriptive study was conducted in an attempt to discover if personality characteristics of students choosing independent study differed from the personality characteristics of those not choosing independent study. The California Psychological Inventory was used to determine the personality characteristics of the students. Gough stated that it was devised mainly in the interest of personality assessment of normal groups, such as in schools, colleges, businesses and industries (28). For this study the California Psychological Inventory was used to identify: sense of well-being, responsibility, self-control, achievement by independence, intellectual efficiency and flexibility.

All characteristics tested on the California Psychological Inventory were listed and three nurse educators were asked to select nine characteristics which they considered important to independent study. Six characteristics were agreed upon unanimously. These were as defined by Gough:

1. Wb (sense of well-being). To identify persons who minimize their worries and complaints, and who are relatively free from self-doubt and disillusionment.
2. Re (responsibility). To identify persons of conscientious, responsible, and dependable disposition and temperament.
3. Sc (self-control). To assess the degree and adequacy of self-regulation and self-control and freedom from impulsivity and self-centeredness.
4. Ai (achievement via independence). To identify those factors of interest and motivation which facilitate achievement in any setting where autonomy and independence are positive behaviors.
5. Ie (intellectual efficiency). To indicate the degree of personal and intellectual efficiency which the individual has attained.
6. Fx (flexibility). To indicate the degree of flexibility and adaptability of a person's thinking and social behavior (28).

A questionnaire was formulated for use in conjunction with the California Psychological Inventory (Appendix A). It consists of nine questions, six related to independent study and three to identify the academic background of the nurse.

A pilot study was done using the California Psychological Inventory and the questionnaire prepared by the investigator. A

sample group of eight senior students of nursing in a baccalaureate program volunteered to participate. The responses on the pilot study did indicate that there would be a scattering of the scores in the various groups, those who would and those who would not choose independent study for themselves or for others (Appendix B).

Data for the study were collected using the questionnaire and the California Psychological Inventory. Permission to conduct the study was obtained from the Director of the School of Nursing. The students were contacted in their classes requesting their assistance in the study. The approximate time it would take them to complete the questionnaire and the California Psychological Inventory together with the definition of independent study as used in this study was given to them at this time. There were 127 seniors and 176 sophomores enrolled.

Thirty-four seniors and 16 sophomores volunteered. The questionnaire was stapled to the answer sheet of the California Psychological Inventory and both were numbered with coinciding numbers so that, should they become separated, they could be matched. For this study it was imperative that the responses to the questionnaire be answered by the same person answering the California Psychological Inventory, so the students' characteristics could be related to their preference to type of study. One of the 34 senior participants was a male. His scores on the California Psychological

Inventory were computed on the male profile (Appendix C).

The items on the questionnaire were:

1. Have you even taken a course for which credit was received through some form of independent study? This question was directed at determining if the student had had some experience in independent study. This could influence the scores in the characteristics which were chosen as important for independent study such as the attitudes, emotions and problem solving abilities of students. It would also indicate that the student had been oriented to the method of study. Other answers would be influenced by the students' awareness of the advantages and disadvantages of independent study.

Of the 34 seniors 15 indicated they had done independent study, 16 indicated they had not; three made no response. Nine of 16 sophomores indicated they had done independent study, seven had not.

2. Would you recommend this form of study to others? This item was formulated to discover if students considered all other students capable of this method of study.

Twenty-nine of 34 seniors stated they would be in favor of recommending independent study to others. Two responded negatively and three did not respond. Thirteen of 16 sophomores responded favorably to recommending independent study to others. Two indicated they would not favor recommending it and one individual left the



question blank (Appendix D). Due to the majority of the participants both in senior and sophomore groups responding positively to recommending independent study no analysis could be done on the personality characteristics of those who would recommend it in contrast to those who would not recommend it to others, because the groups were not comparable.

3. If you have never tried a course where you learn by the independent study method would you be willing to try one? This question forced the student to commit herself if she considered independent study as something in which she would be interested and also if she saw herself as capable of this type of study.

Twenty seven seniors indicated they would try a course by independent study. Only one student indicated she would not. Six left the question blank. Two of those who left the question blank wrote in that the question was not applicable to them. Both had undertaken independent study. The item was, "If you have never tried a course where you learn by the independent study method would you be willing to try one?" Others who did not respond may have interpreted similarly. Twelve of the 16 sophomores were in favor of trying a course by independent study. One responded negatively and three students left the question blank; they may have left it blank due to its wording.

4. Do you watch educational programs on television? Television is a method that could be used in independent instruction. It was considered one to which they had all been exposed, thus enabling the student to evaluate it as an educational medium.

Twenty seniors watch educational television, 13 do not and one made no response to this question. Ten sophomores watched educational television, six had not used this educational opportunity.

5. Are you an Associate Degree Nurse?
6. Are you a Diploma Nurse?
7. Are you a Licensed Practical Nurse?

These three questions were asked because if a student had been enrolled previously in a nursing program before enrolling in the baccalaureate program she might be more interested in a flexible curriculum which would allow her to enter at her level. Units of independent study would make this possible.

Two out of the senior group were associate degree nurses and three were diploma nurses. In the sophomore population one of the participants indicated that she was a licensed practical nurse.

8. Do you see your instructors in nursing as facilitators of learning?
9. Do you see your instructors in nursing as lecturers?

Questions 8 and 9 related to how the students perceived their instructors, because their image of the instructor might influence success in use of independent study programs.

Twenty-six seniors indicated they considered their instructors as facilitators of learning, five did not. Two responded both yes and no. One of the participants responded to this with a paragraph at the end of the questionnaire stating that she felt that many of the instructors in her school were so busy with curriculum revision and with an excess of committee meetings that they did not have time to prepare an informative lecture. She also indicated the instructors had too many students which added to their crowded schedule. She felt the instructors used independent study as an excuse for decreased teacher involvement. She has seen independent study misused consistently in her school and indicated that was her reason for hesitating to recommend it to others. She resented the fact that almost no course credit or even recognition was given for independent study. She indicated strong feelings that the clinical grade could and should be the place for independent study with time allotted for that purpose, as well as credit and evaluation of the study done and teacher involvement. She underlined "teacher involvement."

All 16 sophomore participants considered their instructors to be facilitators of learning.

Twenty-three seniors considered their instructors as lecturers. Ten indicated they did not consider them lecturers and one of the responses was both negative and positive. Eleven sophomores considered their instructors as lecturers, one did not respond, and four responded negatively.

#### Analysis of the Data and Interpretation of the Findings

The percent of standard scores achieved by those who had done independent study and those who had not on the six characteristics in the California Psychological Inventory which had been identified as important to success in the use of this method of instruction were calculated (Appendix E and Appendix F). This presentation of the data from the two groups showed the differences in the characteristics of those who had done independent study and those who had not done independent study.

The senior students who had done independent study had scores with a mean of 52.4 with a median of 53 in well-being (Wb). The scores of those who had not done independent study had a mean of 48.6 with a median of 48 (Table 1).

Rank sums test was computed and achieved significance at the low level of .0734.

Table 1. Standard Scores in Well-being According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study and 16 Senior Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.   |   | 64  |  | 1.   |
| 2.5  | 60  |   | 2.5  |  |
| 2.5  | 60  |   | 2.5  |  |
| 4.5  |   | 58  |  | 4.5  |
| 4.5  | 58  |   | 4.5  |  |
| 7.5  | 56  |   | 7.5  |  |
| 7.5  | 56  |   | 7.5  |  |
| 7.5  | 56  |   | 7.5  |  |
| 7.5  | 56  |   | 7.5  |  |
| 11.5 |   | 53  |  | 11.5   |
| 11.5 |   | 53  |  | 11.5   |
| 11.5 | 53  |   | 11.5   |  |
| 11.5 | 53  |   | 11.5   |  |
| 15.  | 51  |   | 15.  |  |
| 15.  | 51  |   | 15.  |  |
| 15.  |   | 51  |  | 15.  |
| 18.5 |   | 49  |  | 18.5   |
| 18.5 |   | 49  |  | 18.5   |
| 18.5 |   | 49  |  | 18.5   |
| 18.5 | 49  |   | 18.5   |  |
| 22.  |   | 47  |  | 22.  |
| 22.  |   | 47  |  | 22.  |
| 22.  |   | 47  |  | 22.  |
| 25.5 | 44  |   | 25.5   |  |
| 25.5 |   | 44  |  | 25.5   |
| 25.5 |   | 44  |  | 25.5   |
| 25.5 |   | 44  |  | 25.5   |
| 28.5 | 42  |   | 28.5   |  |
| 28.5 | 42  |   | 28.5   |  |
| 30.5 |   | 40  |  | 30.5   |
| 30.5 |   | 40  |  | 30.5   |
|      |   |   | 193.5  | 302.5  |

The percentage of senior students who achieved scores one standard deviation or more below the mean are indicated by the A group in the code; those with scores within one standard deviation below and one standard deviation above the mean are in the B group and those with scores one standard deviation or more above the mean are in the C group.

Figures 1 and 2 below indicate that the senior students who had not done independent study had higher scores than those who had done independent study in the sense of well-being.

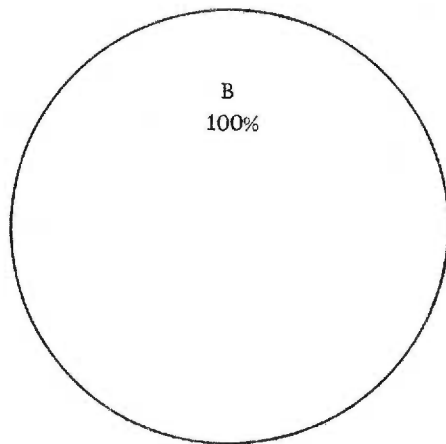


Figure 1. Percent of Standard Scores in Sense of Well-being According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

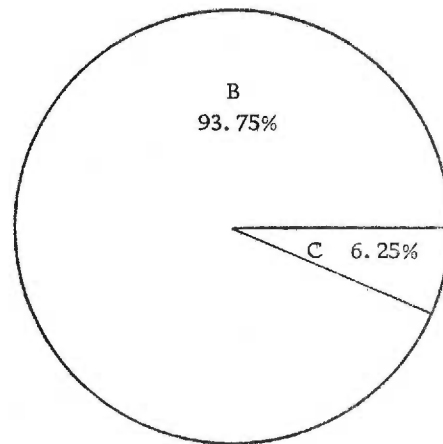


Figure 2. Percent of Standard Scores in Sense of Well-being According to the California Psychological Inventory of 16 Senior Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

The median scores in the sense of well-being for the sophomores who had done independent study was 44, their mean 43.7. Those indicating they had not done independent study had a median of 51 with a mean of 51.4 (Table 2). Z score was insignificant.

Table 2. Standard Scores in Well-being According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study and Seven Sophomore Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.5  | 60  |   | 1.5  |  |
| 1.5  |   | 60  |  | 1.5  |
| 3.5  | 58  |   | 3.5  |  |
| 3.5  |   | 58  |  | 3.5  |
| 5.5  | 53  |   | 5.5  |  |
| 5.5  |   | 53  |  | 5.5  |
| 7.   |   | 51  |  | 7.   |
| 8.5  |   | 49  |  | 8.5  |
| 8.5  |   | 49  |  | 8.5  |
| 11.  | 44  |   | 11.  |  |
| 11.  | 44  |   | 11.  |  |
| 11.  | 44  |   | 11.  |  |
| 13.  |   | 40  |  | 13.  |
| 14.  | 35  |   | 14.  |  |
| 15.  | 30  |   | 15.  |  |
| 16.  | 36  |   | 16.  |  |
|      |   |   | 88.5   | 47.5   |

In the sense of well-being the sophomores who had not done independent study had a higher percent of high scores than those who had done independent study. The scores of those who had not done independent study were all within one standard deviation above or one standard deviation below the mean, whereas  $33\frac{1}{3}\%$  of the sophomores who had done independent study had scores one standard deviation or more below the mean (Figures 3 and 4).

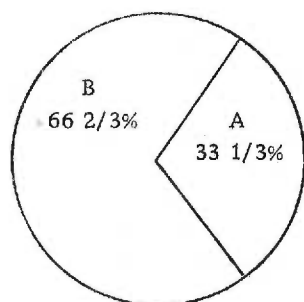


Figure 3. Percent of Standard Scores in Sense of Well-being According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

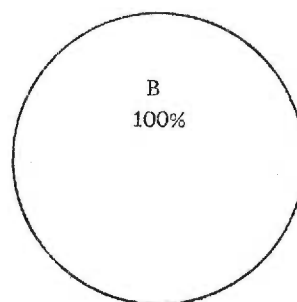


Figure 4. Percent of Standard Scores in Sense of Well-being According to the California Psychological Inventory of Seven Sophomore Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

The standard scores in responsibility (Re) for the senior students who had participated in an independent study course resulted in a mean of 47.7 and a median of 48. The students who had not taken any courses by independent study had a mean of 45.1 with a median of 44 (Table 3). Three of the students were 35, 43 and 44 years old. These students achieved standard scores of 60, 58 and 58 in this



Table 3. Standard Scores in Responsibility According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study and 16 Senior Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.5  | 60  |   | 1.5  |  |
| 1.5  | 60  |   | 1.5  |  |
| 4.   | 58  |   | 4.   |  |
| 4.   | 58  |   | 4.   |  |
| 4.   |   | 58  |  | 4.   |
| 6.   |   | 56  |  | 6.   |
| 7.5  |   | 54  |  | 7.5  |
| 7.5  | 54  |   | 7.5  |  |
| 10.  | 50  |   | 10.  |  |
| 10.  | 50  |   | 10.  |  |
| 10.  |   | 50  |  | 10.  |
| 12.5 |   | 48  | 12.5   |  |
| 12.5 | 48  |   |  | 12.5   |
| 15.5 | 46  |   | 15.5   |  |
| 15.5 | 46  |   | 15.5   |  |
| 15.5 |   | 46  |  | 15.5   |
| 15.5 |   | 46  |  | 15.5   |
| 20.  |   | 44  |  | 20.  |
| 20.  |   | 44  |  | 20.  |
| 20.  |   | 44  |  | 20.  |
| 20.  |   | 44  |  | 20.  |
| 20.  | 44  |   | 20.  |  |
| 24.  | 41  |   | 24.  |  |
| 24.  |   | 41  |  | 24.  |
| 24.  |   | 41  |  | 24.  |
| 27.  |   | 37  |  | 27.  |
| 27.  | 37  |   | 27.  |  |
| 27.  | 37  |   | 27.  |  |
| 29.5 |   | 35  |  | 29.5   |
| 29.5 |   | 35  |  | 29.5   |
| 31.  | 27  |   | <u>31.</u>   |  |
|      |   |   | 211.   | 285  |

characteristic. The ages of the other students ranged from 21 to 27, one of these had a standard score of 60 and two had scores of 58. The mean of the entire group of 31 students was 43.2. This could perhaps be an indication that age influences responsibility. The rank sums test was not significant.

Figures 5 and 6 below indicate only a slight difference between the two groups in the personality characteristic of responsibility. Those who had done independent study show 80 percent with scores within one standard deviation below and one standard deviation above the mean; those who had not done independent study had 81.3 percent in this category.

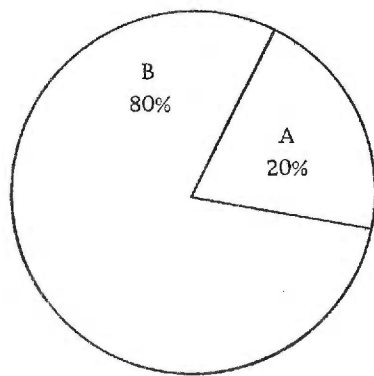


Figure 5. Percent of Standard Scores in Responsibility According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

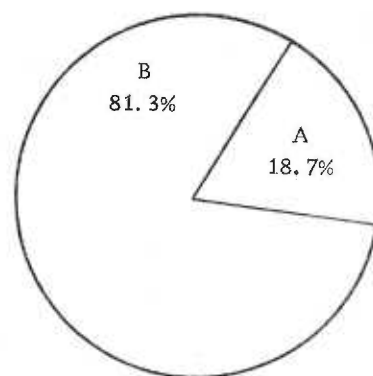


Figure 6. Percent of Standard Scores in Responsibility According to the California Psychological Inventory of 16 Senior Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

The scores of the sophomore students who had done independent study had a median of 46 and a mean of 41.7 in responsibility. The scores of seven students who had not done independent study had a median of 48 with a mean of 42 (Table 4). A rank sums test was not indicated.

Table 4. Standard Scores in Responsibility According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study and Seven Sophomore Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.5  |   | 52  |  | 1.5  |
| 1.5  |   | 52  |  | 1.5  |
| 4.   |   | 50  |  | 4.   |
| 4.   | 50  |   | 4.   |  |
| 4.   | 50  |   | 4.   |  |
| 7.5  | 48  |   | 7.5  |  |
| 7.5  | 48  |   | 7.5  |  |
| 7.5  |   | 48  |  | 7.5  |
| 7.5  |   | 48  |  | 7.5  |
| 10.  | 46  |   | 10.  |  |
| 11.  |   | 44  |  | 11.  |
| 12.5 | 37  |   | 12.5   |  |
| 12.5 |   | 37  |  | 12.5   |
| 14.5 | 35  |   | 14.5   |  |
| 14.5 | 35  |   | 14.5   |  |
| 16.  |   | 27  |  | <u>16.</u>   |
|      |   |   | 74.5   | 61.5   |

Table 5. Standard Scores in Self-control According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study and 16 Senior Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.   |   | 67  |  | 1.   |
| 2.   |   | 64  |  | 2.   |
| 3.   |   | 63  |  | 3.   |
| 5.   | 62  |   | 5.   |  |
| 5.   | 62  |   | 5.   |  |
| 5.   | 62  |   | 5.   |  |
| 7.   | 58  |   | 7.   |  |
| 8.5  | 54  |   | 8.5  |  |
| 8.5  |   | 54  |  | 8.5  |
| 10.5 |   | 53  |  | 10.5   |
| 10.5 | 53  |   | 10.5   |  |
| 12.5 | 51  |   | 12.5   |  |
| 12.5 | 51  |   | 12.5   |  |
| 14.  | 50  |   | 14.  |  |
| 16.  | 49  |   | 16.  |  |
| 16.  |   | 49  |  | 16.  |
| 16.  |   | 49  |  | 16.  |
| 19.  |   | 47  |  | 19.  |
| 19.  | 47  |   | 19.  |  |
| 19.  | 47  |   | 19.  |  |
| 21.5 |   | 44  |  | 21.5   |
| 21.5 |   | 44  |  | 21.5   |
| 23.  |   | 43  |  | 23.  |
| 24.5 |   | 42  |  | 24.5   |
| 24.5 |   | 42  |  | 24.5   |
| 26.5 |   | 40  |  | 26.5   |
| 26.5 | 40  |   | 26.5   |  |
| 28.5 | 39  |   | 28.5   |  |
| 28.5 |   | 39  |  | 28.5   |
| 30.  |   | 33  |  | 30.  |
| 31.  | 32  |   | <u>31.</u>   | <u>          </u>  |
|      |   |   | 220.   | 276.   |

Figures 9 and 10 show that the scores of the senior nursing students who had and had not done independent study were comparable.

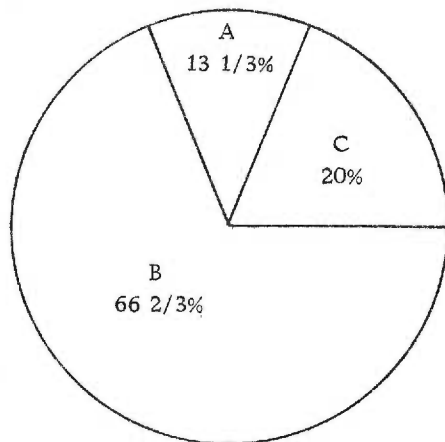


Figure 9. Percent of Standard Scores in Self-control According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

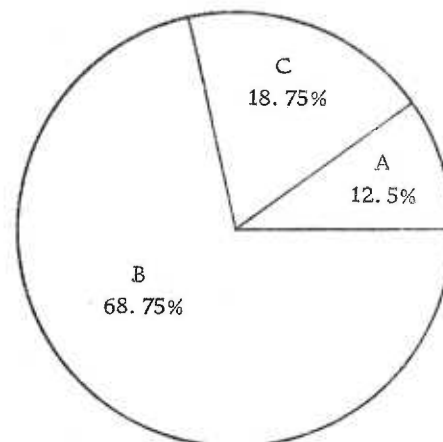


Figure 10. Percent of Standard Scores in Self-control According to the California Psychological Inventory of 16 Senior Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

The median score of the sophomore students who had done independent study was 40 compared to the mean which was 40.6. The group who had not done independent study had a median of 46 and a mean of 50.5 (Table 6). The rank sums test was insignificant.

Table 6. Standard Scores in Self-control According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study and Seven Sophomore Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 2.   | 60  |   | 2.   |  |
| 2.   |   | 60  |  | 2.   |
| 2.   |   | 60  |  | 2.   |
| 4.   |   | 57  |  | 4.   |
| 5.   | 51  |   | 5.   |  |
| 6.   |   | 46  |  | 6.   |
| 9.   | 44  |   | 9.   |  |
| 9.   |   | 44  |  | 9.   |
| 9.   |   | 44  |  | 9.   |
| 10.  |   | 43  |  | 10.  |
| 11.  | 42  |   | 11.  |  |
| 12.5 | 40  |   | 12.5   |  |
| 12.5 | 40  |   | 12.5   |  |
| 14.  | 39  |   | 14.  |  |
| 15.  | 29  |   | 15.  |  |
| 16.  | 21  |   | <u>16.</u>   |  |
|      |   |   | 97.  | 42.  |

Figures 11 and 12 show that the sophomores who had not done independent study rated higher in the personality characteristic of self-control than those who had done independent study. Only 2/3 of the sophomores who had done independent study achieved scores within one standard deviation below and one standard deviation above the mean, whereas all of the sophomores who had not done independent

study achieved scores within plus or minus one standard deviation of the mean.

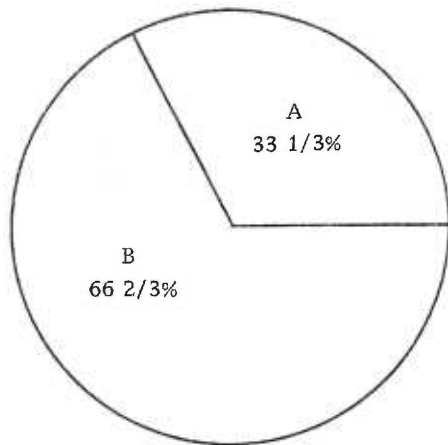


Figure 11. Percent of Standard Scores in Self-control According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

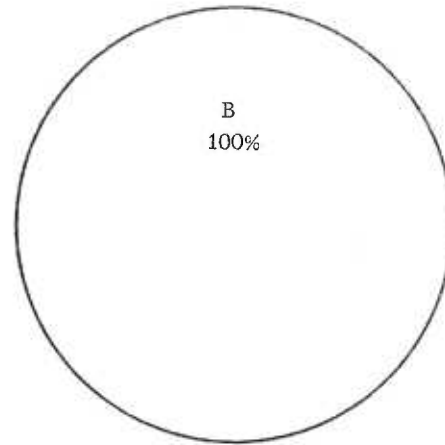


Figure 12. Percent of Standard Scores in Self-control According to the California Psychological Inventory of Seven Sophomore Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

The median score was 62 in achievement via independence (Ai) for those seniors who have done independent study and 63.5 for those who had not done independent study. The mean of the group who had done independent study was 61.2, the other group had a mean of 62 (Table 7). The rank sums test indicated no statistical difference.

Table 7. Standard Scores in Achievement Via Independence According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study and 16 Senior Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scored rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.5  | 72  |   | 1.5  |  |
| 1.5  | 72  |   | 1.5  |  |
| 6.   | 70  |   | 6.   |  |
| 6.   | 70  |   | 6.   |  |
| 6.   | 70  |   | 6.   |  |
| 6.   |   | 70  |  | 6.   |
| 6.   |   | 70  |  | 6.   |
| 6.   |   | 70  |  | 6.   |
| 6.   |   | 70  |  | 6.   |
| 11.  |   | 68  |  | 11.  |
| 11.  |   | 68  |  | 11.  |
| 11.  | 68  |   | 11.  |  |
| 14.  | 65  |   | 14.  |  |
| 14.  |   | 65  |  | 14.  |
| 14.  |   | 65  |  | 14.  |
| 17.  |   | 62  |  | 17.  |
| 17.  | 62  |   | 17.  |  |
| 17.  | 62  |   | 17.  |  |
| 19.5 |   | 60  |  | 19.5   |
| 19.5 |   | 60  |  | 19.5   |
| 21.  |   | 58  |  | 21.  |
| 22.  | 58  |   | 22.  |  |
| 24.5 | 55  |   | 24.5   |  |
| 24.5 | 55  |   | 24.5   |  |
| 24.5 |   | 55  |  | 24.5   |
| 24.5 |   | 55  |  | 24.5   |
| 27.  | 52  |   | 27.  |  |
| 28.  |   | 50  |  | 28.  |
| 29.  |   | 48  |  | 29.  |
| 30.  | 48  |   | 30.  |  |
| 31.  | 40  |   | 31.  |  |
|      |   |   | <u>239.</u>  | <u>257.</u>  |



The scores in this characteristic achievement via independence were highest among the six characteristics chosen to be tested, with the scores of the senior students of nursing who had done independent study higher than the scores of those who had not done independent study (Figures 13 and 14).

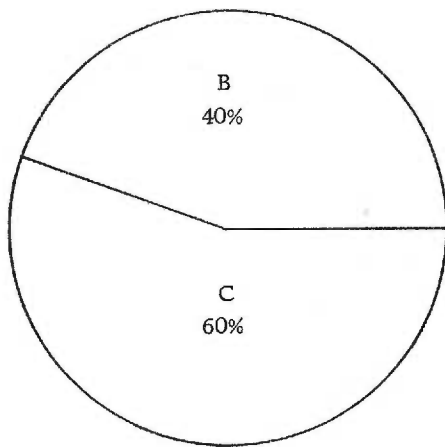


Figure 13. Percent of Standard Scores in Achievement Via Independence According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

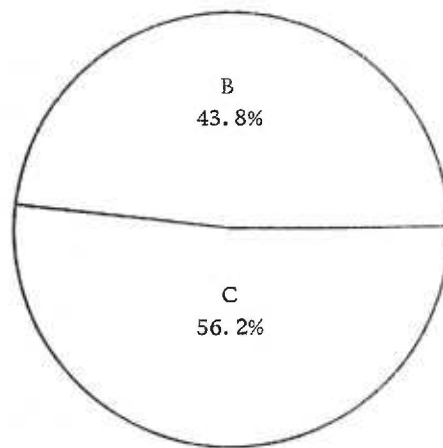


Figure 14. Percent of Standard Scores in Achievement Via Independence According to the California Psychological Inventory of 16 Senior Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

The standard scores in achievement via independence of sophomores in the group who had done independent study indicated a median of 58 and a mean of 54.6. The other group also had a median of 58, but a mean of 61.4 (Table 8). No statistical difference is detected by the rank sums test.

Table 8. Standard Scores in Achievement Via Independence According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study and Seven Sophomore Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.   |   | 72  |  | 1.   |
| 2.5  |   | 70  |  | 2.5  |
| 2.5  |   | 70  |  | 2.5  |
| 4.   | 65  |   | 4.   |  |
| 5.5  | 60  |   | 5.5  |  |
| 5.5  | 60  |   | 5.5  |  |
| 8.   | 58  |   | 8.   |  |
| 8.   | 58  |   | 8.   |  |
| 8.   |   | 58  |  | 8.   |
| 11.  |   | 55  |  | 11.  |
| 11.  |   | 55  |  | 11.  |
| 11.  | 55  |   | 11.  |  |
| 13.  | 52  |   | 13.  |  |
| 14.  |   | 50  |  | 14.  |
| 15.5 | 42  |   | 15.5   |  |
| 15.5 | 42  |   | <u>15.5</u>  |  |
|      |   |   | 86.  | 50.  |

The sophomore students who had not done independent study rated higher in achievement via independence than those who had done independent study as shown in Figures 15 and 16. The sophomore scores were only slightly lower than the seniors in this characteristic, which indicates a high potential for achievement.

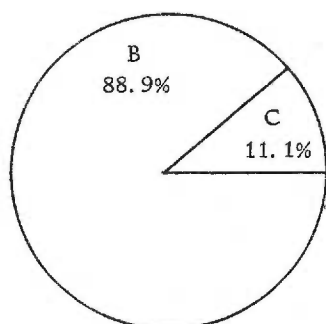


Figure 15. Percent of Standard Scores in Achievement Via Independence According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

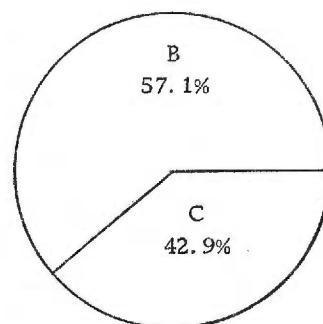


Figure 16. Percent of Standard Scores in Achievement Via Independence According to the California Psychological Inventory of Seven Sophomore Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

The median score in intellectual efficiency (Ie) was 56 for those seniors who had done independent study and 51 for those who had not done independent study (Table 9). The mean of the group who had done independent study was 54.9, the other group had a mean of 50.9. The Z score is 1.76 which is significant at the .084 level, indicating those who have done independent study rate higher in intellectual efficiency than those who have not in this senior class.

Table 9. Standard Scores in Intellectual Efficiency According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study and 16 Senior Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.   | 68  |   | 1.   |  |
| 2.5  |   | 64  |  | 2.5  |
| 2.5  |   | 64  |  | 2.5  |
| 4.   | 62  |   | 4.   |  |
| 6.5  | 58  |   | 6.5  |  |
| 6.5  | 58  |   | 6.5  |  |
| 6.5  | 58  |   | 6.5  |  |
| 6.5  |   | 58  |  | 6.5  |
| 10.5 | 56  |   | 10.5   |  |
| 10.5 | 56  |   | 10.5   |  |
| 10.5 | 56  |   | 10.5   |  |
| 10.5 |   | 56  |  | 10.5   |
| 15.5 | 54  |   | 15.5   |  |
| 15.5 | 54  |   | 15.5   |  |
| 15.5 | 54  |   | 15.5   |  |
| 15.5 |   | 54  |  | 15.5   |
| 15.5 |   | 54  |  | 15.5   |
| 15.5 |   | 54  |  | 15.5   |
| 20.  | 52  |   | 20.  |  |
| 20.  | 52  |   | 20.  |  |
| 20.  |   | 52  |  | 20.  |
| 22.5 | 50  |   | 22.5   |  |
| 22.5 |   | 50  |  | 22.5   |
| 25.5 |   | 48  |  | 25.5   |
| 25.5 |   | 48  |  | 25.5   |
| 25.5 |   | 48  |  | 25.5   |
| 25.5 |   | 48  |  | 25.5   |
| 28.  |   | 47  |  | 28.  |
| 29.  |   | 44  |  | 29.  |
| 30.  | 36  |   | 30   |  |
| 31.  |   | 26  |  | 31.  |
|      |   |   | 195.   | 301.   |

The percentage scores achieved by the senior students of nursing in intellectual efficiency as computed by the California Psychological Inventory are practically the same in both groups, whether they had done independent study or not. The data are shown in Figures 17 and 18.

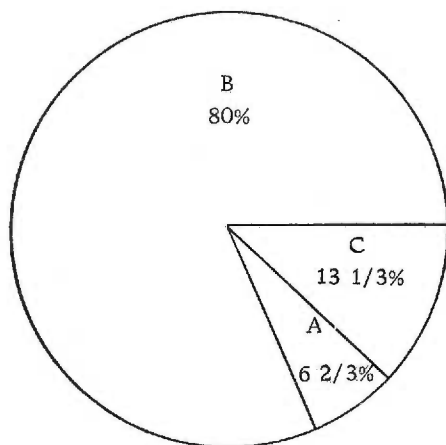


Figure 17. Percent of Standard Scores in Intellectual Efficiency According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

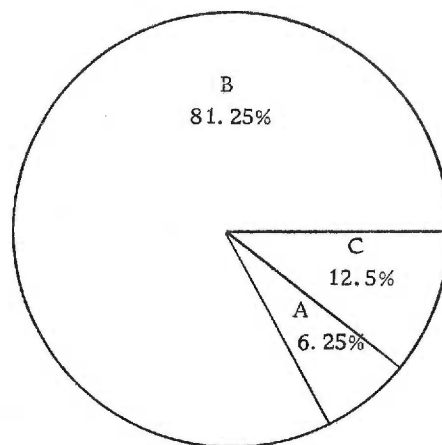


Figure 18. Percent of Standard Scores in Intellectual Efficiency According to the California Psychological Inventory of 16 Senior Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

Scores of both groups of students in the sophomore class in intellectual efficiency resulted in a median of 52. The mean of those

who had done independent study was 50.4 as compared to 54 for the other group (Table 10). The Z score indicated no statistical difference.

Table 10. Standard Scores in Intellectual Efficiency According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study and Seven Sophomore Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.   |   | 66  |  | 1.   |
| 2.5  | 62  |   | 2.5  |  |
| 2.5  |   | 62  |  | 2.5  |
| 4.   | 60  |   | 4.   |  |
| 5.   |   | 58  |  | 5.   |
| 6.   | 56  |   | 6.   |  |
| 8.5  | 52  |   | 8.5  |  |
| 8.5  | 52  |   | 8.5  |  |
| 8.5  | 52  |   | 8.5  |  |
| 8.5  |   | 52  |  | 8.5  |
| 11.  |   | 50  |  | 11.  |
| 12.  | 48  |   | 12.  |  |
| 13.  |   | 46  |  | 13.  |
| 14.  |   | 44  |  | 14.  |
| 15.  | 38  |   | 15.  |  |
| 16.  | 34  |   | 16.  |  |
|      |   |   | 81.  | 55.  |

The students who had not done independent study in the sophomore class rated higher in intellectual efficiency than those who had done independent study. Figures 19 and 20 indicate that 28.6% of the

students who had not done independent study had scores one standard deviation or more over the mean, whereas only 11.1% of those who had done independent study had scores one standard deviation or more above the mean. Twenty-two and two tenths percent of those who had done independent study had scores one standard deviation or more below the mean.

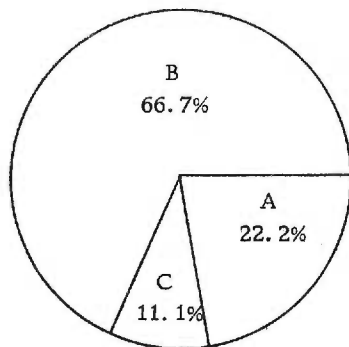


Figure 19. Percent of Standard Scores in Intellectual Efficiency According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

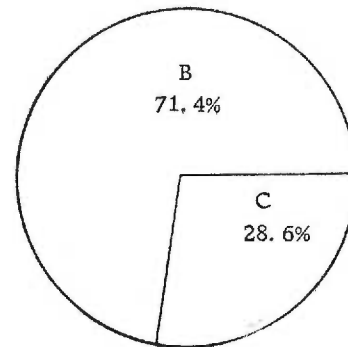


Figure 20. Percent of Standard Scores in Intellectual Efficiency According to the California Psychological Inventory of Seven Sophomore Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

The scores for senior students in flexibility (Fx) resulted in a median for the students who had done independent study of 64 and a mean 60.6. The other group had a median of 50 and a mean of 56.1 (Table 11). The rank sums test was computed to test the difference in the median scores between the two groups. Significance was achieved at the low level of .17.

Table 11. Standard Scores in Flexibility According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study and 16 Senior Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.5  | 73  |   | 1.5  |  |
| 1.5  |   | 73  |  | 1.5  |
| 4.5  | 70  |   | 4.5  |  |
| 4.5  | 70  |   | 4.5  |  |
| 4.5  |   | 70  |  | 4.5  |
| 4.5  |   | 70  |  | 4.5  |
| 7.5  | 67  |   | 7.5  |  |
| 7.5  |   | 67  |  | 7.5  |
| 11.5 |   | 64  |  | 11.5   |
| 11.5 | 64  |   | 11.5   |  |
| 11.5 | 64  |   | 11.5   |  |
| 11.5 | 64  |   | 11.5   |  |
| 11.5 | 64  |   | 11.5   |  |
| 15.5 |   | 61  |  | 15.5   |
| 15.5 |   | 61  |  | 15.5   |
| 18.  | 59  |   | 18.  |  |
| 18.  | 59  |   | 18.  |  |
| 18.  | 59  |   | 18.  |  |
| 20.  | 53  |   | 20.  |  |
| 23.  |   | 50  |  | 23.  |
| 23.  |   | 50  |  | 23.  |
| 23.  |   | 50  |  | 23.  |
| 23.  |   | 50  |  | 23.  |
| 23.  |   | 50  |  | 23.  |
| 27.  |   | 47  |  | 27.  |
| 27.  |   | 47  |  | 27.  |
| 27.  | 47  |   | 27.  |  |
| 29.5 |   | 44  |  | 29.5   |
| 29.5 |   | 44  |  | 29.5   |
| 31.  | 33  |   | <u>31.</u>   | <u>          </u>  |
|      |   |   | 207.5  | 288.5  |



Higher scores in flexibility were achieved by more who had done independent study than who had not. Sixty percent of those who had done independent study had scores one standard deviation or more above the mean whereas those who had not done independent study had 43.8% in this classification. Those who had done independent study had 6.6% with scores one standard or more below the mean. The scores in flexibility indicate that the students are very adaptable. This is consistent with the viewpoint that the goal of education is facilitation of change and learning. Findings are shown in Figures 21 and 22.

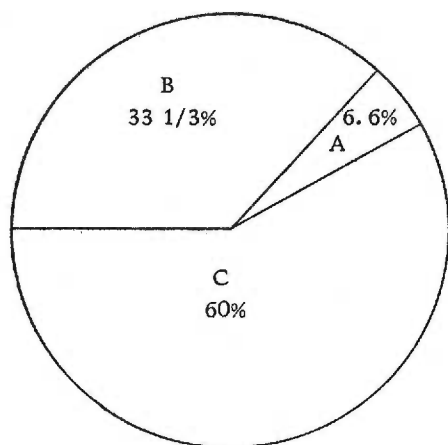


Figure 21. Percent of Standard Scores in Flexibility According to the California Psychological Inventory of 15 Senior Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

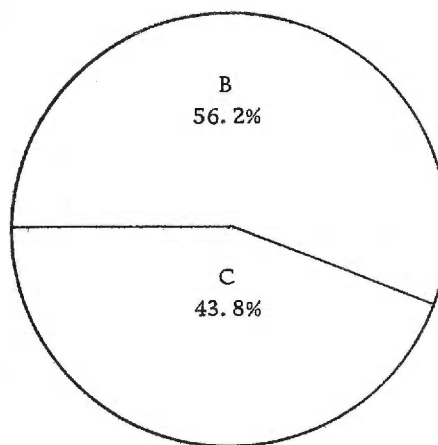


Figure 22. Percent of Standard Scores in Flexibility According to the California Psychological Inventory of 16 Senior Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

The median standard score in flexibility for the sophomores who had done independent study was 64 and the mean 63. The median for the other group was 59, with a mean of 58.5 (Table 12). No statistical difference was noted by the Z score.

Table 12. Standard Scores in Flexibility According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study and Seven Sophomore Students of Nursing Who Have Not Done Independent Study With Their Ranks.

| Rank | Scores rec'd<br>by those who<br>have done<br>independent<br>study | Scores rec'd<br>by those who<br>have not done<br>independent<br>study | Ranks rec'd<br>by those who<br>have done<br>independent<br>study | Ranks rec'd<br>by those who<br>have not done<br>independent<br>study |
|------|---|---|--|--|
| 1.5  | 73  |   | 1.5  |  |
| 1.5  |   | 73  |  | 1.5  |
| 3.5  | 67  |   | 3.5  |  |
| 3.5  | 67  |   | 3.5  |  |
| 6.   | 64  |   | 6.   |  |
| 6.   | 64  |   | 6.   |  |
| 6.   |   | 64  |  | 6.   |
| 9.5  | 61  |   | 9.5  |  |
| 9.5  | 61  |   | 9.5  |  |
| 9.5  | 61  |   | 9.5  |  |
| 9.5  |   | 61  |  | 9.5  |
| 12.5 |   | 59  |  | 12.5   |
| 12.5 |   | 59  |  | 12.5   |
| 14.  | 50  |   | 14.  |  |
| 15.5 |   | 47  |  | 15.5   |
| 15.5 |   | 47  |  | <u>15.5</u>  |
|      |   |   | 63.  | 73,  |

Figures 23 and 24 show that the sophomore students who had done independent study rated higher in flexibility than those who had not. Approximately 90% had scores one standard deviation or more above the mean. Those who had not done independent study had 42.8% in this grouping.

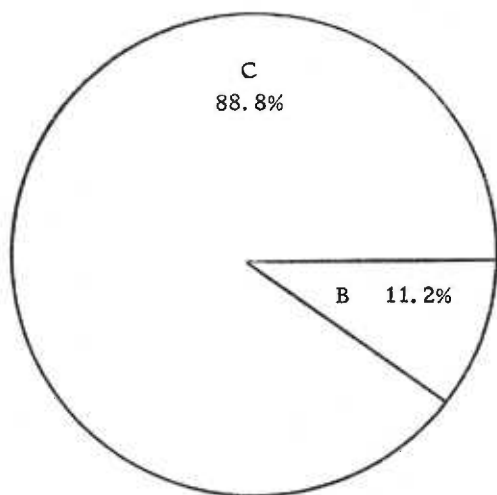


Figure 23. Percent of Standard Scores in Flexibility According to the California Psychological Inventory of Nine Sophomore Students of Nursing Who Have Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

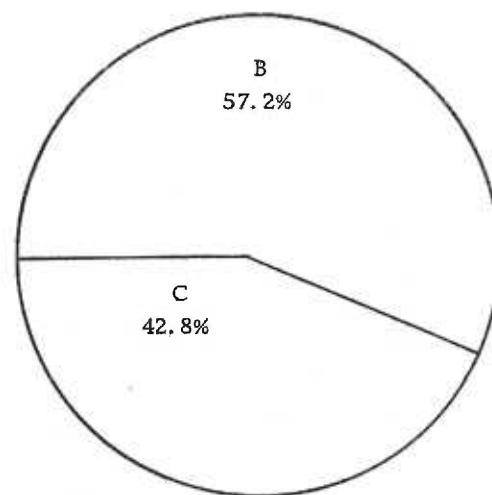


Figure 24. Percent of Standard Scores in Flexibility According to the California Psychological Inventory of Seven Sophomore Students of Nursing Who Have Not Done Independent Study.

Code: A scores 39 and under  
 B scores 40-60  
 C scores 61 and over

## CHAPTER IV

### SUMMARY

This descriptive study was done to determine whether there was an association between the personality characteristics of students and their choice of method of study. The population consisted of 34 senior and 16 sophomore nursing students enrolled in a baccalaureate program who volunteered to fill in a questionnaire and take the California Psychological Inventory. The questionnaire was designed to determine the method of study the student would prefer. The California Psychological Inventory, a standardized test, was used to determine personality characteristics. Only six of the personality characteristics in the California Psychological Inventory were used in this study. These were the ones which the literature and nursing educators indicated were important for those choosing to study by the independent study method.

#### Findings

The students scores in well-being and responsibility were unaffected by whether or not they had done independent study.

All the students rated high in achievement via independence.

The students who had done independent study were more flexible than those who had not done independent study.

Twenty-four seniors indicated they would try independent study, eight did not respond and two responded negatively.

Twelve sophomores indicated they would try independent study, three left the question blank and one said she would not try independent study.

Twenty-nine seniors indicated they would recommend independent study to others, two would not recommend it and three left the question blank.

Thirteen of the sophomores said they would recommend independent study to others, two would not and one did not respond.

Twenty-six of the senior students regarded their instructors as facilitators of learning.

The null hypothesis was accepted: There is no difference between personality characteristics of those who choose independent study and those who do not. The rank sums test revealed no significant difference between the scores achieved on the California Psychological Inventory and the choice of independent study.

On the basis of the data collected it was indicated that the participants in this study would choose to do independent study and that they would recommend it to others.

### Conclusions

The small population for this study limited the collection of sufficient data to permit drawing conclusions. It became apparent that the study should be regarded as a pilot study providing baseline data for revising the process before undertaking a replication.

### Recommendations for Further Study

On the basis of the findings of this study, further studies are suggested.

1. Choose a group of students who have never done independent study. Identify the scores of their characteristics using the California Psychological Inventory. Assign a group of volunteers to independent study. Determine which characteristics correlate with success in independent study.
2. Use an experimental and a control group of students with similar scores on the characteristics as listed on the California Psychological Inventory. The experimental group would be assigned independent study methods while the control group would participate in a conventional learning situation. The scores obtained on the California Psychological Inventory following completion of the course would be

compared to determine if the method of instruction influences the characteristics. End of term grades for each group would be compared.

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APPENDICES

APPENDIX A

Questionnaire for Students of Nursing Regarding  
Independent Study

## APPENDIX A

Questionnaire for Students of Nursing Regarding  
Independent Study

## Directions:

If your answer is positive put an "X" in the "Yes" column, if it is negative put an "X" in the "No" column.

|  | Yes   | No    |
|--|-------|-------|
| 1. Have you even taken a course for which credit was received through some form of independent study?                | _____ | _____ |
| 2. Would you recommend this form of study to others?   | _____ | _____ |
| 3. If you have never tried a course where you learn by the independent study method would you be willing to try one? | _____ | _____ |
| 4. Do you watch educational programs on television?  | _____ | _____ |
| 5. Are you an Associate Degree Nurse?  | _____ | _____ |
| 6. Are you a Diploma Nurse?  | _____ | _____ |
| 7. Are you a Licensed Practical Nurse?   | _____ | _____ |
| 8. Do you see your instructors in nursing as facilitators of learning?   | _____ | _____ |
| 9. Do you see your instructors in nursing as lecturers?  | _____ | _____ |



APPENDIX B

Pilot Study Data

APPENDIX B

Data Collected From Eight Senior Students of Nursing by the California Psychological Inventory and the Questionnaire in Appendix A

| No. | Wb | Re | Sc | Ai | Ie | Fx | Age | Independent study |                 | Watches educational TV | Ass. degree nurse | Diploma nurse | L. P. N. | Instrc. Factr. | Instrc. Lectr. |
|-----|----|----|----|----|----|----|-----|-------------------|-----------------|------------------------|-------------------|---------------|----------|----------------|----------------|
|     |    |    |    |    |    |    |     | Have done         | Would recommend |                        |                   |               |          |                |                |
| 1.  | 37 | 32 | 35 | 21 | 37 | 7  | 39  | yes               | no              | yes                    | yes               | yes           |          | yes            | no             |
| 2.  | 42 | 33 | 41 | 22 | 45 | 9  | 39  | yes               | yes             | yes                    |                   | yes           |          | yes            | yes            |
| 3.  | 42 | 28 | 30 | 23 | 41 | 16 | 22  | yes               | yes             | yes                    | yes               |               |          | yes            | yes            |
| 4.  | 38 | 31 | 34 | 21 | 40 | 17 | 21  | yes               | no              | 0                      |                   |               |          | yes            | yes            |
| 5.  | 31 | 33 | 29 | 24 | 38 | 9  | 23  | yes               | no              | 0                      |                   |               |          | yes            | yes            |
| 6.  | 34 | 27 | 29 | 16 | 29 | 8  | 21  | yes               | yes             | 0                      |                   |               |          | no             | no             |
| 7.  | 33 | 31 | 22 | 21 | 38 | 10 | 0   | no                | 0               | yes                    | yes               |               |          | yes            | yes            |
| 8.  | 36 | 33 | 35 | 16 | 34 | 8  | 0   | no                | yes             | yes                    | yes               |               |          | yes            | no             |

Pilot study was done on eight senior students of nursing in a baccalaureate school of nursing, who volunteered to answer the questionnaire and the California Psychological Inventory. The abbreviations are the ones used by Gough, Wb for sense of well-being, Re for responsibility, Sc for self-control, Ai for achievement by independence, Ie for intellectual efficiency and Fx for flexibility.

## APPENDIX C

Data Collected From 34 Senior Students of Nursing by the  
California Psychological Inventory and the Questionnaire  
in Appendix A

APPENDIX C

Data Collected From 34 Senior Students of Nursing by the California Psychological Inventory and the Questionnaire in Appendix A

| No. | Wb | Re | Sc | Ai | Ie | Fx | Age | Independent study |                 |           | Watches        |     | Ass. degree nurse | Diploma nurse | L. P. N. | Instruc. Factr. | Instruc. Lectr. |
|-----|----|----|----|----|----|----|-----|-------------------|-----------------|-----------|----------------|-----|-------------------|---------------|----------|-----------------|-----------------|
|     |    |    |    |    |    |    |     | Have done         | Would recommend | Would try | educational TV |     |                   |               |          |                 |                 |
| 1.  | 38 | 34 | 25 | 20 | 43 | 12 | 22  | yes               | yes             | 0         | yes            | yes |                   |               | yes      | yes             |                 |
| 2.  | 40 | 36 | 31 | 18 | 40 | 3  | 23  | yes               | yes             | yes       | no             |     |                   |               | yes      | yes             |                 |
| 3.  | 33 | 31 | 30 | 25 | 38 | 16 | 0   | no                | yes             | yes       | yes            |     |                   |               | yes      | no              |                 |
| 4.  | 38 | 30 | 30 | 26 | 42 | 10 | 0   | yes               | yes             | yes       | yes            |     |                   |               | yes      | no              |                 |
| 5.  | 40 | 32 | 32 | 21 | 41 | 8  | 0   | yes               | yes             | yes       | yes            |     |                   |               | yes      | no              |                 |
| 6.  | 33 | 28 | 35 | 21 | 27 | 8  | 23  | no                | yes             | yes       | no             |     |                   |               | yes      | yes             |                 |
| 7.  | 36 | 29 | 44 | 23 | 36 | 7  | 21  | no                | no              | yes       | no             |     |                   |               | yes      | yes             |                 |
| 8.  | 35 | 25 | 28 | 22 | 38 | 9  | 23  | no                | yes             | yes       | no             |     |                   |               | yes      | yes             |                 |
| 9.  | 35 | 25 | 25 | 23 | 43 | 17 | 22  | no                | yes             | yes       | no             |     |                   |               | no       | yes             |                 |
| 10. | 36 | 31 | 21 | 27 | 48 | 17 | 23  | 0                 | yes             | yes       | yes            |     |                   |               | yes      | yes             |                 |
| 11. | 37 | 29 | 26 | 26 | 38 | 13 | 22  | no                | yes             | yes       | yes            |     |                   |               | yes      | yes             |                 |
| 12. | 37 | 28 | 28 | 24 | 39 | 9  | 0   | no                | yes             | yes       | yes            |     |                   |               | yes      | yes             |                 |
| 13. | 39 | 34 | 42 | 27 | 40 | 13 | 22  | no                | yes             | yes       | no             |     |                   |               | yes      | yes             |                 |
| 14. | 36 | 30 | 31 | 18 | 38 | 9  | 23  | no                | 0               | yes       | no             |     |                   |               | yes & no | no              |                 |
| 15. | 39 | 30 | 31 | 21 | 41 | 9  | 22  | no                | yes             | no        | no             |     |                   |               | yes & no | yes & no        |                 |
| 16. | 41 | 31 | 41 | 27 | 45 | 17 | 27  | yes               | yes             | yes       | yes            |     |                   |               | yes      | yes             |                 |
| 17. | 37 | 29 | 26 | 25 | 42 | 8  | 21  | no                | yes             | yes       | no             |     |                   |               | yes      | no              |                 |
| 18. | 39 | 37 | 41 | 27 | 40 | 16 | 22  | yes               | yes             | 0         | yes            |     |                   |               | yes      | yes             |                 |

| No. | Wb | Re | Sc | Ai | Ie | Fx | Age | Independent study |                 | Watches educational TV | Ass. degree nurse | Diploma nurse | L. P. N. | Instrc. Factr. | Instrc. Lectr. |
|-----|----|----|----|----|----|----|-----|-------------------|-----------------|------------------------|-------------------|---------------|----------|----------------|----------------|
|     |    |    |    |    |    |    |     | Have done         | Would recommend |                        |                   |               |          |                |                |
| 19. | 35 | 31 | 24 | 26 | 41 | 9  | 21  | no                | yes             | yes                    |                   |               |          | no             | yes            |
| 20. | 36 | 26 | 20 | 19 | 38 | 7  | 21  | no                | yes             | yes                    |                   |               |          | yes            | yes            |
| 21. | 43 | 31 | 41 | 27 | 46 | 16 | 22  | no                | 0               | yes                    |                   |               |          | yes            | no             |
| 22. | 35 | 21 | 41 | 15 | 39 | 12 | 21  | yes               | yes             | yes                    |                   |               |          | no             | yes            |
| 23. | 34 | 26 | 19 | 22 | 32 | 14 | 22  | yes               | yes             | 0                      |                   |               |          | 0              | no             |
| 24. | 37 | 28 | 30 | 21 | 43 | 15 | 23  | yes               | yes             | yes                    |                   |               |          | yes            | yes            |
| 25. | 39 | 29 | 33 | 27 | 41 | 14 | 22  | yes               | no              | 0                      |                   |               |          | yes            | yes            |
| 26. | 42 | 30 | 33 | 25 | 43 | 14 | 23  | yes               | yes             | yes                    |                   |               |          | yes            | no             |
| 27. | 41 | 29 | 34 | 27 | 41 | 15 | 22  | no                | 0               | yes                    |                   |               |          | no             | no             |
| 28. | 37 | 36 | 29 | 25 | 47 | 11 | 35  | 0                 | yes             | yes                    |                   |               |          | yes            | yes            |
| 29. | 42 | 36 | 35 | 23 | 43 | 8  | 25  | 0                 | yes             | yes                    |                   |               |          | yes            | no             |
| 30. | 40 | 32 | 38 | 28 | 41 | 14 | 0   | yes               | yes             | 0                      |                   |               |          | no             | yes            |
| 31. | 34 | 26 | 24 | 24 | 42 | 12 | 23  | yes               | yes             | yes                    |                   |               |          | yes            | yes            |
| 32. | 38 | 36 | 27 | 22 | 46 | 14 | 22  | no                | yes             | yes                    |                   |               |          | yes            | yes            |
| 33. | 40 | 36 | 34 | 24 | 48 | 14 | 43  | yes               | yes             | yes                    |                   |               |          | yes            | yes            |
| 34. | 42 | 37 | 35 | 28 | 42 | 16 | 44  | yes               | yes             | yes                    |                   |               |          | yes            | yes            |

APPENDIX D

Data Collected From 16 Sophomore Students of Nursing by  
the California Psychological Inventory and the  
Questionnaire in Appendix A

APPENDIX D

Data Collected From 16 Sophomore Students of Nursing by the California Psychological Inventory and the Questionnaire in Appendix A

| No. | Wb | Re | Sc | Ai | Ie | Fx | Age | Independent study |                 | Watches educational TV | Ass. degree nurse | Diploma nurse | L. P. N. | Instrc. Fabr. | Instrc. Lectr. |
|-----|----|----|----|----|----|----|-----|-------------------|-----------------|------------------------|-------------------|---------------|----------|---------------|----------------|
|     |    |    |    |    |    |    |     | Have done         | Would recommend |                        |                   |               |          |               |                |
| 1.  | 42 | 32 | 39 | 25 | 42 | 9  | 0   | yes               | yes             | yes                    | yes               | no            | yes      | no            |                |
| 2.  | 38 | 33 | 29 | 27 | 45 | 13 | 19  | no                | 0               | yes                    | yes               | yes           | yes      | yes           |                |
| 3.  | 29 | 25 | 24 | 20 | 33 | 13 | 0   | yes               | yes             | 0                      | yes               | yes           | yes      | yes           |                |
| 4.  | 42 | 32 | 39 | 21 | 39 | 8  | 0   | no                | yes             | yes                    | no                | no            | yes      | no            |                |
| 5.  | 41 | 30 | 33 | 23 | 40 | 15 | 18  | yes               | yes             | yes                    | yes               | yes           | yes      | yes           |                |
| 6.  | 35 | 26 | 28 | 23 | 40 | 13 | 20  | yes               | yes             | yes                    | yes               | yes           | yes      | no            |                |
| 7.  | 37 | 29 | 27 | 27 | 43 | 17 | 0   | no                | yes             | yes                    | yes               | yes           | yes      | yes           |                |
| 8.  | 31 | 21 | 17 | 16 | 31 | 15 | 20  | yes               | yes             | 0                      | no                | no            | yes      | yes           |                |
| 9.  | 35 | 31 | 26 | 22 | 44 | 17 | 0   | yes               | yes             | yes                    | no                | no            | yes      | yes           |                |
| 10. | 35 | 25 | 25 | 21 | 40 | 14 | 20  | yes               | yes             | 0                      | no                | no            | yes      | 0             |                |
| 11. | 41 | 33 | 39 | 28 | 47 | 12 | 19  | no                | no              | yes                    | yes               | yes           | yes      | yes           |                |
| 12. | 39 | 32 | 25 | 22 | 45 | 14 | 36  | yes               | yes             | yes                    | yes               | yes           | yes      | yes           |                |
| 13. | 37 | 26 | 28 | 21 | 40 | 12 | 19  | no                | yes             | yes                    | yes               | yes           | yes      | yes           |                |
| 14. | 39 | 31 | 28 | 22 | 36 | 14 | 21  | no                | yes             | yes                    | yes               | yes           | yes      | no            |                |
| 15. | 33 | 31 | 37 | 19 | 37 | 8  | 18  | no                | no              | yes                    | yes               | yes           | yes      | yes           |                |
| 16. | 27 | 31 | 11 | 16 | 38 | 13 | 20  | yes               | yes             | yes                    | no                | no            | yes      | yes           |                |

APPENDIX E

Standard Scores From 34 Senior Students of Nursing on the  
California Psychological Inventory With Their Response  
Whether They Have Done Independent Study or Have Not  
Done Independent Study



## APPENDIX E

Standard Scores From 34 Senior Students of Nursing on the California Psychological Inventory  
With Their Response Whether They Have Done Independent Study or Have Not Done Independent Study

| No.  | Wb | Re | Sc | Ai | Ie | Fx | <u>Independent study</u> |               |
|------|----|----|----|----|----|----|--------------------------|---------------|
|      |    |    |    |    |    |    | Have done                | Have not done |
| 1.   | 51 | 54 | 40 | 52 | 58 | 59 | x                        |               |
| 2.   | 56 | 58 | 49 | 48 | 52 | 33 | x                        |               |
| 3.   | 40 | 48 | 47 | 65 | 47 | 70 |                          | x             |
| 4.   | 51 | 46 | 47 | 68 | 56 | 53 | x                        |               |
| 5.   | 56 | 50 | 50 | 55 | 54 | 47 | x                        |               |
| 6.   | 40 | 41 | 54 | 55 | 26 | 47 |                          | x             |
| 7.   | 47 | 44 | 67 | 60 | 44 | 44 |                          | x             |
| 8.   | 44 | 35 | 44 | 58 | 48 | 50 |                          | x             |
| 9.   | 44 | 35 | 40 | 60 | 58 | 73 |                          | x             |
| 10.  | 47 | 48 | 35 | 70 | 66 | 73 | no response              |               |
| 11.  | 49 | 44 | 42 | 68 | 48 | 61 |                          | x             |
| 12.  | 49 | 41 | 44 | 62 | 50 | 50 |                          | x             |
| 13.  | 53 | 54 | 64 | 70 | 52 | 61 |                          | x             |
| 14.  | 47 | 46 | 49 | 48 | 48 | 50 |                          | x             |
| 15.  | 53 | 46 | 49 | 55 | 54 | 50 |                          | x             |
| 16.  | 58 | 48 | 62 | 70 | 62 | 73 | x                        |               |
| 17.  | 49 | 44 | 42 | 65 | 56 | 47 |                          | x             |
| 18.  | 53 | 60 | 62 | 70 | 52 | 70 | x                        |               |
| 19.  | 44 | 56 | 39 | 68 | 54 | 50 |                          | x             |
| 20.  | 47 | 37 | 33 | 50 | 48 | 44 |                          | x             |
| *21. | 64 | 50 | 63 | 70 | 64 | 70 |                          | x             |
| 22.  | 44 | 27 | 62 | 40 | 50 | 59 | x                        |               |
| 23.  | 42 | 37 | 32 | 58 | 36 | 64 | x                        |               |
| 24.  | 49 | 41 | 47 | 55 | 58 | 67 | x                        |               |
| 25.  | 53 | 44 | 51 | 70 | 54 | 64 | x                        |               |
| 26.  | 60 | 46 | 51 | 65 | 58 | 64 | x                        |               |
| 27.  | 58 | 44 | 53 | 70 | 54 | 67 |                          | x             |
| 28.  | 49 | 58 | 46 | 65 | 66 | 56 | no response              |               |
| 29.  | 60 | 58 | 54 | 60 | 58 | 47 | no response              |               |
| 30.  | 56 | 50 | 58 | 72 | 54 | 64 | x                        |               |
| 31.  | 42 | 37 | 39 | 62 | 56 | 59 | x                        |               |
| 32.  | 51 | 58 | 43 | 70 | 64 | 64 |                          | x             |
| 33.  | 56 | 58 | 53 | 62 | 68 | 64 | x                        |               |
| 34.  | 60 | 60 | 54 | 72 | 56 | 70 | x                        |               |

\* Student number 21 was a male and his raw score was computed on the norms for males

## APPENDIX F

Standard Scores From 16 Sophomore Students of Nursing of  
the California Psychological Inventory With Their Response  
Whether They Have Done Independent Study or Have Not  
Done Independent Study

## APPENDIX F

Standard Scores From 16 Sophomore Students of Nursing on the California Psychology Inventory With Their Response Whether They Have Done Independent Study or Have Not Done Independent Study

| No. | Wb | Re | Sc | Ai | Ie | Fx | <u>Independent study</u> |               |
|-----|----|----|----|----|----|----|--------------------------|---------------|
|     |    |    |    |    |    |    | Have done                | Have not done |
| 1.  | 60 | 50 | 60 | 65 | 56 | 50 | x                        |               |
| 2.  | 51 | 52 | 46 | 70 | 62 | 61 |                          | x             |
| 3.  | 30 | 35 | 39 | 52 | 38 | 61 | x                        |               |
| 4.  | 60 | 50 | 60 | 55 | 50 | 47 |                          | x             |
| 5.  | 58 | 46 | 51 | 60 | 52 | 67 | x                        |               |
| 6.  | 44 | 37 | 44 | 60 | 52 | 61 | x                        |               |
| 7.  | 49 | 44 | 43 | 70 | 58 | 73 |                          | x             |
| 8.  | 35 | 27 | 29 | 42 | 34 | 67 | x                        |               |
| 9.  | 44 | 48 | 42 | 58 | 60 | 73 | x                        |               |
| 10. | 44 | 35 | 40 | 55 | 52 | 64 | x                        |               |
| 11. | 58 | 52 | 60 | 72 | 66 | 59 |                          | x             |
| 12. | 53 | 50 | 40 | 58 | 62 | 64 | x                        |               |
| 13. | 49 | 37 | 44 | 55 | 52 | 59 |                          | x             |
| 14. | 53 | 48 | 44 | 58 | 44 | 64 |                          | x             |
| 15. | 40 | 48 | 57 | 50 | 46 | 47 |                          | x             |
| 16. | 26 | 48 | 21 | 42 | 48 | 61 | x                        |               |

AN ABSTRACT OF THE THESIS

AN ABSTRACT OF THE THESIS OF  
CLEO GRIFFITH

for the Master of Science in Nursing Education

Date of receiving this degree: June 9, 1972

Title: STUDY OF THE RELATIONSHIP OF CERTAIN IDENTIFIABLE  
PERSONALITY CHARACTERISTICS OF THIRTY-FOUR  
SENIOR AND SIXTEEN SOPHOMORE STUDENTS OF NURSING  
TO THE CHOICE OF INDEPENDENT STUDY

Approved: \_\_\_\_\_  
(Associate Professor in Charge of Thesis)

This study was undertaken for the purpose of determining whether there was a relationship between the personality characteristics of students and their method of study.

Following a review of literature which included information on independent study and the personality characteristics of those doing independent study and studies where this method was used, a pilot study was conducted. The population for this descriptive study was 34 senior and 16 sophomore students of nursing in a baccalaureate program who volunteered to fill in a questionnaire about independent

study and take the California Psychological Inventory. The first question on the questionnaire was to find out if the students had ever done independent study, the second question aimed at the students' attitudes about recommending it to someone else, the third item was in regard to the students' interests in undertaking independent study. Sixteen of the 34 senior students and nine of the 16 sophomores had done independent study.

### Findings

The students' scores in well-being and responsibility were unaffected by whether or not they had done independent study.

All the students rated high in achievement via independence.

The students who had done independent study were more flexible than those who had not done independent study.

Twenty-four seniors indicated they would try independent study, eight did not respond and two responded negatively.

Twelve sophomores indicated they would try independent study, three left the question blank and one said she would not try independent study.

Twenty-nine seniors indicated they would recommend independent study to others, two would not recommend it and three left the question blank.

Thirteen of the sophomores said they would recommend

independent study to others, two would not and one did not respond.

Twenty-six of the senior students regarded their instructors as facilitators of learning.

The null hypothesis was accepted: There is no difference between personality characteristics of those who choose independent study and those who do not.

#### Recommendations for Further Study

On the basis of the findings of this study, further studies are suggested.

1. Choose a group of students who have never done independent study. Identify the scores of their characteristics using the California Psychological Inventory. Assign a group of volunteers to independent study. Determine which characteristics correlate with success in independent study.
2. Use an experimental and a control group of students with similar scores on the characteristics as listed on the California Psychological Inventory. The experimental group would be assigned independent study methods while the control group would participate in a conventional learning situation. The scores obtained on the California Psychological Inventory following completion of the course would be

compared to determine if the method of instruction influences the characteristics. End of term grades for each group would be compared.



Typed by Clover Redfern