ED 019 705   24   CG 001 915

A COMPARATIVE STUDY OF SECONDARY SCHOOL INDEPENDENT STUDY
PROGRAMS. FINAL REPORT.
BY- EVANS, MARVIN L.
OREGON UNIV., EUGENE
REPORT NUMBER BR-6-8389   PUB DATE   FEB 68
GRANT   OEG-4-6-068389-1301
EDRS PRICE   MF-$1.50   HC-$15.52   386P.

DESCRIPTORS- *PROGRAM EVALUATION, CASE STUDIES (EDUCATION),
*PROGRAM EFFECTIVENESS, *INDEPENDENT STUDY, INDIVIDUAL
INSTRUCTION,

        THE PURPOSE OF THIS STUDY WAS TO IDENTIFY THE
CHARACTERISTICS WHICH CONTRIBUTE TO SUCCESSFUL SECONDARY
SCHOOL INDEPENDENT STUDY PROGRAMS (ISPS). THE METHOD CHOSEN
TO ACCOMPLISH THIS PURPOSE INVOLVED THREE STEPS--(1) THE
IDENTIFICATION OF THE INDEPENDENT STUDY PROGRAM
CHARACTERISTICS RECOMMENDED IN THE LITERATURE, (2) CASE
STUDIES OF THREE HIGHLY SUCCESSFUL AND SIX LESS SUCCESSFUL
ISPS, AND (3) COMPARISONS OF THE CHARACTERISTICS IDENTIFIED
IN THE FIRST TWO STEPS. OF THE 18 MAJOR CONCLUSIONS
PRESENTED, THE MOST IMPORTANT IS THAT OBJECTIVES ARE MORE
FREQUENTLY DISCUSSED AND BETTER UNDERSTOOD IN SUCCESSFUL
PROGRAMS THAN THEY ARE IN LESS SUCCESSFUL ONES. (AUTHOR/RD)

A COMPARATIVE STUDY OF SECONDARY SCHOOL INDEPENDENT STUDY PROGRAMS

Marvin LeRoy Evans
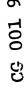
University of Oregon

Eugene, Oregon

February 1968

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
Bureau of Research

TABLE OF CONTENTS

TABLE OF CONTENTS - continued

LIST OF TABLES

LIST OF TABLES - continued

LIST OF TABLES - continued

LIST OF TABLES - continued

LIST OF TABLES - continued

LIST OF TABLES - continued

LIST OF TABLES - continued

ACKNOWLEDGMENTS

The writer wishes to express his sincere appreciation to the

dissertation adviser, Dr. Arthur C. Hearn, for his encouragement and

helpful criticism during the development of this study, and to the other

committee members: Dr. Paul E. Kambly, Dr. J. Francis Rummel,

Dr. Kenneth Erickson and Professor Roy P. Nelson.

Numerous individuals contributed of their time and energy to

make this study possible. Particular appreciation is due to the nine

high schools in which data were collected and the U.S. Office of

Education for supplying the necessary financial support.

Finally, the writer makes most grateful acknowledgment to his

wife, Rojean, and his children, Matt and Meg, whose sacrifices have

made the completion of this work possible.

<div align="right">M. L. E.</div>

An Abstract of the Thesis of

Marvin LeRoy Evans   for the degree of   Doctor of Education

in the School of Education   to be taken   March 1968

Title: A Comparative Study of Secondary School Independent Study
        Programs

Approved: _____
                    (Thesis Adviser, Arthur C. Hearn)

Statement of the Problem

The purpose of this study was to identify the characteristics of

certain secondary school independent study programs to determine the

relationship between these characteristics and the effectiveness of the

program, and to compare these existing characteristics to those

recommended in the literature. Specific attention was given to 12

characteristic areas: (1) program objectives; (2) staff leadership;

(3) general organization for instruction; (4) independent study

program organization; (5) origin of study activities; (6) motivation

techniques; (7) preparation of students; (8) supervision of students;

(9) physical facilities; (10) material and human resources;

(11) evaluation; and (12) staff in-service activities.

Procedures

The independent study programs in nine schools were classified, with advice from a panel of five national experts, as successful independent study programs or as less successful independent study programs. Case studies were written for each of the nine programs using data collected during a three-day visit to each program. Data collection techniques included observations, interviews, and questionnaires. Samples within each school included about 45 students at each grade level, at least 60 per cent of the teachers, all administrators, a librarian, an audio visual specialist, and other individuals having information about the independent study program.

Comparisons were then made between characteristics found in successful programs, those found in less successful programs, and those recommended in the literature.

Summary of the Results

1. The extent to which staff members gave attention to and were knowledgeable about program objectives was a factor in the success of the program.

2. When teachers were asked to identify the objectives which had received the greatest emphasis in the I.S. program in their schools,

similar responses were received in the successful and in the less

successful programs. Slightly more emphasis was placed on pro-

viding for individual student differences and on developing an inquiring

mind in the successful programs.

3. The ability of teachers to identify sources of strong leader-

ship in the independent study program was positively related to the

success of that program.

4. The source of leadership vas not as important as the fact

that leadership existed. Teachers in successful I. S. programs

identified three different sources of primary leadership--the

principal, other administrators, and a committee of teachers.

5. Teachers in successful programs assumed greater leadership

responsibilities than did those in less successful programs.

6. Successful programs provided more opportunities for each

student to be engaged in learning activities uniquely fitted to his needs

than did less successful programs. There was greater emphasis on

analysis of individual needs and more willingness to allow students

to deviate from the standard program.

7. Teachers in successful programs were provided with time

to work individually with students in their I. S. activities.

8. Successful programs placed slightly more limits on student

movements during I. S. time and were more consistent in enforcing

these limits than were less successful programs. (The most common limits consisted of restricting student movement between study areas to the passing time between modules and requiring students to stay on campus during the school day.)

9. Successful schools deliberately built into the program a wide variety of motivational techniques designed to stimulate student interest in independent study activities.

10. Students in successful programs felt that greater pressure was exerted on them to make productive use of their I.S. time than did students in less successful programs. These pressures were identified as coming from grades, teachers, parents, other adults, and other students.

11. Students in successful programs received more help from teachers, both in class and outside of class, in developing an under-standing of the independent study program and adjusting to it.

12. The use of aides, selected for their ability to provide assistance to students, increased the effectiveness of an independent study program.

13. Suitable physical facilities were important but were provided without extensive remodeling in most existing school plants.

14. The ways in which physical facilities were used was as important as the actual design of those facilities.

15. Superior independent study programs provided student· ith easy accessibility to a good collection of printed and AV resources designed to take care of a broad range of interests and abilities.

16. Students in successful programs were given more encouragement by, and actually made more use of, their own teachers and other teachers in connection with their I.S. work than did students in less successful programs.

17. Teachers in successful programs provided more help for students in evaluating their own progress than did teachers in less successful programs.

18. Substantially greater effort was placed on in-service activities pertaining to the independent study program in successful programs than in less successful programs.

CHAPTER I

INTRODUCTION

Among the problems confronting America's secondary schools

today are increased enrollments, shortage of competent teachers,

and greater numbers of students going on to universities. In addition

contemporary writings in education reflect an increased intent to

reappraise, and in many cases to redesign, the student's role as an

autonomous or semiautonomous participant in the educative process.[1]

One manifestation of the concern for these factors has been the

renewed interest in the independent study program. Within the last

five years six Oregon high schools - Bend, Marshall, Willamette,

Sheldon, Junction City, and Jackson - have inaugurated school-wide

---

[1] Jacques Barzun, Teacher in America, Boston: Little, Brown and Co., 1945; David W. Beggs and Edward G. Buffie, editors, Independent Study, Bloomington, Indiana: Indiana University Press, 1965; Jerome S. Bruner, On Knowing, Cambridge: The Belknap Press of Harvard University Press, 1962; J. R. Suchman, "Inquiry Training: Building Skills for Autonomous Inquiry," Merrill Palmer Quarterly, 7, July, 1961, 147-69; Herbert A. Thelan, Education and the Human Quest, New York: Harper and Brothers, 1960; J. Lloyd, Trump and Dorsey Baynham, Guide to Better Schools, Chicago: Rand McNally and Co., 1961.

programs which include independent study as an integral part. Several

other Oregon schools plan to adopt similar programs in the near future.

Furthermore, at the request of the participants in four summer work-

shops for Oregon secondary schools principals,[1] these workshops

have been devoted to the principles of flexible scheduling and to its

problems, among which provision for independent study is central.

Educators whose schools either now employ flexible scheduling

or plan its adoption soon as well as the participants in these

principals' workshops identify independent study as the particular

aspect of flexible scheduling which most concerns them.

A national concern for the same problem is reflected in the

National Association of Secondary School Principals' request for

information on this topic from its membership.[2] NASSP has also

been involved in a nine year "Staff Utilization" study, with independent

study as one of its major focal points.[3]

Although a review of the literature reveals a strong case for

the independent study program and identifies numerous reports on both

---

[1]Workshops during summers of 1962, 1963, 1965, 1966, jointly sponsored by the Oregon Association of Secondary School Principals, The University of Oregon, and the State Department of Education.

[2]NASSP Spotlight, 6:, January-February, 1965, p. 1.

[3]National Association of Secondary School Principals, The Bulletin, 46, January, 1962, entire issue.

theoretical and functioning programs, a paucity of research-based data

becomes apparent when the search begins for foundations on which a

school or school system may build an independent study program. A

few reports are available in which an evaluation of a program and

a description of that program are presented. One of the better

documented of these is from the University of Chicago laboratory

school.[1]

But no literature was found which attempted any correlation between

the degree of success of a secondary program and the characteristics

of such a program. It is the author's hope that this study is a first

step in filling that void. This study uses independent study program

characteristics recommended in the literature as a base line against

which to compare existing practices in the schools studied and some

analyses have been made as to the effectiveness of the existing

practices.

Purpose

The general purpose of this study is to identify the character-

istics of certain secondary school independent study programs.

---

[1]Willard J. Congreve, "Learning Center . . . Catalyst for
Change ?" Educational Leadership, 21, January, 1964, pp. 211-13;
Beggs and Buffie, op. cit., Chapter 3.

determine the relationship between these characteristics and the effectiveness of the programs, and compare these existing characteristics to those recommended in the literature.

This study attempts to answer the following specific questions:

1. What are the stated and understood <u>program objectives</u> in functioning independent study programs?

2. What are the general <u>organizations for instruction</u> in schools with independent study programs?

3. What are the independent study program <u>organizational frameworks</u> in existing programs?

4. What are the <u>staff leadership patterns</u>, as related to the independent study program, in existing programs?

5. Where and how do <u>study activities originate</u> in existing programs?

6. What are the student <u>motivation techniques</u> used in existing programs?

7. What are the techniques used to prepare and assist students to make <u>effective use of independent study time</u>?

8. What are the <u>student-supervision practices</u> in existing independent study programs?

9. What <u>physical facilities</u> are used in existing independent study programs?

10. What material and human resources are used, and how are they organized in existing independent study programs?

11. What evaluation procedures are used to determine student and program progress in existing independent study programs?

12. What staff in-service training is done in existing independent study programs?

13. How do each of the items investigated in the above twelve questions differ from what is recommended in the professional literature?

This study defines an independent study program as a program in which at least 50 per cent of all students in a school have at least 20 per cent of their in-school time allotted to independent study rather than to regular class assignments. This independent study work may be either assigned or unassigned and either related or non-related to course requirements. The independent study program is in at least its second year of operation, and it is characterized by freedom of constant supervision of students and implies the belief that all students possess potentialities for self-initiative, resourcefulness, productivity, and self-evaluation. [1]

---

[1] Basic idea taken from William M. Griffin, "A Study of the Relationship of Certain Characteristics of High School Seniors to Effectiveness in Independent Study." (unpublished Doctoral dissertation, Syracuse University, June, 1964), p. 14.

This study considers a secondary school to include grades 10,

11, and 12, and may also include grade 9.

Procedures

Identification of the Population

Secondary schools having independent study programs which

might meet the definitions used in this study were identified from

the literature, state departments of education, and certain individuals

particularly knowledgeable in this subject.

State Directors of Secondary Education in the 48 states were

contacted by letter and asked to identify schools which might fit

within the study.[1] Follow-up cards were sent to those not originally

responding. Replies were received from 42. Seven individuals from

professional associations or universities which have actively worked

with schools operating independent study programs were contacted.

Each of these individuals responsed with a list of suggested schools.

One hundred twenty two schools were tentatively identified as

having an independent study program in operation. Each was queried

by letter as to the following:

---

[1]See Appendix A.

1. The nature of its independent study program.

2. The student enrollment by grade level.

3. The percentage of students participating in the independent study proŭram.

4. The percentage of student in-school time spent in independent study.

5. The number of years the program had been operating.

6. The ability levels of the students participating in the program.[1]

Replies were received from 113 schools, in some cases after a second letter had been sent.

Twenty-three schools were then identified which had independent study programs in at least the second year of operation and in which at least 50 per cent of the students participated for at least 20 per cent of their school day. Five of these schools were eliminated because they had an enrollment of less than one hundred fifty.

Selection of School Sample

To facilitate the identification of independent study program phenomena which lead to program success, as opposed to those which are net beneficial, an attempt was made to select five schools which

---

[1] See Appendix B.

were operating relatively successful programs and five which were operating relatively unsuccessful programs. A panel of five experts was used to make an initial qualitative judgment. The panel was composed of Dr. J. Lloyd Trump, Associate Secretary of the National Association of Secondary School Principals; Dr. J. Paul Anderson, Associate Director, NASSP; Dr. Lloyd S. Michael, Superintendent, Evanston Township High School; Dr. Dwight Allen, Professor of Education, Stanford University; and Dr. Robert Bush, Professor of Education, Stanford University.

Each panel member was given a rating form for each of the twenty-three schools. He was asked to evaluate the independent study program in each school and to identify the sources of information upon which he formed his judgment.[1] Basing their choices on these expert opinions, the researcher, Dr. Arthur Hearn, and Dr. Francis Rummel then selected five successful and five less successful programs. Since in several cases only one or two of the experts had personally observed a particular program, the qualitative judgments (i.e., "successful" or "less successful") were considered to be tentative and subject to review based upon the data collected and the observation of the researcher during this study.

----

[1]See Appendix C.

The ten schools selected were contacted by letter[1] to ask their cooperation in the study. Eight accepted, four in each quality group. A ninth school, whose program bordered on success, was added, resulting in five successful and four less successful programs for the study. Based on the data collected and the observations of the researcher while conducting the study, two programs were re-classified from successful to less successful. The completed study thus identifies three successful and six less successful programs. The evidence to support these two reclassifications is presented in Chapter III.

Selection of Personnel Samples

Teachers. All teachers were asked to complete a data-collection instrument. Table 1 shows the number of teachers in each school and the number of usable responses obtained. In each school each subject area is represented in the sample.

Students. A structured sample of at least 40 students from each grade level in each school was sought, ten above average in academic ability, ten below average, and twenty average. Ability was determined by the most current group scholastic aptitude score

---

[1]See Appendix D.

TABLE 1

NUMBER OF TEACHERS IN EACH SCHOOL AND
NUMBER OF USABLE RESPONSES RECEIVED

School	Number of Teachers[a]	Number Responding	Percentage Responding
A	50	42	84
B	100	80	80
C	68[b]	45	66
D	58	44	76
E	113	70	62
F	39	34	87
G	99	70	71
H	35	25	71
I	55	39	71

[a]All teachers and counselors including part-time and those who
travel between buildings.

[b]Includes grades 7-12.

available in school records. If aptitude scores were not available,

achievement test scores were used. The average range was

$\pm$ 2/3 SD (standard deviation) from the mean; the below-average

range included all scores lower than 2/3 SD below the mean; and the

above-average range included all scores higher than 2/3 SD above the

mean. Students were ramdomly selected within their ability range

and year in school. Table 2 indicates the actual number of students

from whom information was finally obtained. It also shows the distribution of these students by grade level and indicates whether aptitude (Apt) or achievement (Ach) test scores were used in their selection.

TABLE 2

USABLE STUDENT RESPONSES RECEIVED BY
GRADE AND ABILITY LEVEL

Grade	Ability Level[a]	Schools									Total
		A	B	C	D	E	F	G	H	I	
9	L	-	13	7	-	10	9	-	10	12	61
9	A	-	22	25	-	21	28	-	22	20	138
9	H	-	14	12	-	14	12	-	10	11	73
10	L	15	9	4	1	13	7	10	8	10	77
10	A	27	20	23	10	23	18	21	22	27	191
10	H	15	14	14	15	12	12	14	14	15	125
11	L	11	11	8	0	11	10	7	11	9	78
11	A	24	19	26	7	25	23	19	22	22	187
11	H	13	12	11	14	10	11	10	15	12	108
12	L	11	11	7	5	7	11	11	10	10	83
12	A	22	23	22	24	23	25	18	19	26	202
12	H	12	7	14	14	13	13	10	12	12	107
		150	175	173	90	182	179	120	175	186	
Screening Test		Apt	Ach	Ach	Ach	Apt	Apt	Ach	Apt	Ach	

[a]L = low
A = average
H = high

Administrators. Each administrator was asked to complete a data-collecting instrument. Usable responses were obtained from all of them.

Administrative Directors. Each principal was asked to designate one person who was thoroughly familiar with both the development and the present operation of the independent study program. Five principals named themselves and four named another administrative officer. An interview, approximately three hours in length, was completed with each administrative director.

Librarians. The head librarian in each school was interviewed.

Audio-Visual (AV) Directors. The staff member responsible for AV equipment and materials in each school was interviewed.

Other Personnel. Other individuals interviewed were those who had specific information pertinent to the study in each school. These included chairmen of independent study committees and other teachers who were particularly active in the development of the program.

Development of the Instruments

Seven data collecting instruments were designed: (1) Students, (2) Teachers, (3) Administrative Directors, (4) Administrators,

(5) Librarians, (6) AV Directors, and (7) Physical Facilities Data-Sheet.[1] Because of the uniqueness of each program and the need for a complete description of each program, respondents were encouraged to add any information that they felt might help the researcher to get a comprehensive picture of the independent study program, even though the data-collecting instruments might not have specifically identified information of this nature.

Characteristic Areas. The first step in developing the data-collecting instruments was to analyze a theoretical independent study program so that its significant component characteristics might be identified. This analysis resulted in the identification of the anticipated characteristic areas listed in Table 3. These areas were basically derived from sources such as Trump and Baynham.[2] The readings were supplemented by interviews with many practicing educators, notable among which were Dr. Gaynor Petrequin, Principal, Marshall High School, Portland, Oregon; Ray Talbert, Director, The Oregon Compact, Salem, Oregon; Roy Carlson, Principal, Jackson High School, Portland, Oregon; and Dr. Don DeLay, Director of Scheduling Services at Stanford University. This was further supplemented by

---

[1] See Appendices E through K, respectively.

[2] Trump and Baynham, op. cit.

observations at Marshall High School. The final list, as outlined in

Table 3, was then approved by the thesis committee.[1]

TABLE 3

ANTICIPATED CHARACTERISTIC AREAS OF
INDEPENDENT STUDY PROGRAMS

Program objectives - What are the stated and understood pro-
objectives?

Staff leadership - What are the organizational and actual sources
of leadership in the independent study programs?

General organization for instruction - What are the allotments of
time during the school day, students' and teachers' schedules,
and required time commitments?

Independent study program organization - Which students take part
in the program and to what extent? What are the responsibilities
of students and staff members?

Origin of study activities - Where do study activities originate -
from students, teachers, or the program?

Motivation techniques - What motivation techniques are used to
stimulate student interest in independent study?

Preparation of students - What techniques are used to prepare and
assist students in making effective use of independent study
time?

Supervision of students - To what extent are students supervised
during independent study time and how is this done?

---

[1]A. C. Hearn, J. Francis Rummel, Paul Kambly, and Roy
Paul Nelson.

TABLE 3-continued

Physical facilities - What physical facilities are used in the program and at what times and under what circumstances are they available to students ?

Material and human resources - What material and human resources are used and how are they made available to the student ?

Evaluation - What means are used to evaluate the progress of individual stude .ts and the program in general ?

Staff in-service Activities - What kinds of in-service work are done with certified and non-certified personnel ?

Attitudes toward program - What are the likes, dislikes and general evaluation by students, teachers, and administrators in the program ?

Designing the Instruments. The specific information required in each characteristic area was then determined and decisions made as to which school personnel could best supply that information. After the questions were written they were reviewed by other graduate students, staff members of schools with independent-study programs, and thesis committee members. Revisions were made and the instruments were then administered to students and staff members at Willamette High School, Eugene, Oregon, prior to the final revision.

All instruments were designed to be administered and/or completed by the researcher. The student, teacher, and administrator

forms were completed by the respondents under the direction of the
researcher. Some adjustments due to the terminology and practices
unique to a particular school were made at the time of interview.
The administrative director, librarian, and AV director forms
were completed by the researcher during interviews with these
participants. The Physical Facilities Data Sheet was used as a means
of getting and recording complete data relative to the physical facilities
of each school.

Collection of the Data

All data were collected during a three-day visitation in each
of the nine schools. Although the prepared instruments were always
used, emphasis was placed on the researcher getting as complete
an understanding of the characteristics of the independent study
program in each particular school as possible. This entailed
making some adjustments in the data-collecting instruments and
identifying and interviewing other key personnel as the need became
apparent.

Preliminary information necessary for both the school and
the researcher to establish the data collection procedure was

exchanged by letter.[1]   The time schedule for the visitations was

arranged by telephone.   All visits were made between March 21,

1966, and May 3, 1966.

The first activity of the researcher in each school was the

interview with the administrative director, during which time

arrangements were also made for the rest of the data collection.

Next the student samples were selected by the researcher

from lists of test scores or from student cumulative folders.   Test

mean scores and cut-off scores had been determined prior to the

visitation.   Meeting times were then determined and the students

were notified.

The original plan called for the researcher to meet with the

student sample from each grade level as a separate group.   But

because it was easier for the schools, two grade levels were

scheduled at the same time.   This change presented no problem to

collecting the data.   These student meetings were conducted either

during the second or third days of the researcher's visit.

The formal collection of data from teachers was made in an

after-school faculty meeting held on any of the three days.   To insure

a sampling that was adequately representative of all subject areas

---

[1]See Appendices D and L.

and grade levels, the researcher often had to seek out teachers who had missed the meeting.

Organization of the Study

Chapter II reviews practices recommended in the literature for operating effective secondary school independent study programs. Chapter III presents descriptive case studies of the nine I.S. programs in which data were collected. Chapter IV makes comparisons among practices recommended in the literature, those found in successful programs and those found in less successful programs. Chapter V presents the summary, conclusions, and recommendations.

Procedures for Analysis of the Data

Data from both student and teacher questionnaires were coded and recorded on data processing cards for statistical computation. Tabulations were made for each school individually and for all schools collectively. Two scales are used for reporting the statistical data:

For questions to which the response might be one of these four choices--"Greatly," "Moderately," "Little," "Not at all"--a numerical value was assigned each response, as follows:

Greatly:	1.00
Moderately:	2.00
Little:	3.00
Not at all:	4.00

This made it possible to get an average for each question either by school or for all schools. For example, if the average for all students on a given question was 2.31 then the average response fell between Moderately (2.00) and Little (3.00), but closer to Moderately.

Percentages are used to report results on questions which did not have the "Greatly" to "Not at all" response choices.

CHAPTER II

RELATED RESEARCH

Although many writers have written about the importance of
helping the young learner to become as autonomous as possible,
none have dealt with the topic of independent study as comprehensively
as Trump. As a result, much of the information presented on the
following pages has been drawn from Trump's writings. Other
authors have also been cited but credit must be given to Trump for
much of the base line information available in present literature.

Each of the 13 characteristic areas outlined in Chapter I has
been treated individually in this chapter.

Program Objectives

Although they are stated in many different ways, writers
most commonly identify the objectives of independent study as
(1) to provide a structure which permits maximum program
individualization for each student;[1] (2) to assist students in

---

[1] J. Lloyd Trump and Dorsey Baynham, Guide to Better Schools,
Chicago: Rand McNally and Co., 1961, pp. 26-29; Herbert A. Thelan,
Education and the Human Quest, New York: Harper and Brothers,
1960, pp. 89-90; Dwight W. Allen, "Individualized Instruction,"
CTA Journal, 61, October, 1965, pp. 27-50.

developing an inquiring mind;[1] (3) to encourage more creative work by
students;[2] (4) to teach, and to provide reinforcement through use of
the learning skills needed by the individual;[3] (5) to encourage
autonomous learning;[4] (6) to develop self-discipline and decision-
making skills;[5] and (7) to increase student motivation for learning
by increasing student involvement in decisions concerning his
education.[6]

The first of these objectives is explained by Allen in an article
in the CTA Journal:

> Individualization is a type of instruction in which the student
> engages in activities uniquely appropriate to his learning. This
> type of instruction promotes independence, provides opportunities
> for study beyond the regular curriculum, and permits maximum
> use of instructional resources.[7]

---

[1]Trump and Baynham, op. cit., pp. 5-6; Thelan, op. cit., pp.
105-109.

[2]Trump and Baynham, op. cit., p. 26.

[3]Ibid., pp. 5-6.

[4]Ibid., p. 26; Thelan, op. cit., pp. 89-90; Jacques Barzun,
Teacher in America, Boston: Little, Brown and Co., 1945, p. 21.

[5]Trump and Baynham, op. cit., p. 5; Thelan, op. cit., p. 89;
Allen, op. cit., p. 27.

[6]Trump and Baynham, op. cit., p. 6; Thelan, op. cit., pp. 89-
90; J. R. Suchman, "Inquiry Training: Building Skills for Autonomous
Inquiry," Merrill Palmer Quarterly, 7, July, 1961, p. 151.

[7]Allen, op. cit., p. 27.

Story, while reviewing the merits of the "Winnetka Plan,"

indicates that the efforts to individualize programs is not new.

The extraordinary merits of the "Winnetka Plan" and other
similar innovations have long been recognized, but the means to
make them work with unqualified success have seemed almost
inaccessible. What these plans developed in common, however,
is precisely the ingredient for which our modern schools are
frantically groping. They began, boldly and unabashedly, with
the acceptance of individual rates of learning and tried, in a
revolutionary way, to actually do something about it for every
student. [1]

Trump contends that today's instruction may actually be

retarding the development of inquiring minds. He says:

The pupil works his way through a school assignment, shuts
the book, and moves on in the ordered regularity of his schedule.
Any lingeri.g wonder, any curiosity, is buried under the
necessity to turn to other work . . . .

We must develop the spirit of inquiry in young people. As
they go through school, they should learn to react critically to
what they read and hear and to approach problems with the
curiosity, the will, and the techniques to solve them. [2]

As for encouraging creativity he says:

. . . each of us needs opportunities to engage in learning
things our own ways, developing competencies in line with our

---

[1] M. L. Story, "Let's Give Winnetka Another Chance, "
Education Forum, 28, November 1962, p. 100.

[2] Trump and Baynham, op. cit., pp. 5-6.

own special interests, and, to the extent of our abilities, to become creative in what we do.[1]

Frank, in the 1963 ASCD yearbook, directs attention to the importance of the student actually learning how to learn.

> When we shift the emphasis from learning of facts, memorizing of specific knowledge, and training in skills to the study of learning as a dynamic process, we begin to realize that the basic task facing the child is learning to learn, that is, learning so that he can, without further teaching, continue to learn to cope with new tasks and problems.[2]

Closely related to the student's need to discover how to learn is his need to become as autonomous as possible in pursuing learning. Barzun sums up the point when he says:

> The whole aim of good teaching is to turn the young learner, by nature a little copy cat, into an independent self-propelling creature, who cannot merely learn but study -- that is, work as his own boss to the limit of his powers. This is to turn pupils into students, and it can be done on any rung of the ladder of learning.[3]

Emphasis has also been placed on the need for the student to take part in important decision-making situations as they pertain to

---

[1]J. Lloyd Trump, "Independent Study," A mimeographed publication from the NASSP, 1963, p. 1.

[2]Lawrence H. Frank, "Four Ways to Look at Potentialities" (Chapter I), New Insights and the Curriculum, Washington D. C.: National Education Association, 1963, p. 33.

[3]Barzun, op. cit., p. 21.

his own education. Trump states that students are "directed and supported virtually every step of the way through high schools" and, as a result, "find it difficult to travel on their own when they reach college or go to work on a job."[1] Olivero adds that for adolescents to develop decision-making skill, they must be involved in decisions more significant than selecting the right pair of sox.[2]

Frequent references are made in the literature to the increased motivation that is apparent when students are involved in activities or investigations because of their own interest. Thelan makes the point as he discusses the potential outcomes of his system of personal inquiry:

> Probably the most distinctive feature of the whole thing will be the deep involvement of the student - his absorption, his concern, his releasing of a great deal of effort and energy into the activity; and there will be a commensurate emergence of insight from the well; spring of this meaningful experience.[3]

Staff Leadership

Little information about staff leadership patterns in independent study programs is available in the literature. Trump does refer

---

[1] Trump and Baynham, op. cit., p. 5.

[2] James Olivero, in a personal interview at Poway, California, April, 1966.

[3] Thelan, op. cit., p. 90.

frequently to the need for teachers to make "professional decisions"

about the programs and activities of individual students. He also

refers to the increased professional status which will accrue to teachers

as their professional role is more clearly identified and as they be-

come responsible for the direction of other members of the instructional

staff. Probably of more significance is his recognition of the need for

teachers to play a key role in the design and implementation of

improved practices in education.[1]

Congreve, principal of the University of Chicago Laboratory

School, stresses the importance of establishing a climate in which

teachers feel free to assume leadership in designing the instructional

situation. He attributes much of the success of his school's indepen-

dent study program to the leadership of competent teachers.[2]

Trump also addresses himself to the new role of the principal,

which he sees as one of much greater involvement in the designing

and evaluation of the instructional program. He emphasizes the

---

[1] Trump and Baynham, op. cit.

[2] Willard J. Congreve, "Teachers Develop Plan for Independent
Study," Chicago School Journal, 46, April 1965, pp. 289-296.

principal's role in helping to design programs providing suitable in-service training for the staff, and in evaluating the results of programs to aid in improving the total program. [1]

General Organization for Instruction

Independent study programs are operating both in schools with modular and with traditional schedules. However, of those schools which the literature identified as having 50 per cent or more of their students on independent study for at least 20 per cent of the student's time, none operated on a traditional schedule.

Once again, the base line must be established primarily from Trump's writings, which strongly advocate a modular schedule. He recommends heavy use of team teaching and the adjustment of the size of student groups to the particular instructional need. He recommends that a 20-minute module is generally appropriate. He would have students typically spend about 40 per cent of their time in large groups, 20 per cent in small groups, and 40 per cent in independent study. He emphasizes the need to individualize each student's schedule according to the student's educational needs and capacities.

---

[1] Trump and Baynham, op. cit., pp. 65-70.

The total instructional organization would be characterized by much greater flexibility with regard to time than that which is possible with the traditional schedule. Length and size of classes would vary according to the need of each class and according to the need of each student.

Curriculum organization would be strongly influenced by three questions: "(1) What can students learn largely by themselves? (2) What can students learn from explanations by others? and (3) What requires personal interaction among students and teachers?"[1]

Independent Study Program
Organization

When the literature is reviewed to determine which students should be provided with substantial amounts of independent study, some differences appear.

Allardice and Duncan, Brannon, Glathorn and Monroe, and School Management magazine each report on successful programs for the academically able.[2] On the other hand, Congreve found that

---

[1] Ibid., p. 104.

[2] David Allardice and William F. Duncan, "Intelligent Self-Direction in High School: An Analysis of the Effects Upon Students and Staff of a Pilot Study at Northport High School," Project, Columbia University, 1966; M. J. Brannon, "Individual Mathematics

interest and ability to accept responsibility for learning does not seem

to be related to intelligence.[1]

Trump, in referring to students with "limited skills, interests,

and creative impulses," supports the principle of independent study

of some kind for all students.

> . . . Students in this category need definite assignments with
> close supervision to see that they follow the directions that are
> given to them. Such students are assigned to work in conventional
> study halls, conventional libraries, conventional laboratories, or
> other usual school facilities. The number of students whose
> independent study is thus restricted should be held as low as
> possible; in fact, the goal of the school should be to reduce their
> number to zero. All students need to learn how to learn.

> Most students, including those with relatively limited
> abilities, need to participate in a different type of independent
> study for as much time as is deemed profitable. A professional
> decision involving teachers, counselors, and administrators
> should determine how much and what kind of independent study will
> be productive for a given pupil.[2]

It should be noted that Trump sees independent study as an

important part of each student's program, but that the nature and

extent of this independent study is determined on an individual basis.

Study Plan, "Mathematics Teacher, 55, January, 1962, pp. 52-56;
Allen A. Glathorn and Carl Malone, A Program for the Gifted Student
in the Abington Senior High School, Abington, Pa: School District of
Abington Township, March, 1961; and School Management, "What
You Can Do About Overcrowded Classrooms," 8, August, 1964, pp.
54-58.

[1]Willard J. Congreve, "Learning Center . . . Catalyst for
Change?" Educational Leadership, 21, January, 1964, p. 247.

[2]Trump, op. cit., pp. 2-3.

Origin of Study Activities

Emphasis on the student playing a significant role in planning

his independent study activities is either stated or strongly implied

by Trump, Thelan, Suchman, Congreve, Marquette, Herman, and

Berger.[1]

The origin of activities engaged in during independent study

time may be divided into three areas.

(1) Specific assignments are made by a teacher, either to an

individual student or a group of students. A certain reading assign-

ment may be given prior to a large group presentation. A teacher

or group of teachers may identify a small group of students who need

help in developing a specific skill or concept understanding and give

these students certain readings or exercises to complete. These

same kinds of assignments may be given to individuals.

(2) Although these activities are still teacher initiated, students

are given much more latitude to pursue aspects of the subject of

---

[1]Ibid.,; Thelan, op. cit., pp. 89-90; Suchman, op. cit.,
p. 151; Congreve, "Learning Center . . . Catalyst for Change?"
op. cit., pp. 211-247; D. Marquette, "Independent Study - Effective
Programs or Waste of Time?" School Management,´ 8, September,
1964, p. 124; Jerry J. Herman, "Individualize Your Instruction
by Contract Teaching," The Clearing House, 38, May, 1963, pp.
551-554; Sylvia Berger, "A Language Laboratory Experiment, "
High Points, 49, October, 1964, pp. 49-55.

particular interest to them. For example, a teacher may request that all students in a particular class select some aspect of the subject area of interest to them, develop a project, and select a means of sharing their information with the rest of the class.

(3) The third source for these activities is the student, himself. To develop this source, the school must provide time, facilities, and resources (both material and human) so that each individual has the opportunity to investigate his own interests. In many cases these activities will be extensions of regular class work, but they may be unrelated.

Attention is given by most writers in the field to the need for identifying the ability of each student to handle different levels of independent study. Even Trump suggests that certain students with limited interests, skills, and creative impulses need a more structured learning situation than other students.

> . . . Students in this category need definite assignments with close supervision to see that they follow the diredtions that are given to them. Such students are assigned to work in conventional study halls, conventional libraries, conventional laboratories, or other usual school facilities. The number of students whose independent study is thus restricted should be held as low as possible; in fact, the goal of the school should be to reduce their number to zero. All students need to learn how to learn.[1]

---

[1] Trump, op. cit., p. 2.

Motivation Techniques

Central to the development of motivation for independent study is the creation of a suitable atmosphere. Trump, Thelan, Suchman and Bowman[1] each indicate that once the proper climate is developed and the student becomes an active part of the situation, motivation tends to become cyclical in nature. Bowman says:

> This goal is based on the theoretical assumption that the personal experience of success by the pupil in using his own resources to solve new problems is exciting, satisying, and habit-forming. The thrill of discovery whets the appetite for more problems and solutions.[2]

Suchman, in reviewing the works of Bruner, Piaget, Beberman, Hendrix, Karplus, Wertheimer, and Suchman, says, " . . . exploration, manipulation, and mastery are intrinsically motivating . . . . "[3]

Trump, in discussing this "suitable atmosphere" directs attention to how the student determines where he must focus his attention.

_____

[1]Trump and Baynham, op. cit., p. 26; Thelan, op. cit., pp. 89-90; Suchman, op. cit., p. 151; Paul Hoover Bowman, "Developing Potentiality/Creed or Pipe Dream?"(Chapter 2), New Insights and the Curriculum, Washington, D.C.: National Education Association, 1963, p. 44.

[2]Ibid.

[3]Suchman, op. cit., p. 151.

. . . immature young people are highly conscious of the values placed by a school on different types of activities. The school that places high value on the quality and quantity of independent study as it appraises and reports individual pupil progress will reap the benefits of superior work by students. Conversely, if the school emphasizes highly the marks on factual examinations, independent study will appear to students as a luxury that may be bypassed. [1]

He also identifies "the reading, listening, and viewing rooms, the cubicles, and the laboratories" as the setting for independent study. [2]

Most writers assign an important responsibility to staff members in developing student interest in independent study.

Trump says that this will be done, in part, in the classrooms by having material presented in an open-ended manner. "That means in such a way that students will be encouraged to question the information, rearrange the data, seek further answers, and try to surpass previous accomplishments." [3]

Marquette indicates that an important characteristic of successful programs is the maintenance of effective student-teacher dialogue concerning the student's independent study activities. [4]

---

[1] Trump, op. cit., p. 6.

[2] Trump and Baynham, op. cit., p. 29.

[3] Ibid., p. 27.

[4] Marquette, op. cit., p. 124.

Another dimension to the teacher's role is added by Thelan who believes that it is valuable for the student to have images other than his own against which to compare his experiences and project his thoughts.[1] These other images might also be provided by other students.

Another stimulus to appropriate independent study activity may result from student recognition that independent study opportunities may be revoked. This paper has pointed out that Trump suggests provision be made for supervising those students who cannot work effectively in an unstructured situation.[2]

Preparation of Students

Considerable agreement exists that the development of independent study skills cannot be left to chance, but that students must "learn" the skills necessary to profit from independent study.

Thelan says that for the result of personal inquiry to be effective, it must entail more than the satisfaction of curiosity; it must be

---

[1] Thelan, op. cit., p. 107.

[2] Trump, op. cit., p. 2.

educative. Skills learned in the solution of immediate problems are useful to the extent that they can be applied to later situations.[1]

More specific direction is given by Trump when he says:

> Specific instruction is essential in such matters as how and where to study, the use of card catalogs, listening, viewing, and reading habits, the use of audio-visual devices, outlining and note taking, techniques of reporting and presenting materials, and in evaluating personal efforts.[2]

In addition he identifies "teachers, librarians, instruction assistants, consultants outside the school, and the school principal and his assistants"[3] as the personnel involved in helping students learn independent study skills.

Throughout his writings Trump repeats the basic theme that students have varying abilities to think and solve problems on their own, but that it is the school's responsibility to help each student increase these skills.[4]

---

[1] Thelan, op. cit., p. 105.

[2] Trump, op. cit., p. 3.

[3] Ibid., p. 3.

[4] Trump and Baynham, op. cit., p. 29.

Supervision of Students

Most of those who have written about independent study do not
address themselves specifically to the question of supervision of
students, but instead deal with the general notion that students can be
given more freedom than exists in the traditional school program.

Some descriptions of programs now in operation, however, do
discuss the need for direct supervision of some portions of the student
body, usually for disciplinary reasons.[1]

Once again we turn to Trump for more specific direction.
Although he emphasizes the school's responsibility for helping students
to acquire the desired independent study skills, he also indicates that
supervision is necessary.

> Students are scheduled into the workrooms and appropriate
> records maintained so the school knows and parents know what
> individual students are doing. Students are not permitted to
> leave the workrooms except with the written permission of the
> instruction assistant in charge. A good reason will support the
> request for an excuse and permission granted only to those students
> who do not abuse the privilege. A student may need to work in

---

[1]David W. Beggs and James L. Olivero, "A Place Out of
Space . . . The Independent Study Carrel . . . and a Variety of
Studies in Lakeview High School, Decatur, Illinois, " NASSP
Bulletin, 46, January, 1962, p. 197; Carl H. Peterson, Effective
Team Teaching: The Easton Area High School Program, West Nyack,
New York: Parker Publishing Company, Inc., 1966, pp. 101-2.

another workroom, the library, or at some center outside the
school. The atmosphere of the workroom needs to be relaxed yet
businesslike. Conferences with other students are permitted with
the understanding that this is a privilege to be removed if abused.
In other words, the atmosphere of the school workroom should be
comparable with those in effective offices, shops, laboratories,
and public libraries. As indicated earlier, students who cannot
work under such conditions will be removed to strictly supervised
and disciplined conventional study rooms.[1]

Physical Facilities

Facilities for independent study have been treated extensively

in the literature. Trump presents plans for an entire school in

which he provides for a library, resource centers, listening rooms,

viewing rooms, conference rooms, teaching machine rooms,

individual study carrels, laboratory spaces, and a master transmitting

room for audio visual materials.[2]

Many writers comment on the best means of providing student

access to both printed and non-printed materials. They agree that

these materials must include not only the usual kinds of books and

periodicals found in good libraries but should also include tapes,

records, films, filmstrips, video-tapes, and various combinations

of all these materials.

---

[1]Trump, op. cit., p. 5.

[2]Trump and Baynham, op. cit., pp. 2-9.

Although all the available literature agrees that all of these

materials must be provided in generous quantities and must be easily

accessible to students, writers disagree as to the kinds of physical

facilities which will lend themselves best to the accomplishment of

these objectives.

Trump, and others, advocate that a central library should house

less frequently used materials, while more commonly used materials

should be housed in separate resource centers, organized basically

by curricular departments.[1] The number of centers in a school

should be appropriate to the size of the school.

But Ellsworth and Wagener, in The School Library, make a

strong plea for an expanded central library, which would include all

of the materials and services provided in separate resource centers.[2]

In a school of 1,200 Trump would provide independent study

facilities as follows:

A 60-seat library reading room

A 40-seat viewing room

A 40-seat listening room

---

[1] Trump, op. cit., p. 4.

[2] Ralph E. Ellsworth and Hobart D. Wagener, The School
Library, New York: Educational Facilities Laboratory, 1963,
pp. 37-43.

10 conference rooms (capacity of 5 students each)

5 soundproof booths

300 study carrels

Laboratory - Resource Centers

     Health and Physical Education - 3

     Science - 3

     Mathematics - 2

     Language Arts - 1

     Social Studies - 1

     Foreign Language - 1

     Practical Arts - 1

     Fine Arts - 1[1]

Emphasis is given by most writers to the importance of having a variety of laboratory facilities available to students. Trump, as indicated above, would at least partially combine these with the resource centers. He would open to independent study such labs as the industrial arts, home economics and science labs--which are also used for regularly scheduled classes.

A relatively small independent study facility which has received much attention is the individual study carrel.

---

[1] Trump and Baynham, op. cit., pp. 39-40.

Shaw and De Bernardis, in separate articles, trace the development of the carrel from a simple partition designed to give some visual privacy to a highly complex electronics center in which students may receive TV, films, tapes, and computer or teaching-machine instruction.[1]

It is one of the simpler carrels which Trump would provide for every four students. He would also provide some of greater sophistication for special programs, as would Beggs and Olivero.[2]

Material and Human Resources

With regard to material resources and human resources necessary for an independent study program, the literature identifies two considerations. The first of these has to do with what resources are needed, and the second with how these resources should be made available.

---

[1] Archibald B. Shaw, "Space for Individual Learning," Overview, 4, March, 1963, pp. 30-40; Amo De Bernardis, Planning Schools for New Media, Portland, Oregon: Portland State College, 1961, p. 14.

[2] Beggs and Olivero, op. cit., pp. 194-6.

Trump, Barchek, and Davis and Tompkins each place emphasis on the importance of having a large quantity of many types of resources to care for the varied interests and abilities of students.[1]

Among the materials they suggest are books, pamphlets, magazines, 16mm films, 8mm film loops, filmstrips, tapes, records, video-tapes, programmed materials, and laboratory materials. Of necessity, the school's resources would also include all hardware necessary to permit ready student use of these materials. It is important to member that, in any secondary school, student interests and abilities encompass a broad range; the entire spectrum of this range needs to be reflected in the available materials.

As to the ready accessibility by students of both material resources and human resources, Trump and Baynham throughout their book develop a plan which not only provides the necessary resources within the school but which houses them in places where all students can get at them easily. This plan includes giving to students sufficient reedom of movement so that they can move from study area to study area as their resource needs change.

---

[1] Trump, op. cit., p. 4; Jim Barchek, "Independent Study: Responsibility for Everyone," Salem, Oregon: State Department of Education, Secondary Curriculum Reports, 13, May, 1966, p. 1; Harold S. Davis and Ellsworth Tompkins, How to Organize an Effective Team Teaching Program, Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1966, p. 54.

Writers in the field would also make available a wide range of human resources, foremost among which would be teachers, specially qualified aides, specialists from the community, and other students.

Barchek, in referring to the independent study program at Marshall High School, draws attention to the teacher's role:

> Without help easily and continuously available, it seems safe to guess that these projects would never have been completed. Teachers must be willing to expend time in conferences and in organizing in order to achieve a successful program.[1]

Trump places no less emphasis on the role of the teacher, but he would also employ specially selected instruction assistants:

> Supervision of the workrooms should be done by carefully selected, qualified instruction assistants. These assistants are persons who possess at least a college minor in the subject field represented by the workrooms. Three types of persons often are available: housewives interested in part-time work, advanced college students, and retired teachers. These instruction assistants know the subject sufficiently well to be able to answer many questions or to refer a student to his professional teacher when a specialized type of assistance is needed.[2]

---

[1] Barchek, op. cit., p. 2.

[2] Trump, op. cit., p. 4.

Attention is also given to the desirability of students making use

of the knowledge of specialists in the community as well as the talents

of their fellow students.

Attitudes Toward Program

What the literature has to say about this characteristic area is

not important to this study. This area was included in the table of

anticipated characteristic areas because of its probable value in

helping the researcher determine the relative success of the pro-

grams studied. Revelation of these attitudes also helped the re-

searcher to discover program aspects not otherwise included in

any anticipated characteristic area, yet of sufficient importance

to merit comment by participants in the study.

Evaluation

None of the literature tells how to evaluate a school's independent

study program.

However, Trump does give some guidelines for evaluating the

work of individual students.

The independent study program recognizes the divergent
interests and talents of students not only in relating the program
to large and small group work and to educational facilities, but
also in evaluating the projects of individual students. A basic

principle in evaluation is to expect great variation in students'
performance in independent study. Teachers constantly need to
resist the temptation to compare and contrast independent study
results among students. The fundamental goal is individual
development in each student according to his own pace, interests,
and talents. The question is, how well has a students done in
terms of his own interest potential and development at a given
stage, not how well has he done in relation to the other students
in his group.

Scales based on carefully developed criteria may help to
evaluate independent study efforts. The criteria will include
such matters as thoroughness, accuracy, originality, relation-
ships to existing knowledge, and effectiveness in reporting.
The ingenuity of the professional staff will be challenged in
evaluating with Likert-type scales such diverse projects as a
model or a new discovery, an exposition, the solution of a
problem, a proposed reclassification of data or species, a poem,
a musical composition, a new tool, a product, or a survey. A
comparison of evaluation scales for several independent study
efforts by a given student provides a record of progress during
whatever length of period the school decides to use for purposes
of reporting to parents. [1]

Trump continues, "The school that places high value on the
quality and quantity of independent study as it appraises and reports
individual pupil progress will reap the benefits of superior work by
students."[2] He stresses the point that young people are very conscious
of the values placed by a school on different types of activities. If
reports to parents, colleges, and employers are based primarily on

---

[1] Ibid., pp. 5-6.

[2] Ibid., p. 6.

scores from examinations then it is these examinations that will receive the primary attention of students.

Thelan indicates that there must be checkpoints at regular intervals to help the student assess how far he has come and what steps are needed next, but Thelan does not say how to conduct such evaluations.

Staff In-Service Activities

The literature contains many such statements as these: the teacher will need to learn to give open-ended assignments; the teacher will need to learn to stimulate student interest in independent study activities; or teachers will need to learn new skills. But despite the frequent recognition of the desirability of in-service work with the staff, no indication is given as to how this work might best be done.

Although the literature offers little research-based evidence to support its contentions as to which characteristics of independent study programs offer the greatest prospect for success, the theoretical patterns presented in this chapter will nevertheless serve as a useful basis for comparison with those patterns actually present in the programs studied. These programs will be described in Chapter III, and in Chapter IV they will be compared with the theoretical programs of the literature.

CHAPTER III

A CASE STUDY OF THE PROGRAMS IN
EACH OF THE NINE SCHOOLS

This chapter describes the nine programs studied, reserving for Chapter IV comparison of them with the standards established by the literature.

Data from each school are presented in two sections: "The School" and "The Program." Because commitments have been made to protect the anonymity of the schools involved, the schools are not identified by name. Descriptive information about each school includes the general nature of employment in the community, the size of the school system, the educational and vocational activities of its graduates, and the quality rank assigned to each of its independent study program characteristics. All other information which pertains to understanding the program is included in "The Program" sections.

Because of the wide differences among programs, data presented differ somewhat from school to school. Because the intent of this chapter is to describe the major attributes of each program, data have been presented with this in mind, sometimes at the expense of statistical consistency.

The description of each program is presented under thirteen sub-

headings:

Program Objectives
Staff Leadership
General Organization for Instruction
Independent Study Program Organization
Origin of Study Activities
Motivation Techniques
Preparation of Students
Supervision of Students
Physical Facilities
Material and Human Resources
Evaluation
Staff In-Service Activities
Other Information

School A

The School

School A, which has an enrollment of about 1,000 sophomores,

juniors, and seniors, is the only senior high school in a community

which provides most of the services for a wide geographic area.

Employment is best described as varied, with some emphasis on mill

work and recreation. Many professional people reside in this

community.

About 65 of every 100 graduates go on to some kind of advanced

education; the remainder divide among a wide variety of occupational

areas.

The independent study program, in operation for two years in this school, was originally placed in the successful category, although there was some disagreement about this rating among members of the panel of experts. After the program had been observed for three days, and after the data had been tabulated, the program was re-classified as "less successful." The original classification was first questioned by the researcher during the observation time, as a result of his observation that students spent less time engaged in productive activities than might be expected. On their questionnaires students indicated that they spent an average of 28 per cent of their time "goofing off." The average for successful programs was 17 per cent; for less successful programs, 29 per cent. It should also be noted that composite achievement test scores of the 1964-65 and 1965-66 junior classes fell 8 percentiles and 17 percentiles, respectively, between their freshman and junior years.

The Program

Program Objectives. Students in School A reported that teachers have spent only a limited amount of time (2.79)[1] talking to them about

---

[1]1.00 = Greatly; 2.00 = Moderately; 3.00 = Little; 4.00 = Not at all -- 2.79 falls between "Moderately" and "Little," lying closer to "Little."

the objectives of the independent study program. These students believe

that the ranking objectives of the program are learning to do things on

their own (1.31) and having time to do teacher-given assignments

(1.45).

It is interesting to note that although the principal indicated that

the objectives of the program were not in writing, 83 per cent of the

staff members said they were, and 64 per cent reported that they

had their own copy of these objectives.

Table 4 indicates that the teaching staff and principal agree

substantially about the amount of understanding of program objectives

possessed by the staff but disagree about which objectives have

received the greatest emphasis.

Staff Leadership. In the "Leadership" section of the data-

collection instrument, teachers were asked to indicate on a "Greatly"

to "Not at all" scale the extent to which leadership emanated from

various staff members. School A teachers gave relatively fewer

"Greatly" responses and relatively fewer "Moderately" responses

than were recorded for the study as a whole. For the entire study,

the mean number of responses to "Greatly" was 0.85; for School A

it was 0.63. To "Moderately," the entire study recorded a mean

number of 1.28 responses to School A's 0.95.

TABLE 4

COMPARISON OF PRINCIPAL AND STAFF RESPONSES
TO PROGRAM OBJECTIVES QUESTIONS

| | According to | |
	Teachers	Principal
To what extent have the objectives been discussed with the staff?	2.07	2.00
To what extent is the staff knowledgeable about them?	2.17	2.00
To what extent do they apply these in their work?	2.17	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	1.98	2.00
Develop inquiring mind	1.86	2.00
Develop self-discipline	1.72	1.00
Develop self-initiative	1.71	1.00
Develop resourcefulness	1.81	1.00
Develop self-evaluation skills	2.38	3.00
Develop research skills	1.81	1.00
Provide for individual differences	1.81	1.00
Free the teacher's time	2.52	1.00

Table 5 indicates that teachers find leadership emanating moderately from the principal but little from any other source.

TABLE 5

SOURCES OF PROGRAM LEADERSHIP

Source	Principal	Teachers	Administrators
Principal	1.00	1.98	2.33
Administrative director	2.00	3.26	3.33
Other administrators	4.00	3.26	4.00
Department chairmen	2.00	3.05	2.33
A specific teacher	4.00	3.35	4.00
A specific group of teachers	4.00	3.03	2.33

General Organization for Instruction. This school has twenty-three 18-minute modules each day, programed on a five-day cycle. Large-group and small-group instruction are used but large groups have been limited because of space and staff considerations. The amount of large-group, small-group, and independent study varies greatly within each grade level and among subject areas.

About 30 per cent of the instructional program is organized for team teaching. The typical teacher has no specific class or super-vision assignment during about 35 per cent of the regular school day.

Independent Study Program Organization. All students are provided with independent study time. Fifty per cent of the students

sampled indicated they had about 20 to 30 per cent of their school day

unscheduled.[1] Forty-three per cent reported 35 per cent or more of

their time unscheduled. Seven per cent indicated less than 20 per

cent unscheduled time. The tendency of the more able students to

enroll in more classes reduces the I.S. time available to them. How-

ever, although the less-able students tend to take fewer classes,

these classes are frequently scheduled for longer periods of time,

reducing the amount of I.S. time of these students to only slightly

more than that of the academically able students.

Independent study privileges are considered a regular part of

the school program and are not restricted because of conduct or

achievement records. No study halls or detentions are used. How-

ever, some classes, most commonly those which attract less-able

students, include structured I.S. time.[2] For example, classes in

agriculture and conservation, and certain English classes schedule

students into a supervised study situation for about one hour each week.

Students are released from the supervised situations as teachers

become satisfied that they will make effective use of the study time

---

[1] The term "unscheduled" is used here to denote time in which
the student is not programed into a regularly scheduled class

[2] Structured I.S. is unscheduled time, but the student is required
to report to a particular place to engage in specified areas of study.

without supervision. Several teachers indicated that they were not satisfied with this structure and would go entirely to unstructured I.S. time the following year. Teachers are given a wide range of freedom to decide how their classes, including the I.S. aspects, will be scheduled.

Two restrictions are placed on student movements during unscheduled time: They must get permission before leaving the campus, and they may not move from one study area to another except between modules. Both of these restrictions, however, seem to exist only on paper, not in practice. Administrators, teachers, and students all indicated that neither policy is enforced.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked in what settings the independent study assignments they gave to students were given. Table 6 indicates heavy use of the traditional-sized classroom and little use of the small group or one-to-one situations.

To determine how I.S. time was spent, students were asked how they spent this time and teachers were asked how they thought students spent it. These responses (Table 7) give some indication of the extent to which a student's I.S. time is teacher dominated.

TABLE 6

PERCENTAGE OF I.S. ACTIVITIES ORIGINATING
IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	24
Small group	12
Traditional size	50
One-to-one	9
Other	4

TABLE 7

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of time Spent According to	
	Students	Teachers
Doing specific teacher-given assignments	29	35
Doing general teacher-given assignments (Student makes a choice)	17	13
Studying what the student wants	14	12

Motivation Techniques. Students were asked to what extent

certain pressures influenced their choice of I.S. activities.

Table 8 indicates that grades and the student's own interest in the work seemed most significant; pressure from other students, being observed by staff members, and other kinds of teacher pressures were less important.

TABLE 8

PRESSURES AFFECTING I. S. ACTIVITIES

Pressure	Student Responses
Grades	1.88
Other teacher pressure	2.76
Own interest in work	1.94
Being observed	3.11
Other students	3.27
Parents	2.45

Teachers indicated that they made a moderate (1.88) effort to build into the classroom activities factors designed to stimulate student interest in I.S. activities. When asked to indicate specific techniques used to stimulate student interest 49 per cent of the staff listed one, 30 per cent listed two, 26 per cent listed three, and 9 per cent listed four. Teachers also reported that they used moderately both grades (2.30) and student self-interest (1.85) as means of stimulating students.

Students (3.18) and teachers (3.28) agreed that students are
required only to a limited extent to discuss I.S. activities individually
with their teachers.

Some I.S. projects are displayed in the school as a means of
stimulating students. According to the principal, the student council
also devotes some attention to the program. There are four council
committees that concern themselves with the study centers, and the
student council activities in the area of general conduct bear on
independent study.

Preparation of Students. In the opinion of the high school staff,
feeder schools do very little to prepare students to participate
effectively in the I.S. program. School A's principal reports that no
preparation program is provided in the junior high school. School
A's teachers find little (3.36) evidence of preparation.

Student leaders from the senior high school visit the junior high
school as a part of the entering-student orientation program, and some
attention is given to I.S. at a one-day session at the high school for
new sophomores.

All students are scheduled into two modules per week of group
guidance. These classes are taught by the counselors and some
attention is given here to I.S. problems. Teachers devote from a

moderate amount to only a little (2.50) class time to discussion of
independent study.

No special program is provided for students who are not operating
effectively in the regular program, but they are given attention as a
regular part of the guidance services. As is the case in most of the
schools studied, counselors use grades, test scores, and teacher
referrals as means of identifying those students who need help. They
then counsel individually with them in an effort to help the students
improve their performance.

Students report that little (2.79) class time has been devoted to
discussing the I.S. program; but that the teachers, collectively,
provide moderate (1.78) help. Students report a moderate (2.24)
understanding before they entered the school. They received from
moderate to little (2.57) help from other students.

Supervision of Students. Students do not have to be in any
particular place during unscheduled time. There is a relaxation area
open to them in the cafeteria at all times, and the climate is such that
the school grounds are usable most of the time.

Supervision in study areas other than the library is provided by
aides, but in the library by the librarian. The principal stated that
although the aides are always present in the study areas they spend

little time actually supervising students. Their presence alone seems adequate to maintain discipline.

It is interesting to note the discrepancy that appears between the principal's view and that of the students and teachers as to who is doing the supervising. This may be caused by a difference in the wording of the questions asked the three groups. The principal was asked who supervised students in study areas (underline added). Students were asked who supervised them during their I.S. time, and teachers were asked what percentage of their non-instructional time was used to supervise students engaged in independent study.

Teachers estimated that 21 per cent of their time was used in supervision. A comparison of the responses of the principal with those of the students appears in Table 9.

TABLE 9

SOURCE OF STUDENT SUPERVISION
DURING INDEPENDENT STUDY

| Source | According to | |
	Principal	Students
Teachers	4.00	2.76
Other adults	1.00	3.09
Other students	4.00	3.23

Observation of the program provided another possible explanation of this response discrepancy between principal and students.

During the three days of observation, very few students were seen in the study centers supervised by aides. The library, which is supervised by the librarian (a teacher), was heavily used; hence many more students were being supervised by a teacher than by aides. Too, much of the teacher supervision time is provided by instructors of laboratory courses who monitor open labs for I.S. students.

Physical Facilities. School A was originally designed for a traditional program but has recently added a wing which contains facilities for large groups, small groups, and independent study.

The most frequently utilized center for independent study is the library, which seats 110 students in groups at tables. The library, which receives heavy use, is open to students at any time during the school day, and before and after school. Both the collections and the facilities are traditional.[1]

---

[1] Traditional collections consist almost entirely of books with a limited choice of magazines and pamphlets. Traditional facilities are characterized by shelves around the perimeter of the room with all seating at tables in the center of the room and little provision, if any, for audio visual resources.

Four study centers are available to students but appear to get very light use. One of these is located immediately adjacent to the library and is accessible from it. It consists of 48 simple study carrels, seven conference rooms which will each seat about five students, and 10 listening booths. The listening booths are connected to a tape console which will handle 11 tapes at one time. All AV equipment is housed in this area, administered by the aide in charge, and available for student use.

A social studies center, which seats 32 at tables, is open to students at any time but appears to receive very little use. This may be because of the limited number of resources available in the room -- only a few textbooks, periodicals, and paperbacks.

Two other small study centers are available: A guidance center seats about 20 and contains both guidance and English materials. A foreign language study center, which seats 10, contains but a few periodicals.

Adequate laboratory facilities are available in most laboratory instruction areas and, with a few exceptions, are available to I.S. students any time there is space available, which seems to be most of the time. The foreign language and agriculture labs are open less than the others because of a lack of available supervision. The metal,

art, and chemistry labs appear to get very heavy use, but by a limited

number of students.

The cafeteria area, which is open to students at any time during

the regular school day, gets very heavy use. Seating about 275, it is

a dreary, austere, noisy room equipped with tables and benches. The

use the students make of this facility was identified as a problem by

both teachers and administrators.

Offices are provided for 34 teachers, leaving 12 without such

facilities. These offices are scattered throughout the building and do

not appear to be arranged to encourage student visitation. In

addition, teachers have access to a small production room adjacent

to the main school office.

Material and Human Resources. Printed materials in the

library are adequate,[1] probably approaching excellent for the

academically able student. However, the study centers are only

minimally equipped, primarily with texts and formal reference books.

---

[1] Subjective evaluations about the quantity and quality of library
and resource center materials were made by the researcher. Data
upon which these evaluations are based were collected during inter-
views with librarians, AV directors, and those staff members
responsible for resource centers. Extensive observations were also
made by the researcher. The guidelines for these interviews and
observations were strongly influenced by Evaluative Criteria
(Washington D. C.: Cooperative Study of Secondary School Standards,
1960), and consultation with several local librarians.

This is probably a factor in the light student use of them. AV

materials are also limited. There are about 85 filmstrips, 75 records,

a few slides and a small collection of tapes. Probably the greatest

variety is available on tapes. The tape collection includes both

commercially prepared and teacher prepared items. Teacher

prepared aids include lectures, drills, and study guides.

Those materials which the school has seem to be readily

available to students. The study center adjoining the library has a

10-listening-station tape console which appears to function well.

Students may get AV materials and equipment by asking the aide-in-

charge, and listening and viewing facilities are convenient. Printed

materials may be checked out from either the library or the study

centers. With the exception of one record player - film strip viewer

combination which is located in the guidance study center, all AV

equipment is located in the study center adjoining the library.

Materials for the study centers are selected primarily by teachers

and department chairmen (see Table 10).

The library and the study centers operate independently of one

another with the library controlled by the librarian and the study

centers by the department chairmen.

TABLE 10

PERSONNEL WHO SELECT MATERIALS FOR STUDY
AREAS OTHER THAN THE LIBRARY

Personnel	According to	
	Teachers	Principal
Building administration	2.38	3.00
Department chairmen	1.81	2.00
Teachers	1.47	1.00
Students	2.93	3.00
Librarian	2.74	3.00
Non-certified personnel	3.52	4.00
District personnel	3.28	4.00

It is interesting to note that the effort to encourage student use of out of school resource people is at least as great as that to encourage the use of teachers other than those from whom the student is taking classes. In both cases the effort and level of use appears to be little (Table 11).

Students reported that their own teachers were moderately (1.99) available to them, but that they voluntarily spent little (2.88) time with these teachers. They also indicated that teachers made little (3.18) effort to require them to discuss I.S. work individually.

TABLE 11

STUDENT USE OF RESOURCE PEOPLE

Question	According to		
	Students	Teachers	Principal
To what extent are students encouraged to use other teachers?	3.13	2.64	2.00
To what extent do they use other teachers?	3.09	2.81	2.00
To what extent are students encouraged to use outside resource people?	2.83	2.51	2.00
To what extent do they use outside resources?	2.92	2.79	2.00

Evaluation. No formal procedure is used to evaluate the effectiveness of the I.S. program. The only objective data is from standardized achievement tests; these have been averaged to determine differences in scores between the traditional program and the current program. The principal indicates that the staff subjectively evaluates the program and that college student returnees report that they are ahead of graduates from traditional programs.

According to the principal a moderate effort is made to evaluate teacher effectiveness in the program, but this is done primarily by the teachers themselves. On the other hand, teachers report that very little effort (3.40) is made to evaluate their effectiveness.

Both teachers and administrators believe that little effort is made to aid students in evaluating their own progress in terms of both short-range and long-range objectives. To the extent that this is done, it is done by counselors. They use grades, test scores, and teacher referrals as a means of identifying certain students who need help.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 12. It is interesting to note that the teachers consistently indicate that little attention has been given to the I.S. program.

TABLE 12

IN-SERVICE ACTIVITIES USED TO IMPROVE
INDEPENDENT STUDY PROGRAM

Activity	According to	
	Teachers	Principal
Regular faculty meetings	2.81	2.00
Special meetings during the school year	2.65	2.00
Extended contracts	2.81	1.00
Individual conferences	3.17	2.00
University workshops	3.02	3.00
Use of resource people	2.88	3.00
Special assistance to new teachers	3.17	2.00
Printed materials - commercial	2.81	1.00
Printed materials - staff devised	2.69	3.00
Assistance from other teachers	2.50	2.00

Other Information. According to the principal, limited financial resources have been a factor in preventing progress in the I.S. program. For example, materials that the staff would like to make available to students cannot be purchased.

A second factor which may affect some of the data, particularly that dealing with leadership, is the turnover in administrative staff. This staff consists of a principal, a curriculum director, and two deans. The curriculum director and the boys' dean were new to the program this year. The principal was leaving at the end of the year to take another position.

<div align="center">School B</div>

The School

School B, a part of a large-city school system, is located on the edge of the city. It serves a student body of about 2,200 ninth-graders through twelfth-graders. The median home value in the district is about $7,500 to $8,000[1] with the exception of two areas in which the average value is about $12,000. There are numerous retail sales stores located in the district. Thirty-two and four-tenths per cent

---

[1] From a 1962 study conducted by the staff in preparation for an evaluation by the State Department of Education.

of the adults have completed eight years or less of schooling and 4.5

per cent have four or more years of college. Forty and one-tenth per

cent of the adults are white-collar workers; for the entire city, 51.5

per cent of the adults work at white-collar jobs.

Forty-six and eight-tenths per cent of the school's graduates go

on to some kind of advanced education. Of those who don't, most

find work in clerical and sales fields.

The independent study program, which has been in operation

for three years in this school, was placed in the successful category

by the panel of experts.

The Program

Program Objectives. Students in School B reported that teachers

have spent from moderately to little time (2.51)[1] talking to them about

the objectives of the independent study program. They see the most

important objectives as being to learn to do things on their own (1.39),

having time to do teacher-given assignments (1.69), and having time

to do things in which they are interested (1.80).

---

[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not
at all -- 2.51 falls just about half way between "Moderately" and
"Little."

The administrative director (A. D.) of the program indicates that the objectives are in writing. Ninety per cent of the staff also indicate that they are in writing. Seventy-nine per cent have a copy of the written objectives.

Table 13 indicates that the A. D. and staff are close to agreement on the level of understanding of program objectives possessed by the staff and also on which objectives have received the greatest emphasis.

TABLE 13

COMPARISON OF A. D. AND STAFF RESPONSES
TO PROGRAM OBJECTIVES QUESTIONS

Question	According to Teachers	A. D.
To what extent have the objectives been discussed with the staff?	1.84	1.00
To what extent is the staff knowledgeable about them?	1.75	1.00
To what extent do they apply these in their work?	2.00	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	1.55	1.00
Develop inquiring mind	1.67	1.00
Develop self-discipline	1.59	1.00
Develop self-initiative	1.42	1.00
Develop resourcefulness	1.56	1.00
Develop self-evaluation skills	2.16	2.00
Develop research skills	1.85	2.00
Provide for individual differences	1.64	1.00
Free the teacher's time	2.78	1.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale. For this entire study, the mean number of "Greatly"s in this section was .85 per teacher. At School B is was 1.23. The mean number of "Moderately"s in this section was 1.28, while at School B it was 1.55.

The A. D. surmised that other administrators and members of the independent study committee would identify the principal, the chairman of the I.S. committee, and the committee itself as the source of leadership, while the teachers would identify the I.S. committee. Responses of members of the I.S. committee were not identified, so that portions of this theory cannot be proved. However, Table 14 tends to support the pattern as seen by the A.D.

General Organization for Instruction. This school has 21 modules of 20 minutes each day and is programed on a five-day cycle. Large-group and small-group instruction are used to a great extent. The amount of each varies from ability level to ability level but differs little between grade levels.

About 60 per cent of the instructional program is organized for team teaching. The typical teacher has no specific class or supervision assignment during about one-third of the regular school day.

TABLE 14

SOURCES OF PROGRAM LEADERSHIP

Source		According to	
	A.D.	Teachers	Administrators
Principal	1.00	2.14	1.40
A.D.	2.00	2.43	1.80
Other administrators	2.00	3.04	2.00
Department chairmen	2.00	2.55	2.00
A specific teacher (most respondents identified the chairman of the I.S. committee)	1.00	2.71	1.50
A specific group of teachers (almost all respondents identified the I.S. committee)	1.00	1.77	1.40

Independent Study Program Organization. All students are provided with independent study time. Sixty per cent of the sample indicated that they had 35 per cent or more of the school day unscheduled. Thirty-eight per cent reported 20 to 30 per cent of their time unscheduled, while 2 per cent had less than 20 per cent free time. The tendency of the more-able students to enroll in more classes reduces the I.S. time available to them. However, although the less-able students tend to take fewer classes, these classes are frequently scheduled for longer periods of time, reducing the amount of I.S. time of these students to only slightly more than that of the academically able students.

Independent study privileges are considered a regular part of the school program and are not restricted because of conduct or achievement records, although such restrictions were being considered for the following year. No study halls, detentions, or structured I.S. are used. Teachers are given substantial freedom to decide how their classes will be scheduled, but this does not include the opportunity to schedule the student's I.S. time.

School B has a rigidily enforced closed campus policy.[1] Students are not permitted to be in the halls or move between study areas except between modules. This is not enforced at all times, but only as the movement or noise interferes with learning activities.

Origin of Study Activities. As a means of determining where student independent study activities originate, teachers were asked to identify the settings in which they gave independent study assignments to students.

Table 15 indicates the I.S. activities originate about equally in three of the settings, with about 50 per cent more assignments given in the small-group setting than in any of the others.

---

[1]Students are not permitted to leave the school grounds during the school day.

TABLE 15

PERCENTAGE OF I.S. ACTIVITIES ORIGINATING
IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	20
Small group	33
Traditional size	21
One-to-one	20
Other	6

Students were asked how they spent their I. S. time and teachers
were asked how they thought students spent their time. The responses
(Table 16) give some indication of the extent to which a student's I.S.
time is teacher dominated.

TABLE 16

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of time Spent According to	
	Students	Teachers
Doing specific teacher-given assignments	34	17
Doing general teacher-given assignments (student makes a choice)	19	14
Studying what the student wants	16	13

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during independent study time. Table 17 indicates that grades, the student's own interest in the work, and pressure from parents were most important. Pressure from other students and being observed by staff members were least important.

TABLE 17

PRESSURES AFFECTING I. S. ACTIVITIES

Pressure	Student Responses
Grades	1.85
Other teacher pressure	2.69
Own interest in work	2.04
Being observed	3.09
Other students	3.21
Parents	2.38

Teachers indicated that they made a moderate (1.88) effort to build into the classroom activities factors which were designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate student interest, 53 per cent of the staff listed only one technique, 37 per cent listed two, 27 per cent listed three, and 15 per cent listed four. Teachers also

reported that they relied upon grades (2.32) moderately and student self-interest in the work (1.71) more-than-moderately as means of stimulating students.

Students (2.88) and teachers (3.12) agreed that students are required only to a limited extent to discuss I.S. activities individually with their teachers.

As one means of stimulating student interest, I.S. projects are displayed on bulletin-boards, in display cases, and in the teachers' office areas. Promotional posters have been produced and displayed by the teacher I.S. committee. The student council has not played an active role in independent study, although the council's activities dealing with conduct and cleanliness have had some effect.

Preparation of Students. In the opinion of the school staff, feeder schools do very little to prepare students to participate effectively in the I.S. program. The A.D. reports that no specific preparation program is provided in the elementary schools. Teachers find little (3.00) evidence of preparation.

Incoming freshmen visit the high school in the spring, and high school staff members meet with parents and students in their elementary buildings. Printed materials describing the high school program are also distributed to students and parents. In the fall, all staff members who have freshmen in their classes spend the first week of school on

orientation activities with these freshmen. In addition to this,

teachers report that they spend a moderate (2.39) amount of class

time throughout the year discussing the I.S. program.

Students who are having difficulty making good use of I.S. are

helped through the regular counseling program and through a faculty

advisor whom they select. Other teachers hold periodic conferences

with their students as needed.

Students report that moderate to little (2.51) class time has

been devoted to discussing the I.S. program. They indicate that the

teachers, collectively, provide a moderate amount of (1.83) help.

The students report little (2.63) understanding of the program before

they entered the school. They feel they have received from moderate

to little (2.56) help from other students.

Supervision of Students. Students do not have to be in any particular

place during unscheduled time, except they must remain on the grounds.

There is a relaxation area open to them in the cafeteria at all times,

and a large outdoor courtyard is available whenever weather permits.

Supervision in the library is provided by the librarian and two

aides. In the resource centers, supervision is handled by para-

professionals. The A.D. indicated that although the para-professionals

are always present in the resource centers, they spend little time

actually supervising students; their presence is usually enough to

maintain adequate discipline.

It is interesting to note that once again students identify the primary source of supervision as teachers while the A.D. believes it to be non-certified personnel. As explained earlier in this report (Supervision section under School A), this may be caused by a difference in the wording of the questions. A comparison of the A.D.'s and the student's responses appears in Table 18.

TABLE 18

SOURCE OF STUDENT SUPERVISION DURING I.S.

| Source | According to | |
	A.D.	Students
Teachers	3.00	2.38
Other adults	1.00	2.54
Other students	3.00	3.02

Teachers estimated that 22 per cent of their non-instructional time was used for supervision, but much of this was by teachers of laboratory courses who spent most of their non-class time supervising open labs. All teachers are also assigned some supervisory time in the cafeteria.

Physical Facilities. School B was originally designed for a traditional program, but has had some remodeling done to fit it for the modular program.

The traditionally designed library, which seats about 180, all at tables, has a good collection of materials. Open from 7:30 a.m. to 4:30 p.m., it is staffed by a librarian, an associate librarian, and two aides. Immediately adjoining the library, and accessible from it, is the audio visual center, where students may borrow both AV equipment and materials. A reading development lab is also located in the library complex.

These seven resource centers, serving various subject matter interests, are scattered throughout the building: (1) English; (2) social studies; (3) math; (4) science; (5) freshman English and social studies; (6) business education; and (7) home economics, industrial arts, art, physical education, and health. Seating capacities range from 30 to 75. The centers have a variety of AV equipment, including tape recorders, record players, slide projectors, film strip viewers, calculators, adding machines, microfilm readers, and typewriters. Seating in most of these centers is at tables but these centers do include some individual study carrels. In every case the atmosphere is pleasant; although many students use these centers, they remain quiet. The centers are staffed by para-professionals, and are open from 8:00 a.m. to 4:00 p.m.

Very adequate laboratory facilities are available in most laboratory instruction areas. With few exceptions, these are available to I.S.

students whenever there is space available, which seems to be most of the time. With the notable exception of home economics, where special programs utilizing volunteer student aides have been organized, the labs do not appear to get heavy use. The labs are supervised by teachers, with the exception of the foreign language lab, where a technician supervises and operates the console.

An attractive cafeteria, which sells snacks, is open to students at any time. Students are required to be seated, and a teacher is on duty at all times.

A large, terraced courtyard is also available to students, weather permitting. It is attractively landscaped and contains ample lawn area and banks of concrete steps.

Each teacher has an office. Some are located in office complexes, some in study centers, and some in areas by themselves. In most cases they are accessible to students.

In a building which was designed for a traditional program, School B has developed excellent physical facilities for the independent study program.

Material and Human Resources. Printed materials available to students in both the library and the resource centers appear to be excellent. The library collection is very adequate and includes expanded collections of periodicals and vocational materials. The

resource centers contain good collections of texts, references, general collections in the appropriate subject areas, and periodicals.

The AV collection in the school appears to be barely adequate but the school has access to the district collection, which is extensive in all areas.

Printed materials are readily accessible to all students and may be checked out either in the library or in the resource centers. Along with AV materials appropriate to a particular subject area, some AV equipment is located in the resource centers. Other equipment and materials are available in the AV center adjoining the library. Equipment and material housed in the school are readily available, but those which must come from the district center require some time to obtain.

According to the teachers, materials for the resource centers are selected by the teachers, department chairmen, and librarian (see Table 19).

The materials for the library and the resource centers are coordinated through the library staff and are all under the administrative supervision of the curriculum vice-principal.

TABLE 19

PERSONNEL WHO SELECT MATERIALS FOR STUDY
AREAS OTHER THAN THE LIBRARY

Personnel	According to	
	Teachers	A. D.
Building administration	2.64	1.00
Department chairmen	1.78	1.00
Teachers	1.64	2.00
Students	2.88	2.00
Librarian	2.22	1.00
Non-certified personnel	2.14	3.00
District personnel	3.14	2.00

Both the teachers and the A. D. report that heavier emphasis has

been placed on encouraging students to use other teachers as resources

than do the students who report that they have been encouraged more to

make use of outside resource people. In either case the actual use level

appears to be between moderate and little (see Table 20).

Students reported that their own teachers were moderately (1.90)

available to them and that they voluntarily spent from moderate to little

(2.77) time with these teachers. The students also indicated that

teachers made little (2.88) effort to require them to discuss I.S. work

individually.

TABLE 20

STUDENT USE OF RESOURCE PEOPLE

Question	According to		
	Students	Teachers	A. D.
To what extent are students encouraged to use other teachers?	2.66	1.90	1.00
To what extent do they use other teachers?	2.98	2.50	2.00
To what extent are students encouraged to use outside resource people?	2.48	2.55	3.00
To what extent do they use outside resources?	2.75	2.86	3.00

Special note should be made of the para-professionals who staff the resource centers. They must have a college major or minor in the subject area handled in the center. Because the centers are so heavily used, the para-professionals have considerable contact with the students.

Evaluation. School B is one of 11 involved with Stanford University in a study designed to assess the effectiveness of their total innovative program, of which independent study is a part. In addition to this, the I.S. committee conducts an evaluation and the administration subjectively evaluates. Standardized achievement test scores are analyzed and the results are as good or better than they were prior to the inception of the program. College performances of School B's

graduates are also reviewed. A state college, which draws many of School B's graduates, reports that School B has the lowest percentage of probationary students of any high school in the city system.

According to the A. D., a moderate effort is made to evaluate the teacher effectiveness in the program, but teachers believe that only a little (3.25) effort is made.

Teachers indicate that moderate (2.34) effort is made to aid students in evaluating their own progress in terms of both short-range and long-range objectives. This is done through individual conferences with teachers and through the counseling program.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 21. Responses vary from moderate to little, with staff devised printed materials, assistance from other teachers, and special meetings ranked highest.

Other Information. School B had private foundation financial help for the first three years of the program. It now also has some outside of district financial help for its I.S. committee.

This school is currently offering about 15 enrichment courses in which students may take part during their I.S. time. These courses usually meet for a few modules each week and are often developed around teacher hobbies; for example, oil painting, conversational Greek, knitting, weight lifting, and history of American ideas.

TABLE 21

IN-SERVICE ACTIVITIES USED TO IMPROVE INDEPENDENT STUDY PROGRAM

Activity	According to	
	Teachers	A. D.
Regular faculty meeting	2.51	2.00
Special meetings during the school year	2.38	2.00
Extended contracts	3.35	2.00
Individual conferences	2.94	2.00
University workshops	3.29	2.00
Use of resource people	2.76	2.00
Special assistance to new teachers	2.76	2.00
Printed materials - commercial	2.91	3.00
Printed materials - staff devised	2.31	2.00
Assistance from other teachers	2.32	2.00

School C

The School

School C is a city school in a community which is highly
industrialized and is surrounded by agricultural land. It serves a
student body of 1,200 seventh-graders through twelfth-graders,
although the data in this study were collected only from students and
teachers of grades nine through twelve. Adults in the community are

primarily operatives or laborers in the industrial plants; less than half are high school graduates.

Thirty-seven per cent of the graduates of School C go on to some form of advanced education. Many of the rest are employed in local plants. The dropout rate in this school, down to 13 per cent for the 1966 graduating class, was in excess of 20 per cent two years ago.

The independent study program, which has been in operation seven years in this school, was placed in the successful category by the panel of experts.

The Program

Program Objectives. Students in School C reported that teachers have spent little time (2.73)[1] talking to them about the objectives of the independent study program. They see the highest ranking objectives as being to learn to do things on their own (1.28), having time to do things they are interested in (1.60), and having time to do teacher-given assignments (1.94).

The administrative director (A.D.) of the program indicates that the objectives are in writing. Eighty-nine per cent of the staff

---

[1]1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 2.73 falls between "Moderately" and "Little" but closer to "Little."

also indicate that they are in writing. Sixty-five per cent have their

own copy.

Table 22 indicates that the staff and A. D. do not agree on the

extent to which program objectives have been discussed and are

understood; nor do they agree as to what these objectives are.

TABLE 22

COMPARISON OF A. D. AND STAFF RESPONSES
TO PROGRAM OBJECTIVE QUESTIONS

Question	According to Teachers	A. D.
To what extent have the objectives been discussed with the staff?	2.20	1.00
To what extent is the staff knowledgeable about them?	2.07	1.00
To what extent do they apply these in their work?	2.29	3.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	1.87	2.00
Develop inquiring mind	1.67	3.00
Develop self-discipline	1.89	1.00
Develop self-initiative	1.68	1.00
Develop resourcefulness	1.84	2.00
Develop self-evaluation skills	2.33	1.00
Develop research skills	1.87	1.00
Provide for individual differences	1.53	1.00
Free the teacher's time	3.18	4.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members in the "Leadership" section of the data-collecting instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale. For the entire study the mean number of "Greatly"s in this section was .85 per teacher. At School C it was 1.20. The mean number of "Moderately"s in this section was 1.28, while at School C it was 2.07.

Table 23 indicates that teachers find leadership emanating moderately from a wide range of sources, with the A. D. ranked highest.

TABLE 23

SOURCES OF PROGRAM LEADERSHIP

Source		According to	
	A.D.	Teachers	Administrators
Principal	2.00	2.64	1.75
A. D.	1.00	2.07	1.50
Other administrators	1.00	2.85	1.50
Department chairmen	3.00	2.55	2.75
A specific teacher (a majority of respondents named the librarian)	4.00	2.29	4.00
A specific group of teachers (a majority of respondents named the I. S. committee)	1.00	2.19	1.50

General Organization for Instruction.   This school has 15 modules of 27 minutes each day and is programed on a five-day cycle.   Large-group and small-group instruction are used extensively.   The amount of each varies from ability level to ability level but differs little between grade levels.

About 50 per cent of the instructional program is organized for team teaching.   The typical teacher has no specific class or supervision assignment during about one-quarter of the school day.

Independent Study Program Organization.   All students operate on the modular schedule and have some time during which they are not assigned to regular classes.   However, only about 60 per cent have independent study time.   The other 40 per cent are assigned to study halls.   Students must apply for I.S. privileges and be approved by all of their small-group teachers and by the student council.   Although the only criterion is conduct, there are many more more-able students than less-able students engaged in independent study.   The sample from this school was drawn entirely from among students who have independent study.   Fifty per cent of the sample indicated that they had 35 per cent or more of the school day unscheduled.   Forty-one per cent reported 20 to 30 per cent of their time unscheduled, while 9 per cent had less than 20 per cent free time.   More-able students take more regular classes, reducing the I.S. time available to them.   However, because

classes for less-able students tend to be scheduled for more modules, I.S. time available to the less-able students only slightly exceeds that for the more-able. About 60 students have made individual arrangements with teachers to do classwork independently, attending only some or perhaps none of the classes. There is also a pilot program involving 10 academically advanced ninth graders in which they attend no classes and spend 100 per cent of their time on I.S.

All I.S. students are assigned to the instructional materials center and are expected to report there unless they have made arrangements with a teacher to use some other facility. Attendance is not taken in the I.M.C., but a student may lose his I.S. privileges if he is asked to account for his whereabouts and can not do so. I.S. privileges are also forfeited because of misconduct but are not lost because of lack of achievement.

School C has a closed campus and students are not permitted to be in the halls during modules. This policy is rigidly enforced.

Teachers are free to structure their own class schedules, including the determination as to where a student will spend his I.S. time.

Origin of Study Activities. As a means of determining where student independent study activities originate, teachers were asked to identify the settings in which they gave independent study

assignments to students.   Table 24 indicates that 62 per cent of such assignments originate in large groups or small groups and 19 per cent in one-to-one conferences.

TABLE 24

PERCENTAGE OF I. S. ACTIVITIES ORIGINATING
IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	32
Small group	30
Traditional size	12
One-to-one	19
Other	11

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time.   The responses (Table 25) give some indication of the extent to which student I. S. time is teacher dominated.

Motivation Techniques.   Students were asked to indicate to what extent certain pressures influenced their choice of activities during

TABLE 25

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of time Spent According to	
	Student	Teacher
Doing specific teacher-given assignments	37	38
Doing general teacher-given assignments (student makes a choice)	16	16
Studying what the student wants	16	15

independent study time.   Table 26 indicates that grades, and the student's

own interest in the work ranked highest, while pressure from other

students, and being observed by staff members ranked lowest.

TABLE 26

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	1.80
Other teacher pressure	2.66
Own interest in work	1.91
Being observed	2.99
Other students	3.22
Parents	2.43

Teachers indicated that they had made a moderate (2.00) effort
to build into the classroom activities factors which were designed to
stimulate student interest in I.S. activities. When asked to list those
specific teachniques which they used to stimulate student interest, 73
per cent of the staff listed one such technique, 49 per cent listed two,
29 per cent listed three, and 20 per cent listed four. The teachers
also reported that they relied upon grades from moderately to little
(2.40) and upon student self-interest in the work more than moderately
(1.76) as means of stimulating student interest.

Students felt that teachers required them to discuss I.S.
activities individually with them more than a little (2.72) while
teachers believed they required very little (3.38) of this kind of
communication.

The A.D. believed that the biggest single factor built into the
program to stimulate student interest in productive I.S. work is the
fear of losing I.S. privileges. Students enjoy the freedom of I.S.
and are careful not to jeopardize it.

Preparation of Students. Since this school services grades
seven through twelve, the preparation of students for participation
in the I.S. program is unique to this school. The staff has two years
to prepare ninth graders for participation. A few seventh graders
actually have I.S. time by the middle of their first year. All of them

have 18 hours of small-group instruction, under the direction of the librarian, in use of the I. M. C. and of I. S. time. They are then eligible to apply. By the time they are ninth graders they all have seen the program in operation for two years and many have actually been involved in it.

Students who are having difficulty making effective use of I. S. time frequently receive help from their own teachers. The teachers not only have class time in which to make contact, but since all teacher offices are a part of the I. M. C., students and teachers can have frequent contact during I. S. time. Students voluntarily discuss I. S. work moderately (2.26) although teachers require this discussion only to a limited extent (2.72).

Students report that little (2.73) class time is devoted to discussing the I. S. program, but that teachers, collectively, provide moderate to great (1.64) help. They receive a moderate (2.38) amount of help from other students.

Supervision of Students. Students must spend their I. S. time in the library unless they have permission from a teacher to spend it in some other place, perhaps an open lab. Permission is easy to get and students do spend time in such places as open labs. The limitation here is much more one of lack of facilities than it is of restrictive regulations.

Supervision in the I. M. C. is provided by the librarian, and one aide, and incidentally by the teachers. Because teacher offices are located in the I. M. C., teachers frequently walk through and talk to students, although they are not responsible for supervision in this area. All other areas are supervised by teachers.

Table 27 shows that both the A. D. and students believe that supervision comes about equally from teachers and aides.

TABLE 27

SOURCE OF STUDENT SUPERVISION DURING I. S.

| Source | According to | |
	Students	A. D.
Teachers	2. 57	2. 00
Other adults	2. 57	2. 00
Other students	3. 44	4. 00

Teachers estimated that 11 per cent of their non-instructional time was used for supervision. Part of this is allocated to open labs and part to noontime cafeteria duty.

Physical Facilities. School C is an older building which appears to be outmoded in almost all respects except for a relatively new instructional materials center. The instructional materials center is a functionally outstanding facility designed specifically for the I. S.

program. It contains 130 study carrels, tables and chairs for 100, 3
conference rooms, the AV center, listening and viewing rooms,
teacher offices, and teacher workrooms. Glass partitions provide
functional areas, yet maintain openness.. It affords adequate privacy
for study and is easily supervised. Traffic patterns are such that
movement around the library collection is not distracting to students
or staff members who are studying. It is the physical heart of the
I.S. program.

Although laboratory facilities are extremely limited at School
C, most of the labs are open to students on a space available,
permission from teacher basis. The laboratories are few in number
and are inadequately equipped. Because of these limitations, I.S.
students make little use of them. All labs are supervised by teachers.

Each department has an office area located in the I.M.C.
Although some teachers must share a desk with another staff member,
every teacher has access to a desk. These desks are separated from
the student study area but are readily accessible from it, and often
are visited by students. There is a workroom area located in the
middle of the I.M.C.

Material and Human Resources. The printed materials avail-
able to students in the I.M.C. seem to be good in both quantity and
quality and include an expanded collection of periodicals and

pamphlets. Because of the structure of the I.S. program, the materials get heavy use.

Printed materials are readily accessible to students and may be checked out. The accessibility of all materials to students is enhanced by the instructional materials center organization; they are available from a single location. The AV equipment and materials are also housed here and may be checked out by students.

As might be expected in a program designed around an instructional materials center, teachers see the librarian as having the greatest influence in the selection of materials. But teachers also believe that they, too, as well as the department chairmen, have more-than-moderate influence (see Table 28).

TABLE 28

PERSONNEL WHO SELECT MATERIALS FOR THE
INSTRUCTIONAL MATERIALS CENTER

Personnel	According to	
	Teachers	A.D.
Building administration	2.29	3.00
Department chairmen	1.76	1.00
Teachers	1.72	1.00
Students	2.93	4.00
Librarian	1.42	1.00
Non-certified personnel	3.47	4.00
District personnel	3.13	3.00

Students and teachers closely agree on the amount of encourage-
ment given students to use other teachers and outside resource people.
And they agree, too, on the actual use which students do make of
resource people. The actual use level is between moderately and
little (see Table 29).

TABLE 29

STUDENT USE OF RESOURCE PEOPLE

Question	According to		
	Students	Teachers	A. D.
To what extent are students encouraged to use other teachers?	2.39	2.25	1.00
To what extent do they use other teachers?	2.74	2.82	1.00
To what extent are students encouraged to use outside resource people?	2.61	2.60	4.00
To what extent do they use outside resources?	2.86	2.96	4.00

Students reported that their own teachers were from moderately
to greatly (1.69) available to them and that they voluntarily spent a
moderate (2.26) amount of time with these teachers.

Students also indicated that teachers made more than a little
(2.72) effort to require them to discuss I.S. work individually.

Evaluation. No formal procedure is used to evaluate the effectiveness of the I.S. program. The only objective data is from standardized achievement tests. Student scores on these have improved slightly. The A.D. indicates that the staff subjectively evaluates the program and that college student returnees report that, in adjusting to the demands of college, they are ahead of graduates from traditional programs.

Both the A.D. and the teachers report that little effort is made to evaluate teacher effectiveness in the I.S. program.

The A.D. believes that a great effort is made to aid students in evaluating their own progress in terms of both short-range and long-range objectives. He indicates that this is done by teachers in the small groups and on a one-to-one basis in the I.M.C. Teachers believe that from moderate to little (2.64) effort is made to give students this kind of help.

Staff In-Service Activities. The extent to which various in-service activities have been used may be seen in Table 30. Responses vary from moderately to little, with assistance from other teachers, special meetings, and staff-devised written materials ranked highest.

TABLE 30

IN-SERVICE ACTIVITIES USED TO IMPROVE
INDEPENDENT STUDY PROGRAM

Activity	According to	
	Teachers	A. D.
Regular faculty meetings	2.60	2.00
Special meetings during the school year	2.22	3.00
Extended contracts	3.27	3.00
Individual conferences	2.76	2.00
University workshops	2.42	1.00
Use of resource people	2.53	3.00
Special assistance to new teachers	2.51	2.00
Printed materials - commercial	2.55	2.00
Printed materials - staff devised	2.23	3.00
Assistance from other teachers	2.14	2.00

Other Information. School C has operated this program with
less financial support than is found for similar programs in most
school districts. Low salaries and the resulting staff turnover have
handicapped the development of the program, according to the
administrative staff. The level of financial support is also apparent
in all physical facilities except the I. M. C.

School D

The School

School D has an enrollment of about 1,200 sophomores, juniors, and seniors and is one of two high schools in a community which is industrial and agricultural. About 70 per cent of the parents are industrial workers or managers, with more than an average number of managerial level occupations represented. The remaining 30 per cent are service and agricultural workers.

Seventy-one per cent of the students reported they planned to attend college; and 9 per cent, some other kind of advanced training. Fifteen per cent planned on finding immediate employment.

The independent study program, which has been in operation for two years in this school, was placed in the less successful category by the panel of experts.

The Program

Program Objectives. Students in School D reported that teachers have spent little time (3.07)[1] talking to them about the

_____

[1]1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 3.07 falls almost on "Little."

objectives of the independent study program. They see the highest ranking objectives to be learning to do things on their own (1.42), having time to do teacher-given assignments (1.75), and having time to do things in which they are interested (1.89).

The principal and 61 per cent of the staff indicate that the objectives are not available in writing.

Table 31 indicates that the principal and staff are in near agreement on the level of understanding of program objectives possessed by the staff. They also agree as to which objectives have received the greatest emphasis.

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale.

For the entire study the mean number of "Greatly"s in this section was .85 per teacher. At School D it was .57. The mean number of "Moderately"s in this section was 1.28, while at School D it was .86.

TABLE 31

COMPARISON OF PRINCIPAL AND STAFF RESPONSES
TO PROGRAM OBJECTIVES QUESTIONS

Questions	According to	
	Teachers	Principal
To what extent have the objectives been discussed with the staff?	2.59	2.00
To what extent is the staff knowledgeable about them?	2.48	2.00
To what extent do they apply these in their work?	2.70	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	2.11	3.00
Develop inquiring mind	1.89	2.00
Develop self-discipline	1.68	2.00
Develop self-initiative	1.57	2.00
Develop resourcefulness	1.89	3.00
Develop self-evaluation skills	2.25	3.00
Develop research skills	1.89	2.00
Provide for individual differences	1.75	2.00
Free the teacher's time	2.57	4.00

Table 32 indicates that while teachers found department chairmen
to provide the most leadership, the extent of this leadership was less-
than-moderate.

TABLE 32

SOURCES OF PROGRAM LEADERSHIP

Source	According to Principal	According to Teachers
Principal	3.00	2.68
A. D.	4.00	3.30
Other administrators	3.00	3.41
Department chairmen	1.00	2.39
A specific teacher	4.00	3.50
A specific group of teachers	4.00	3.63

General Organization for Instruction. This school has 14 modules of 25 minutes each per day and is scheduled on a five-day cycle. Large-group and small-group instruction are used. The program is organized for team teaching, but little team teaching was seen during the observation.

Independent Study Program Organization. All students operate on a modular schedule and have time when they are not assigned to a traditional instructional situation. With the exception of the three modules per week for which each student is assigned to the library, most of this non-instructional time is rescheduled. That is, the student is assigned to a teacher (most often other than one of his class teachers) and to a room.

The student's own teachers may assign him to I.S. time in one of the two study centers in lieu of some of his rescheduled time. According to the principal, about 30 per cent of the sophomores and 50 per cent of the juniors and seniors spent I.S. time in the study centers. However, when student schedules were reviewed by the researcher, it appeared that a much smaller percentage than indicated by the principal actually had I.S. time.

Additional evidence became apparent when the researcher attempted to identify the student sample, which was to consist of 12 above-average, 12 below-average, and 24 average students at each grade level. No more than four low-ability students were found at any grade level, and at the sophomore and junior levels the average sample could not be completed.

Fifty-four per cent of the sample indicated that they had less than 20 per cent of the school day unscheduled. Thirty-four per cent reported 20 to 30 per cent unscheduled, while 12 per cent had 35 per cent or more free time.

According to the principal the criteria for assignment to independent study are desire and a sense of responsibility. I.S. privileges are revoked for breaches of discipline but not for achievement failings. All I.S. students are assigned to study centers where roll is taken. They may sign out to use other facilities in the school.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the settings in which they gave independent study assignments to students.

Table 33 indicates that more assignments are given in traditional settings than in any other.

TABLE 33

PERCENTAGE OF I. S. ACTIVITIES ORIGINATING
IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	13
Small group	20
Traditional size	42
One-to-one	16
Other	9

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time. The responses in Table 34 give some indication of the extent to which a student's I. S. time is teacher dominated.

TABLE 34

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of time Spent According to	
	Students	Teachers
Doing specific teacher-given assignments	33	42
Doing general teacher-given assignments (student makes a choice)	18	20
Studying what the student wants	18	16

Motivation Techniques. Students were asked to what extent certain pressures influenced their choice of activities during independent study time.

Table 35 indicates that the student's own interest and grades ranked highest.

TABLE 35

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	2.09
Other teacher pressure	2.96
Own interest in work	1.84
Being observed	3.08
Other students	3.52
Parents	3.00

Teachers indicated that they made a moderate (1.97) effort to build into classroom activities factors designed to stimulate student interest in I.S. activities. When the staff was asked to list specific techniques used to stimulate student interest, 40 per cent listed one such technique, 28 per cent listed two, 16 per cent listed three, and 5 per cent listed four. The teachers reported that they relied upon grades from moderately to little (2.67) and upon student self-interest moderately (1.80) as means of stimulating student interest.

Students (3.64) and teachers (3.44) agreed that very little effort was made to require individual discussion with teachers concerning I.S. activities.

The principal reported that the honor of qualifying for I.S., and the desirable study atmosphere in the study centers were factors built into the program to encourage good student use of I.S. time.

Preparation of Students. In the opinion of the high school staff, feeder schools do very little to prepare students to participate effectively in the I.S. program. The principal reported that no preparation program is provided in the junior highs. Teachers also found very little (3.21) evidence of preparation.

The principal and counselors visit the students in the junior highs, and a one-day orientation program for incoming sophomores is

conducted at the high school. Teachers devote little (2. 76) class time to discussing independent study.

No special program is provided for students who are not operating effectively in the program. They can get some help through the regular counseling program.

Students report that little (3. 07) class time has been devoted to discussing the I.S. program, but that teachers, collectively, do provide moderate (1. 87) help. Students had from moderate to little (2. 69) understanding of the program before they entered the school and they received from moderate to little (2. 58) help from other students.

Supervision of Students. Students engaged in I.S. must first report to a specific study center and then may sign out to the library or some other facility in the building. Supervision in the study centers is provided by a full time aide in each and by teachers who occupy an office in the center. All other areas are supervised by teachers.

Table 36 indicates that the students find the most supervision coming from teachers, while the principal believes that aides play the biggest role.

TABLE 36

SOURCE OF STUDENT SUPERVISION DURING I.S.

Source	According to	
	Principal	Students
Teachers	3.00	2.51
Other adults	2.00	2.76
Other students	4.00	3.79

Teachers estimated that 14 per cent of their non-instructional time was used for supervision.

Physical Facilities. School D was designed and built to house a team-teaching program which includes large-group and small-group instruction.

The two study centers are the primary facilities for I.S. The science-math center seats 24 students, eight at carrels and the remainder at tables. Its resources are limited to some periodicals and a few texts. The humanities center seats 32, five at carrels and the rest at tables. Its resources are also limited to some periodicals and a few texts. Few students were seen in either center during three days of observation.

The library is an attractive facility which seats about 105. It has 32 individual carrels and two small conference rooms. Since all

students (1,200) are assigned three modules per week in the library it is usually crowded.

Adequate laboratory facilities are available in most laboratory instruction areas but receive little use in the independent study program. They may be used with permission of the teachers involved but are usually full because of classes or reschedule time.

Material and Human Resources. Printed materials in the library are less-than-adequate by national standards but are considered adequate in that region, according to the librarian. The periodical collection is probably the most adequate aspect of the library. The printed materials collection in the study centers is very small. The AV materials collection is very small and is not used in the I.S. program.

Materials for the study centers are selected primarily by the librarian and teachers (see Table 37).

Apparently little effort is made to encourage students to use, in connection with their I.S. work, other teachers or outside resource people (see Table 38).

Students report that their own teachers were less-than-moderately (2.26) available to them and that students voluntarily spent little (2.73) time with their teachers. Students also reported that teachers made very little (3.64) effort to require them to discuss I.S. work individually.

TABLE 37

PERSONNEL WHO SELECT MATERIALS FOR THE
INSTRUCTIONAL MATERIALS CENTER

Personnel	According to	
	Teachers	Principal
Building administration	2.67	2.00
Department chairmen	2.22	1.00
Teachers	1.93	1.00
Students	3.12	4.00
Librarian	1.82	1.00
Non-certified personnel	3.76	4.00
District personnel	3.28	3.00

TABLE 38

PERSONNEL WHO SELECT MATERIALS FOR STUDY AREAS
OTHER THAN THE LIBRARY

Question	According to		
	Students	Teachers	Principal
To what extent are students encouraged to use other teachers?	3.19	2.49	3.00
To what extent do they use other teachers?	3.14	2.81	3.00
To what extent are students encouraged to use outside resource people?	3.48	2.65	3.00
To what extent do they use outside resources?	3.48	2.74	3.00

Evaluation. No formal procedure is used to evaluate the effectiveness of the I.S. program. College student returnees report that they have made an easier adjustment to college than have graduates of traditional programs. No evaluation of test results has been conducted. Little or no effort is made to evaluate teacher effectiveness in the I.S. program.

Teachers and the principal agree that little effort is made to aid students in evaluating their own progress in terms of both short-range and long-range objectives. To the extent that this is done, it is done by teachers in their normal contact with students and by counselors in the regular guidance program.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 39.

Other Information. Staff turnover, apparently primarily because of low salaries, has handicapped the program. For the year in which the data for this study were collected, 23 teachers of a staff of 64 were new to the school. The average salary was $4,860, which ranked the district 22nd out of 23 districts in its classification in the state. The annual per pupil expenditure was $321.

The administrative personnel for a student body of 1,200 consists of a vice-principal, who taught one class per day, and a principal.

TABLE 39

IN-SERVICE ACTIVITIES USED TO IMPROVE
INDEPENDENT STUDY PROGRAM

Activity	According to	
	Teachers	Principal
Regular faculty meetings	3.00	3.00
Special meetings during the school year	2.86	4.00
Extended contracts	3.77	4.00
Individual conferences	3.02	3.00
University workshops	3.44	3.00
Use of resource people	2.77	3.00
Special assistance to new teachers	3.09	3.00
Printed materials - commercial	3.05	3.00
Printed materials - staff devised	3.09	3.00
Assistance from other teachers	2.93	3.00

School E

The School

School E has an enrollment of about 2,600 students and is one of
five high schools in a high school district. Employment of the
residents is primarily in nearby aircraft plants and other technical
industries. Many of the parents hold professional or semi-professional
positions and most have attended college.

No follow-up data on school graduates were available, but a review of the aptitude test scores of students indicated a distribution curve which was skewed to the upper levels.

The independent study program, which has been in operation for two years in this school, was placed in the less successful category by the panel of experts.

The Program

Program Objectives. Students in School E reported that teachers have spent little time (2.89)[1] talking to them about the objectives of the independent study program. They see the major objective as having time to do teacher-given assignments (1.59).

The administrative director (A. D.) and 90 per cent of the staff indicated that the objectives are not in writing.

The A. D. believes that much more explanation and understanding of the objectives has been obtained by the staff than does the staff (Table 40).

---

[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 2.89 falls between "Moderately" and "Little" but closer to "Little".

TABLE 40

COMPARISON OF A. D. AND STAFF RESPONSES
TO PROGRAM OBJECTIVES QUESTIONS

| Question | According to | |
	Teachers	A. D.
To what extent have the objectives been discussed with the staff?	2. 65	1. 00
To what extent is the staff knowledgeable about them?	2. 47	1. 00
To what extent do they apply these in their work?	2. 45	2. 00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	2. 29	2. 00
Develop inquiring mind	2. 06	1. 00
Develop self-discipline	1. 96	1. 00
Develop self-initiative	1. 93	1. 00
Develop resourcefulness	2. 13	2. 00
Develop self-evaluation skills	2. 81	2. 00
Develop research skills	2. 16	2. 00
Provide for individual differences	2. 13	1. 00
Free the teacher's time	2. 86	1. 00

Staff Leadership. To indicate the extent to which leadership

emanated from various staff members, in the "Leadership" section of

the data-collection instrument, teachers were asked to respond on a

"Greatly" to "Not at all" scale. For the entire study the mean number

of "Greatly"s in this section was .85 per teacher. At School E it was

.47. The mean number of "Moderately"s in this section was 1.28,

while at School E it was 1.0.

Table 41 indicates that teachers see less leadership being

exercised than do the A.D. or the other administrators.

TABLE 41

SOURCES OF PROGRAM LEADERSHIP

Source		According to	
	A. D.	Teachers	Administrators
Principal	1.00	2.53	1.20
A. D.	4.00	3.76	3.80
Other administrators	2.00	3.49	1.80
Department chairmen	2.00	2.59	1.80
A specific teacher	4.00	3.41	2.80
A specific group of teachers	4.00	3.29	2.60

General Organization for Instruction. This school has 13 modules

of 25 minutes each, plus 60 minutes of passing time each day and is

programed on a two-day cycle. Students are assigned in traditional

class sizes of about 30. Teachers then do their own placing of students

in large groups and small groups to the extent that this is possible

within the mechanics of the teacher's schedule. As a result, little

large-group or small-group instruction is used.

Eight teachers from a staff of 117 are involved in team teaching. The typical teacher has no class or supervision assignment during about 19 per cent of the school day.

Independent Study Program Organization. All students are provided with independent study time. Forty-nine per cent of the sample indicated that they had about 20 to 30 per cent of their school day unscheduled. Twenty-eight per cent reported 35 per cent or more of their time unscheduled, while 23 per cent indicated less than 20 per cent free time. The tendency of the more-able students to enroll in more classes reduces the I.S. time available to them.

Some effort is made to avoid giving students large blocks of time, such as a half-day, for independent study.

I.S. time is not restricted because of achievement record, but it is temporarily restricted for breaches of discipline. A teacher-supervised detention center is maintained and students are punished by having to spend their I.S. time there, usually for a period of three or four weeks.

Students do not have to report to a particular place during I.S., and they can move between study areas at any time as long as they can do so without going into the halls of the main building. Students may not leave the school grounds without permission.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the settings in which they gave independent study assignments to students. Table 42 indicates heavy use of the traditional-sized classroom and little use of the small group.

TABLE 42

PERCENTAGE OF I. S. ACTIVITIES ORIGINATING
IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	20
Small group	9
Traditional size	51
One-to-one	14
Other	6

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time. The responses in Table 43 give some indication of the extent to which a student's I. S. time is teacher dominated.

TABLE 43

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of Time Spent According to	
	Students	Teachers
Doing specific teacher-given assignments	30	33
Doing general teacher-given assignments (Student makes a choice)	16	11
Studying what the student wants	14	10

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during independent study time. Table 44 indicates that grades, and the student's own interest in his work were most important. Pressure from other students was least important.

TABLE 44

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	2.05
Other teacher pressure	2.93
Own interest in work	2.27
Being observed	3.27
Other students	3.46
Parents	2.57

Teachers indicated that they made a moderate (2.19) effort to build into classroom activities factors designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate interest, 54 per cent of the teachers listed one such technique, 41 per cent listed two, 31 per cent listed three, and 9 per cent listed four. The teachers also reported that they relied upon grades less than moderately (2.41) and student self-interest moderately (2.01) as means of stimulating student interest.

Students (3.39) and teachers (3.13) agreed that students are required only to a limited extent to discuss I.S. activities individually with their teachers.

Preparation of Students. Feeder schools, in the opinion of the high school staff, do very little to prepare students to participate effectively in the I.S. program. The A.D. reports that no preparation program is provided in the elementary schools and teachers agree there is very little (3.54) evidence of preparation.

Entering freshmen have a half-day orientation program to the high school at which independent study is referred to briefly. No other orientation program is provided.

No special program, other than detention for disciplinary problems, is provided for students who are not operating effectively in

the program, but such students are given some attention as a regular part of the guidance program.

Students report that little (2.89) class time has been devoted to discussing the I.S. program, but that teachers, collectively, provide a moderate (2.01) amount of help. Students had less than a moderate (2.45) understanding of the I.S. program before they entered the school and they received little (2.77) help from other students.

Supervision of Students. Students are not required to be in any particular place during unscheduled time. There is a relaxation area open to them in the student union part of the time. The weather in the region of School E is such that the school grounds are available much of the time.

Supervision in all areas is provided by teachers. They are assigned to study centers and to the grounds.

Since aides are not used in this school, the responses in Table 45, which show the teachers as the primary source of supervision, are as expected.

Teachers extimated that 16 per cent of their non-instructional time was used for supervision.

Physical Facilities. The first section of School E was opened in 1962; 11 additions have been made since that time. All of the building, except a science complex is of traditional design.

TABLE 45

SOURCE OF STUDENT SUPERVISION DURING I.S.

Source	According to A.D.	Students
Teachers	1.00	2.18
Other adults	4.00	3.44
Other students	3.00	3.30

The library was constructed in 1938 and seats about 65 students at tables. It receives heavy use and is open to students from 7:15 a.m. to 3:30 p.m. Both the facility and the collection are traditional.

There are three study centers, housed in classrooms which have been carpeted. The English center is a double room and seats 70 at standard tablet-arm chairs. The math and social studies centers each seat about 35 at tablet-arm chairs. These centers are open to students at all times during the school day.

The cafeteria, open to students for I.S. at all times except during lunch periods, is heavily used. Seating arrangement is tables and benches. It contains no other equipment or resources.

A science center, located in the science wing, seats about 30 students at tables. It is close to laboratory facilities and science teacher offices.

Adequate laboratory facilities exist in most laboratory instruction areas but receive little use in the I.S. program because of scheduling problems and because most teachers have not accepted the concept of open labs. Those few labs which are available to I.S. students appear to get good use.

The student union is open to students before school, after school, during lunch periods, and during the last module of the day. It is an old, run-down room equipped with a few benches and a snack bar. There is also a fenced-in lawn area which is available to I.S. students, weather permitting.

English and social-studies teachers have departmental offices. Science teachers share offices in the science wing. Most teachers retain classrooms which are basically for their own use.

Material and Human Resources. The collection of printed materials in the library appears to be adequate but is housed in a facility which seats only 65 students out of a student body of 2,635. The study centers are inadequately stocked with study materials. The cafeteria, which is the largest center, has none. The English, math, and social studies centers have only a very few texts, paperbacks, and reference books. The science center has a collection of about 300 volumes of general reference and about 10 periodical titles.

Generally, AV materials are not used in connection with the I.S. program. The foreign language department does use a few tapes. All AV equipment and materials are handled through the various departments, with no provision made for a central facility where AV equipment or materials can be obtained by students.

Those printed materials which the school has may be checked out by students either in the library or in the study centers.

Teachers believe that materials for the study centers are selected primarily by department chairmen and themselves (see Table 46).

TABLE 46

PERSONNEL WHO SELECT MATERIALS FOR STUDY
AREAS OTHER THAN THE LIBRARY

Personnel	According to Teachers	A. D.
Building administration	2.75	2.00
Department chairmen	1.79	1.00
Teachers	1.88	1.00
Students	3.07	1.00
Librarian	2.28	1.00
Non-certified personnel	3.49	4.00
District personnel	2.95	3.00

The library and the study centers operate independently of one another. The library is controlled by the librarian and the study centers by the department chairmen. Most of the suitable materials for independent study are in the library, while most of the space for students is in the centers.

Table 47 indicates that students and teachers agree that little effort has been made to encourage students to use teachers from whom they are not taking classes as resource people. Students and teachers also agree that students make little use of them. The A.D. stated that great encouragement was given students to use other teachers, and that because of the teachers being on duty in the study centers, students did make great use of them as resource people.

TABLE 47

STUDENT USE OF RESOURCE PEOPLE

Question	According to Students	Teachers	A.D.
To what extent are students encouraged to use other teachers?	2.84	2.70	1.00
To what extent do they use other teachers?	3.18	2.84	1.00
To what extent are students encouraged to use outside resource people?	2.93	2.89	3.00
To what extent do they use outside resources?	2.92	3.00	3.00

Students reported that their own teachers were less-than-moderately (2.23) available to them and that they voluntarily spent little (2.94) time with these teachers. They also indicated that teachers made very little (3.39) effort to require them to discuss I.S. work individually.

Evaluation. According to the A.D., no formal procedure is used to evaluate the effectiveness of the I.S. program. Neither a follow-up of college students nor any work with achievement test scores has been done. However, both student and staff surveys, in which participants were asked to evaluate the program, have been conducted.

The A.D. reports that a little effort is made to evaluate teacher effectiveness in the program by subjective administrative appraisal, but teachers believe that very little (3.51) evaluation of the staff is conducted.

Both teachers and administrators believe that little effort is made to aid students in evaluating their own progress in terms of either short-range or long-range objectives. To the extent that this is done, it is done through the regular guidance program and through normal student-teacher contact.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 48.

Teachers indicate that the various activities have been used little or very
little.

TABLE 48

IN-SERVICE ACTIVITIES USED TO IMPROVE
INDEPENDENT STUDY PROGRAM

| Activity | According to | |
	Teachers	A. D.
Regular faculty meeting	3.13	3.00
Special meetings during the school year	3.19	3.00
Extended contract	3.35	2.00
Individual conferences	3.24	2.00
University workshops	3.25	4.00
Use of resource people	3.27	4.00
Special assistance to new teachers	3.04	3.00
Printed materials - commercial	3.19	4.00
Printed materials - staff devised	3.07	4.00
Assistance from other teachers	2.75	3.00

Other Information. School E, after experiencing an apparently
unpleasant first year with the modular schedule, wanted to give it up.
According to the high school administrators, the program was continued
because of pressure from the central office administration. Numerous
staff members commented on this during the three days of observation.

Another factor which seems to have had an effect on the program has been the changing of personnel. The principal, vice-principal in the same building previously, was new to his job in January, 1965. The current vice-principal came into this position at the same time, moving from a similar position in another school in the district. The AV coordinator was new to his position at the beginning of the school year. The librarian started in the middle of the school year.

Also of some importance is the degree of independence of each department. Each department has, to an unusually high degree, control of its own facilities. There seems to be little communication between departments, and members of each department tend to express an unusual amount of criticism of members of other departments.

<div align="center">School F</div>

The School

School F has a student body of about 1,020 ninth-graders through twelfth-graders. It is one of two high schools in a district which serves a residential and still partially agricultural suburban area. Employment is best described as varied, with some emphasis on semi-professional and professional white-collar occupations. The majority of parents have attended college and most of the others are high school graduates.

About two-thirds of this school's graduates go on to some kind of

advanced education, with the remainder finding employment in a wide

variety of occupational areas.

The independent study program, which has been in operation for

two years in this school, was placed in the less successful category by

the panel of experts.

The Program

Program Objectives.   Students in School F reported that teachers

have spent from moderately to little time (2. 52)[1] talking to them about

the objectives of the independent study program.   They see the highest

ranking objectives of the program as learning to do things on their own

(1. 47) and having time to do teacher-given assignments (1. 69).

The principal stated that the objectives of the program were in

writing, but only 34 per cent of the staff agreed.

Table 49 indicates that the principal believes that more time has

been spent discussing the program objectives with the teachers than does

the staff.

---

[1] 1. 00 = Greatly, 2. 00 = Moderately, 3. 00 = Little, 4. 00 = Not
at all -- 2. 52 falls just about half way between "Moderately" and
"Little".

TABLE 49

COMPARISON OF PRINCIPAL AND STAFF RESPONSES
TO PROGRAM OBJECTIVES QUESTIONS

Question	According to Teachers	Principals
To what extent have the objectives been discussed with the staff?	2.48	2.00
To what extent is the staff knowledgeable about them?	2.45	1.00
To what extent do they apply these in their work?	2.33	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	2.50	2.00
Develop inquiring mind	2.14	1.00
Develop self-discipline	1.97	2.00
Develop self-initiative	1.97	1.00
Develop resourcefulness	2.17	1.00
Develop self-evaluation skills	2.68	2.00
Develop research skills	2.43	1.00
Provide for individual differences	2.03	2.00
Free the teacher's time	2.79	1.00

Staff Leadership. To indicate the extent to which leadership
emanated from various staff members, in the "Leadership" section
of the data-collection instrument, teachers were asked to respond on

a "Greatly" to "Not at all" scale. For this entire study the number of "Greatly"'s in this section was .85 per teacher. At School F it was .76. The mean number of "Moderately"'s in this section was 1.28, while at School F it was 1.41.

Table 50 shows that teachers found leadership emanating to a moderate extent from the department chairmen and from the principal.

TABLE 50

SOURCES OF PROGRAM LEADERSHIP

| Source | According to | | |
	Principal	Teachers	All Adms.
Principal	1.00	2.29	1.00
A. D.	4.00	3.75	4.00
Other administrators	2.00	3.38	3.00
Department chairmen	1.00	2.27	1.33
A specific teacher	2.00	3.16	2.33
A specific group of teachers	4.00	2.65	3.33

General Organization for Instruction. This school has 24 modules of 15 minutes each plus 92 minutes passing time each day and is programed on a five-day cycle. Large-group and small-group instruction are used and the amount of each tends to vary from ability level to ability level but differs little between grade levels.

About 80 per cent of the staff is involved to some extent in team teaching. The typical teacher has no specific class or supervision assignment during about 37 per cent of the regular school day.

Independent Study Program Organization. All students are provided with independent study time. Fifty-nine per cent of the sample indicated that they had 35 per cent or more of their school day unscheduled. Thirty-five per cent reported from 20 to 30 per cent unscheduled while 6 per cent indicated less than 20 per cent free time. The tendency of the more-able students to enroll in more classes reduces the I.S. time available to them. However, although the less-able students tend to take fewer classes, these classes are frequently scheduled for longer periods of time, reducing the amount of I.S. time to these students to only slightly more than that of the more-able students.

Independent study privileges are sometimes restricted for disciplinary reasons, poor achievement record, or, occasionally, on parental request. A detention room, supervised by an aide, is maintained. Assignment to this area is usually for a specific period of time. Some effort is made to avoid assigning to students very large blocks of I.S. time.

Students do not have to report to a particular place during I.S. and they can move between study areas at any time as long as their

movement does not interfere with classes that are in session. They are expected to remain on campus from the time of their first class until 1:30 p.m. or until their last class is completed. This policy is not rigidly enforced.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the settings in which they gave independent study assignments to students.

Table 51 indicates that the traditional-size class is most heavily used, but that the small group is also used to a moderate extent.

TABLE 51

PERCENTAGE OF I.S. ACTIVITIES ORIGINATING
IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	19
Small group	23
Traditional size	34
One-to-one	12
Other	9

Students were asked how they spent their I.S. time and teachers were asked how they thought that students spent their time. The responses (Table 52) give some indication of the extent to which a student's I.S. time is teacher dominated.

TABLE 52

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of Time Spent According to	
	Students	Teachers
Doing specific teacher-given assignments	27	33
Doing general teacher-given assignments (student makes a choice)	15	13
Studying what the student wants	14	13

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during independent study time.

Table 53 indicates that grades were most important. Pressure from other students, and being observed by staff members were least important.

TABLE 53

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	1.99
Other teacher pressure	2.92
Own interest in work	2.22
Being observed	3.23
Other students	3.33
Parents	2.43

Teachers indicated that they made a moderate (2.10) effort to build into classroom activities factors designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate student interest, 61 per cent of the staff listed one such technique, 35 per cent listed two, and 10 per cent listed three. None listed as many as four. The teachers also reported that they relied upon grades (2.21) and student self-interest (1.85) moderately as means of stimulating student interest.

Students (3.27) and teachers (3.17) agreed that students are only required a little to discuss I.S. activities individually with their teachers.

The student council has spent some time talking about control problems and objectives of the I.S. program, but the council has taken no action. Other than this, and detention for some students, no particular techniques are employed at the program level to stimulate student interest in I.S.

Preparation of Students. Feeder schools, in the opinion of the high school staff, do little to prepare students to participate effectively in the I.S. program. The principal reports that no special preparation is provided in the elementary schools. Teachers agree that there is little (3.21) evidence of preparation.

No pre-school orientation program is provided, but all students have two modules per week of group guidance. In these group sessions, the first part of the school year is spent on orientation. In addition all students spend 10 minutes each day in an administration period, some of which is devoted to discussion of the program.

No special program, other than detention, is provided for students who are not operating effectively in the program, but they are given some help as a regular part of the guidance program.

Students report that from moderate to little (2.52) class time has been devoted to discussing the I.S. program, but that teachers, collectively, provide moderate (2.02) help. Students had a moderate (2.19) understanding of the program before they entered the school. They received little (2.70) help from other students.

Supervision of Students. Students are not required to be in any particular place during unscheduled time. There is a relaxation area open to them in the cafeteria. In this area, snacks are served during lunch and for one hour in the morning. The school grounds are also available to the students, and the weather frequently allows use of these grounds.

Supervision in the study areas other than the library is provided by aides. The librarian provides the supervision in the library.

The principal and the students both identify aides as providing the greatest amount of supervision. However, the students believe they get less supervision than the principal thinks they are getting (Table 54).

TABLE 54

SOURCE OF STUDENT SUPERVISION DURING I.S.

Source	According to	
	Principal	Students
Teachers	3.00	2.82
Other adults	1.00	2.65
Other students	4.00	3.46

Physical Facilities. School F was designed and built two years ago to house a modular program.

The library seats about 72 students at tables and has a collection of about 4,000 volumes for a student body of about 1,020. The carpeted reading room, open from 7:30 a.m. to 4:00 p.m., is pleasant.

A humanities center, which seats about 100 students at tables, is the largest I.S. area. It is a large room, bare but pleasant, open throughout the school day. It is supervised by two half-time aides.

The math-industrial arts study center is in the drafting room. It seats 58 at drafting tables. It is open every afternoon and all day

Friday. Both study centers were quiet inside except for substantial noise entering through open windows which face the interior courtyard of the school.

The cafeteria is one of two relaxation areas open to students at all times. It seats about 250 students. Snacks are served at lunch time and for one hour in the morning.

The school consists of separate buildings arranged in a U formation with the gymnasium at the open end. In the center is a large concrete courtyard available to students at all times. Although it provides a roomy outdoor space for students, the noise which results from its use is a distraction both to classrooms and to I.S. areas which are housed around it.

Lab facilities, which are at least minimally adequate, are available in most laboratory instruction areas, but most of them are available to I.S. students for only a portion of the time. Several are open whenever space is available, even when classes are in session. However, several are not open when classes are in session, and teachers are not available to supervise open labs in some areas. The industrial arts labs, with the exception of the drawing room described earlier, are open while classes are in session, but teachers are not available to supervise these labs.

About two-thirds of the staff have some kind of office space available to them, and the rest have a home-base classroom. A combination faculty room-workroom is also provided for teachers.

Material and Human Resources. Only about half of the printed materials normally found in a school of this size are found in School F's library. This lack probably results from the newness of the school. Both study centers are also very limited in available materials. The humanities center has a limited collection of texts and references. The math-industrial arts center has 15 to 20 reference books in each of the two subject areas. No AV materials are used in connection with the I.S. program.

The materials seem to be readily available to students. There are open shelves in most areas and the checkout procedure seems satisfactory.

Materials for the study centers are selected primarily by teachers and department chairmen (see Table 55).

The library and the study centers operate independently of one another; the library is controlled by the librarian and the study centers by the department chairmen. No effort to coordinate these facilities was apparent.

TABLE 55

PERSONNEL WHO SELECT MATERIALS FOR STUDY
AREAS OTHER THAN THE LIBRARY

Personnel	According to	
	Teachers	Principal
Building administration	3.33	2.00
Department chairmen	1.69	1.00
Teachers	1.48	1.00
Students	3.45	3.00
Librarian	2.48	2.00
Non-certified personnel	3.86	4.00
District personnel	3.52	3.00

Table 56 indicates that students make little use either of teachers
from whom they are not taking classes or of outside resource people.

Students reported that their own teachers were less than
moderately (2.35) available to them and that the students voluntarily
spent little (2.92) time with these teachers. Students also indicated
that teachers made very little (3.27) effort to require them to discuss
I.S. work individually.

Evaluation. Several planned techniques have been used to evaluate
the effectiveness of the total school program, including independent
study. A control school has been used for comparison of achievement
test results. School F's scores are slightly higher than those of the

control school, but the difference is not statistically significant. Opinion-
naires were developed and administered to both students and staff
members.

TABLE 56

STUDENT USE OF RESOURCE PEOPLE

Question	According to		
	Students	Teachers	Principal
To what extent are students encouraged to use other teachers?	2.95	2.45	2.00
To what extent do they use other teachers?	3.08	2.89	2.00
To what extent are students encouraged to use outside resource people?	3.07	2.86	3.00
To what extent do they use outside resources?	3.03	3.17	3.00

The principal reports that a moderate effort is made by depart-
ment chairmen and administrators to evaluate teacher effectiveness in
the program. Teachers believe that very little (3.52) staff evaluation
is conducted.

Both teachers and administrators believe that little effort is
made to aid students in evaluating their own progress in terms of
either short-range or long-range objectives. To the extent that this

is done, it is done through the regular guidance program and through normal student-teacher contact.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 57. Although the principal believes most of the activities listed on the questionnaire have been used, the staff reports that little to very little attention has been given to the in-service program.

TABLE 57

IN-SERVICE ACTIVITIES USED TO IMPROVE
INDEPENDENT STUDY PROGRAM

Activity	According to	
	Teachers	Principal
Regular faculty meeting	3.04	2.00
Special meetings during the school year	3.07	2.00
Extended contracts	3.52	4.00
Individual conferences	3.11	2.00
University workshops	3.59	2.00
Use of resource people	3.23	3.00
Special assistance to new teachers	3.44	2.00
Printed materials - commercial	3.29	3.00
Printed materials - staff devised	3.19	2.00
Assistance from other teachers	2.56	1.00

Other Information. Although the present school building is only two years old, most of the staff has been together for four years. In the two years preceding the opening of this building, they operated the school in makeshift quarters.

Also of some importance in evaluating the data from this school is consideration of the attitude of the staff during the three days during which the data were collected. The night before the arrival of the investigator, the chairman of the school board was recalled after a long, emotional recall campaign. The high school staff and the local professional education association had actively supported the chairman.

<div align="center">School G</div>

The School

School G has an enrollment of about 2, 300 sophomores, juniors, and seniors and is one of four high schools in a community which provides most of the public and commercial services for a wide geographic area. The primary sources of employment are tourism and gambling enterprises, supplemented by a military installation and missile and atomic test centers. The educational level of adults follows a bi-modal distribution, with above average percentages both of college-educated and of less-than-high-school-educated adults.

No follow-up data on school graduates was obtained, but a review of the aptitude test scores indicated a distribution approximating the normal curve.

The independent study program, wnich has been in operation for two years in this school, was placed in the less successful category by the panel of experts.

The Program

Program Objectives. Students in School G reported that teachers have spent little time (2.73)[1] talking to them about the objectives of the independent study program. They see the most important objectives of the program as learning to do things on their own (1.48) and having time to do teacher-given assignments (1.57).

The administrative director (A. D.) said that the objectives were in writing in the handbook, although in rather general form, for the use of both the students and the staff. Seventy per cent of the staff reported that the objectives were in writing; 50 per cent had a copy.

Table 58 indicates that the A. D. and the staff are in almost exact agreement as to the understanding of program objectives and as to the extent to which they apply this knowledge.

---

[1]1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 2.73 falls between "Moderately" and "Little" but closer to "Little".

TABLE 58

COMPARISON OF A. D. AND STAFF RESPONSES
TO PROGRAM OBJECTIVES QUESTIONS

Questions	According to	
	Teachers	A. D.
To what extent have the objectives been discussed with the staff?	2.32	1.00
To what extent is the staff knowledgeable about them?	2.00	2.00
To what extent do they apply these in their work?	2.09	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	2.10	3.00
Develop inquiring mind	1.85	1.00
Develop self-discipline	1.60	2.00
Develop self-initiative	1.59	1.00
Develop resourcefulness	1.85	2.00
Develop self-evaluation skills	2.44	3.00
Develop research skills	2.04	1.00
Provide for individual differences	1.84	2.00
Free the teacher's time	2.50	2.00

Staff Leadership. To indicate the extent to which leadership

emanated from various staff members, in the "Leadership" section of

the data-collection instrument, teachers were asked to respond on a

"Greatly" to "Not at all" scale. For the entire study the mean number

of "Greatly"s in this section was .85 per teacher. At School G it was

.81. The mean number of "Moderately"s in this section was 1.28,

while at School G it was 1.26.

Table 59 indicates that teachers find leadership emanating to a

moderate extent from the principal and from department chairmen.

TABLE 59

SOURCES OF PROGRAM LEADERSHIP

Source	A.D.	According to Teachers	Administrators
Principal	1.00	2.09	1.00
A.D.	4.00	2.89	3.00
Other administrators	2.00	2.75	3.00
Department chairmen	2.00	2.25	2.00
A specific teacher	2.00	3.29	2.00
A specific group of teachers	4.00	2.82	2.75

Several staff members, during personal interviews, remarked

that the administrative staff was very autocratic. Two department

chairmen, in separate interviews, commented that recommendations

from the chairmen had little effect because the administrators did

what they wanted to do anyway. Several teachers volunteered that

they had no opportunity to help establish policy for the I.S. program.

General Organization for Instruction. School G employs 14
modules of 25 minutes each, plus 65 minutes passing time each day.
The school is programed on a five-day cycle. Large-group and small-
group instruction are used. Between grade levels, there is little
difference in the amounts of small-group and large-group activity.
Less-able students typically have less large-group activity than do
the more-able students.

About 15 per cent of the instructional program is organized for
team teaching. The typical teacher has no specific class or super-
vision assignment during about 19 per cent of the school day.

Independent Study Program Organization. All students are
provided with independent study time. Fifty per cent of the sample
indicated that they had 35 per cent or more of their school day
unscheduled. Forty-two per cent reported from 20 to 30 per cent
of their time unscheduled while 8 per cent indicated less than 20 per
cent free time. Because of the tendency of less-able students to
take fewer classes than more-able students, they have more I.S.
time than more-able students. Some effort is made to avoid giving
students large blocks of uninterrupted I.S. time.

I.S. time is not restricted for any reason. No loss of time
results from low achievement or misconduct.

Students do not have to report to a particular place during I. S.; they can go anywhere on the campus at any time. Although a closed campus policy exists, this policy is not enforced.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the settings in which they gave independent study assignments to students. Table 60 indicates heavy use of the large group and of the traditional-size class, with very little use of the one-to-one situation.

TABLE 60

PERCENTAGE OF I.S. ACTIVITIES ORIGINATING
IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	38
Small group	20
Traditional size	33
One-to-one	7
Other	3

Students were asked how they spent their I. S. time and teachers were asked how they thought students spent their time. The responses (in Table 61) give some indication of the extent to which a student's I. S. time is teacher dominated.

TABLE 61

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of Time Spent According to	
	Students	Teachers
Doing specific teacher-given assignments	25	29
Doing general teacher-given assignments (student makes a choice)	14	13
Studying what the student wants	16	10

Motivation Techniques. Students were asked to indicate to what
extent certain pressures influenced their choice of activities during
independent study time. Table 62 indicates that grades, the student's
own interest in the work, and pressure from parents were most
important. Pressure from other students was least important.

TABLE 62

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	1.91
Other teacher pressure	2.83
Own interest in work	2.14
Being observed	3.13
Other students	3.35
Parents	2.28

Teachers indicated that they made a moderate (1.81) effort to build into the classroom activities factors designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate student interest, 53 per cent of the teachers listed one such technique. Forty per cent listed two, 23 per cent listed three, and 13 per cent listed four. The teachers also reported that they relied upon grades (1.95) and student self-interest (2.03) moderately as means of stimulating student interest.

Students (3.38) and teachers (3.26) agreed that students are required only to a very limited extent to discuss I.S. activities individually with their teachers.

The A.D. reported that student I.S. projects were displayed at social studies and science fairs. The student council has had no involvement with the I.S. program.

Preparation of Students. Feeder schools, in the opinion of the high school staff, do little to prepare students to participate effectively in the I.S. program. The A.D. reports that no special preparation program is provided in the junior highs. Teachers agree that there is very little (3.07) evidence of preparation.

Counselors from the high school visit the junior highs, and a one-day orientation program, of which an explanation of the I.S. program is a part, is conducted for incoming sophomores at the high school.

No special program is provided for students who are not operating effectively in the program, but they are given attention as a regular part of the guidance program.

Students report that little (2.73) class time has been devoted to discussing the I.S. program, but that the teachers, collectively, provide moderate (2.05) help. Students had a moderate (2.16) understanding of the I.S. program before they entered the school. They receive little (2.72) help from other students.

Supervision of Students. The only restriction on student movement during independent study is the closed campus policy, which the students and teachers report is not enforced. The cafeteria is open at all times as a relaxation area, as are the school grounds.

Supervision in all study areas is provided by teachers. The cafeteria, which receives heavy use, is unsupervised. A uniformed police officer is employed by the school district and is on duty on the grounds at all times.

Since aides are not used in this school, the responses in Table 63, which show the teachers as the primary source of supervision, are as expected.

Physical Facilities. School G was originally designed for a traditional program, but does have one moveable-wall classroom

complex. Two portable classrooms which can handle large groups have also been provided.

TABLE 63

SOURCE OF STUDENT SUPERVISION DURING I.S.

Source	According to	
	A. D.	Students
Teachers	1.00	2.58
Other adults	4.00	3.17
Other students	4.00	3.35

The largest single I.S. facility, the library, seats about 155 students at tables. The library receives heavy use and is open to students at any time during the school day. Both the collection and the facilities are traditional.

Four resource centers are available to students -- English, social studies, math and science, and foreign language. The English and the social studies centers each consist of two classrooms with a door between.

In neither center is the second room much used. Both centers are equipped with student desks, tables, and chairs. Each room will seat approximately 35 students. The math-science center, housed in a standard classroom, will also accommodate about 35 students.

The foreign language center will seat about 15. All of the centers resemble other classrooms in the building.

The cafeteria is an outdoor facility, roofed, and open on two sides. It seats about 250 at wooden tables and benches which are badly nicked and gouged. Snacks are available from machines. The area is unsupervised and is noisy and dirty.

A pleasant, grassy, quadrangle is located in the center of the campus. There is no other seating, but the climate permits year-round sitting on the grass. Although it is a large area, very few students were observed using it.

Adequate laboratory facilities exist in most laboratory instruction areas, but receive little use in the I.S. program. Some staff members do not believe in the open-lab principle, and some will not allow I.S. students in the labs while scheduled labs are in session. In a few cases teachers are not available for su_ervision.

There are several teacher work areas and lounging areas in the building. About 15 staff members have desks in these lounge areas; the remainder use classrooms as home bases.

Material and Human Resources. The collection of printed materials in the library appears to be adequate. The library boasts a superior state history collection. The study centers, other than the foreign language center have good paperback collections, a few

periodicals, and a few reference books. The foreign language center

has only a few books.

AV materials are used very little in connection with the I.S.

program. There is a tape recorder in the social studies center and

a record player and tape recorder in the foreign language center. AV

materials are handled by each department, rather than through a

central source. The foreign language department has a good collection

of records and tapes. There are about 200 filmstrips in the school

and a few other tapes and records.

Printed materials in the library are on open shelves and may

be checked out. The study-center materials, also on open shelves,

can not be checked out. Arrangements for use of AV materials are

made with individual teachers in the departments, and equipment

is available in the AV center.

Teachers report that materials for the study centers are

selected primarily by themselves and department chairmen (see

Table 64).

The librarian reported that he is assigned the responsibility for

the operation of the resource centers; but that the centers, in fact,

operate at the direction of the various departments. Time does not

permit him to do more than place orders for materials as requested

by the departments.

TABLE 64

PERSONNEL WHO SELECT MATERIALS FOR STUDY
AREAS OTHER THAN THE LIBRARY

Personnel	According to Teachers	A.D.
Building administration	2.65	2.00
Department chairmen	1.87	1.00
Teachers	1.79	2.00
Students	3.08	2.00
Librarian	2.24	1.00
Non-certified personnel	3.66	4.00
District personnel	3.28	4.00

Table 65 indicates that students and teachers agree that students make little use of teachers from whom they are not taking classes. The A.D. stated that great encouragement was given students to make use of these teachers, and that, because the program requires these teachers to be on duty in the study centers, the students did make moderate use of them.

Students reported that their own teachers were moderately (2.15) available to them, but that students voluntarily spent little (2.82) time with these teachers. They also indicated that teachers made very little (3.38) effort to require them to discuss I.S. work individually.

TABLE 65

STUDENT USE OF RESOURCE PEOPLE

Question	According to		
	Students	Teachers	A. D.
To what extent are students encouraged to use other teachers?	2.92	2.67	1.00
To what extent do they use other teachers?	3.03	2.89	2.00
To what extent are students encouraged to use outside resource people?	3.11	2.79	2.00
To what extent do they use outside resources?	3.04	2.89	2.00

Evaluation. Students, teachers, and parents have been surveyed about the total program, with some questions directed specifically to the independent study portion of it. No analysis of test scores has been done, and no follow-up with graduates has been done.

The A. D. reports that a moderate effort is made by the administration to evaluate the effectiveness of teachers in the program, but teachers feel that very little (3.42) evaluation is made of the staff.

Teachers believe that little (2.94) effort is made to aid students in evaluating their own progress in terms of either short-range or long-range objectives. To the extent that this is done, it is done through the regular guidance program and through normal student-teacher contact.

Staff In-Service Activities. The extent to which various kinds of
in-service activity have been used may be seen in Table 66. The
teachers apparently believe that little attention has been given to the
I.S. program.

TABLE 66

IN-SERVICE ACTIVITIES USED TO IMPROVE
INDEPENDENT STUDY PROGRAM

Activity	According to Teachers	A. D.
Regular faculty meeting	2.83	3.00
Special meetings during the school year	2.64	3.00
Extended contracts	3.52	4.00
Individual conferences	3.26	1.00
University workshops	3.10	2.00
Use of resource people	2.83	2.00
Special assistance to new teachers	3.22	1.00
Printed materials - commercial	2.93	2.00
Printed materials - staff devised	3.00	3.00
Assistance from other teachers	2.62	2.00

Other Information. It was extremely difficult to get accurate
information from the administrators in this school. Rather than
provide accurate appraisals, these administrators tended to provide
answers which might enhance the image of the school in the eyes of

the investigator. On several occasions data were received from
administrators which were in conflict both with the researcher's
observations and interview data from teachers.

This school has also had some financial difficulties. Earlier
this year aides were employed, primarily as clerical aides for
teachers. Because of financial problems, the aides were released.
The school was also told to cut several teachers from its staff be-
cause of decreased enrollment. However, the teachers worked out an
arrangement whereby regular staff members did all substituting
rather than hire outside substitutes. Only by this means was the
school able to retain the full teaching staff.

School H

The School

School H is the only high school in a suburban community which
is almost entirely residential. It serves a student body of about 830
ninth-graders through twelfth-graders. About 20 per cent of the parents
live in homes which are valued at over $20,000, with the remainder
living in medium-priced tracts or subdivisions. Nineteen per cent of
the fathers have not completed high school; 22 per cent have completed
high school; 40 per cent have attended college; an additional 17 per cent

are college graduates. Fourteen per cent are professional people; 15 per cent are in business or management; 16 per cent are in the military, and the remainder are divided among a wide range of occupational areas.

Sixty-five per cent of the school's graduates go on to some kind of advanced education. Of those who do not, the most popular occupations are in service, sales, and clerical fields.

The independent study program in this school was placed in the successful category by the panel of experts. It should be noted that although the definitions in this study specify that an independent study program must have been in operation for two years, this one has only been in operation for one year. Last year some experimentation was done with I.S., but the full program was launched only this year. However, since the I.S. program was functioning so well, in the opinion of the researcher, and since the panel of experts placed it in the successful category, it has been included in this study.

The Program

Program Objectives. Students in School H reported that teachers have spent from moderately to little (2.64)[1] time talking to

---

[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not at all -- 2.64 falls almost half way between "Moderately" and "Little".

them about the objectives of the independent study program. They see

the highest ranking objectives as having time to do teacher-given

assignments (1.46) and learning to do things on their own (1.49).

The principal and 88 per cent of the staff indicate that the

objectives are in writing. Eighty-four per cent of the teachers have

their own copy of these objectives.

Table 67 indicates that the principal and staff are quite close to

agreement on the identification of the objectives which have received

the greatest attention.

TABLE 67

COMPARISON OF PRINCIPAL AND STAFF RESPONSES
TO PROGRAM OBJECTIVES QUESTIONS

| Question | According to | |
	Teachers	Principal
To what extent have the objectives been discussed with the staff?	1.52	1.00
To what extent is the staff knowledgeable about them?	1.60	2.00
To what extent do they apply these in their work?	1.76	2.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	1.72	2.00
Develop inquiring mind	1.40	2.00
Develop self-discipline	1.32	1.00
Develop self-initiative	1.28	1.00
Develop resourcefulness	1.44	1.00
Develop self-evaluation skills	2.00	2.00
Develop resource skills	1.68	2.00
Provide for individual differences	1.28	1.00
Free the teacher's time	2.38	4.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to respond on a "Greatly" to "Not at all" scale. For the entire study the mean number of "Greatly"s in this section was .85 per teacher. At School H it was 1.56. The mean number of "Moderately"s was 1.28, while at School H it was 1.12.

Table 68 indicates that teachers find leadership emanating to a great extent from the principal, moderately from the department chairmen and little from any other source.

TABLE 68

SOURCES OF PROGRAM LEADERSHIP

Source	According to	
	Principal	Teachers
Principal	1.00	1.16
A. D.	4.00	3.11
Other administrators	4.00	2.83
Department chairmen	2.00	2.04
A specific teacher	4.00	2.82
A specific group of teachers	2.00	2.82

General Organization for Instruction. This school was 14 modules of 25 minutes plus 26 minutes passing time each day. It is programed on a five-day cycle. Large-group and small-group instruction are used extensively.

All subjects, where more than one teacher is involved, are organized for team teaching. The typical teacher has no specific class or supervision assignment during about one-half of the regular school day.

Independent Study Program Organization. At the beginning of the year all students were scheduled for some independent study time. About 2 per cent have lost this privilege. Forty-six per cent of the sample indicated that they had 35 per cent or more of their school day unscheduled and 46 per cent more reported that they had between 20 and 30 per cent unscheduled. Eight per cent reported less than 20 per cent free time. The amount of I.S. time each student has differs by grade level, ranging from about 15 per cent for freshmen to 33 per cent for seniors. Some effort is made to avoid scheduling students for large blocks of I.S. time.

There are two kinds of independent study in this school. One of these is unscheduled class time, which 98 per cent of the students have. The other is a contractual arrangement with individual teachers.

For some courses, certain satisfactory performance criteria are established. As soon as a student meets these criteria, he may take another class or contract to do enrichment work in that subject. In some classes students are pretested and, depending on their test scores, released from some portions of the regular class work to do enrichment work. About 40 students are presently involved in this system and the number is increasing as teachers complete preparation of the necessary organization and tests for their classes.

I.S. time is restricted because of either disciplinary or achievement records. The student is usually first referred to the administration by a teacher. The student then signs a contract which spells out achievement and conduct expectations. At that time he is also placed on the "hot list", which means that his achievement, conduct, and attendance will be carefully checked for a specified period of time. If he fails to live up to his contract, in lieu of I.S. time, he is then assigned to "the cooler", a detention supervised by a retired naval officer, until such time as his teachers report that he is performing satisfactorily. At the time of the observations for this study, 32 students were assigned to "the cooler".

Students are allowed to enter and leave study areas only between modules and a closed campus is maintained. Both of these regulations are enforced. Some areas of the halls and grounds are restricted.

This policy, too, is enforced, but not as rigidly as are the other regulations.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the setting in which they gave independent study assignments to students. Table 69 indicates heavy use of the large group and little use of the traditional classroom.

TABLE 69

PERCENTAGE OF I.S. ACTIVITIES ORIGINATING
IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	40
Small group	25
Traditional size	14
One-to-one	16
Other	5

Students were asked how they spent their I.S. time and teachers were asked how they thought students spent their time. The responses (see Table 70) give some indication of the extent to which a student's I.S. time is teacher dominated.

TABLE 70

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of Time Spent According to	
	Students	Teachers
Doing specific teacher-given assignments	28	42
Doing general teacher-given assignments (student makes a choice)	17	15
Studying what the student wants	18	14

Motivation Techniques. Students were asked to indicate to what

extent certain pressures influenced their choice of activities during

independent study time. Table 71 indicates that grades and the

student's own interest in the work were most important. Pressure

from other students was least important.

TABLE 71

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	1.79
Other teacher pressure	2.74
Own interest in work	2.08
Being observed	2.92
Other students	3.34
Parents	2.34

Teachers indicated that they made more than a moderate (1.61) effort to build into classroom activities factors designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate student interest, 79 per cent of the teachers listed one such technique, 63 per cent listed two, 38 per cent listed three, and 17 per cent listed four. They also reported that they relied upon grades less than moderately (2.43) and student self-interest more than moderately (1.75) as means of stimulating student interest.

Students (3.06) and teachers (3.04) agreed that students are required only to a limited extent to discuss I.S. activities individually with their teachers.

A number of other techniques are used in the school to stimulate I.S. interest. Student work is exhibited. Commendations are given to individual students in the bulletin, over the public address system, and in personal letters from the principal. A scholar of the month is named. The student council conducts assemblies and seminars having to do with the I.S. program and provides feedback to the staff.

Preparation of Students. The one feeder school, in the opinion of the principal, does a moderate job of preparing students to participate effectively in the I.S. program. Staff members see very little (3.83) evidence of this.

A key factor in the orientation of students to the high school program are the counselors. These counselors are regularly assigned to work with all students in grades one through twelve. So counselors who know the high school program are working throughout the school year with students and staff in the feeder school. In addition, a half-day formal orientation is conducted at the high school. This is followed up by home-room and small-group teachers. Printed materials describing the program are distributed to students and parents, and coffees and individual conferences are held with parents. Teachers report that they spend a moderate (2.15) amount of time on the I.S. program.

Students who are not operating effectively in the program are helped by teachers, counselors, and administrators. The formal referral system used in connection with "the cooler" stimulates both teacher and administrator involvement with these students. A group of counselor trainees from a local college are also involved in a special program with these students.

Students report that from moderate to little (2.64) class time has been devoted to discussing the I.S. program, but that teachers, collectively, provide more than moderate (1.77) help. The students had less than a moderate (2.38) understanding of the program before

they entered the school. They received little (2.75) help from other students.

Supervision of Students. Students do not have to be in any particular place during unscheduled time. They have a semi-relaxation area open to them in the outdoor cafeteria. Although it is not strongly enforced, a policy exists that students should study while there. Supervision is provided by walk-throughs, primarily by administrators.

Supervision in other study areas is provided by both teachers and aides. Para-professionals aid the librarian in the library. Teachers are usually available in the study centers, but here, too, they are supplemented by para-professionals and student teachers.

The principal and the students agree that about equal supervision comes from teachers and aides (see Table 72).

TABLE 72

SOURCE OF STUDENT SUPERVISION DURING I.S.

| Source | According to | |
	Principal	Students
Teachers	2.00	2.70
Other adults	2.00	2.83
Other students	3.00	3.05

Teachers estimated that 20 per cent of their non-instructional time was used for supervision.

Physical Facilities. School H was originally designed for a traditional program and has been adapted to the modular program.

The most frequently utilized center for I.S. is the library, which seats about 130. It has 16 carrels, lounge furniture for about 20, 2 conference rooms, an AV room, an equipment room, and a listening room. It is a quiet, pleasant facility, supervised by the librarian, by a para-professional, and by a secretary.

There are study centers for math, English, social studies and reading, each of which seats from 15 to 20 students at tables or student desks. Each has an outside entrance and a doorway to an adjoining classroom. These centers are small and plain in appearance.

The cafeteria, an unroofed concrete area in front of the gymnasium, is available to students at all times. It seats about 150 at tables.

Adequate laboratory facilities are available in most laboratory instruction areas. Laboratories are conducted as completely open labs during one-third to one-half of the school day. During most other hours labs are open to "reliable" students if there is room, even when classes are in session.

Teachers, for the most part, use classrooms as their offices.

Material and Human Resources. The collection of printed

materials in the library appears to be good. Since the inception of the

I.S. program, emphasis has been put on increasing the number of

periodicals and the number of book titles. Study centers have poor

supplies of materials. The exceptions to this are the available

periodicals in the social studies center and programed materials in

the math center.

All AV materials and equipment are available to students in the

library. The collection in the school is minimal, but students and

teachers have access to a county AV center, which the librarian

reports is used by both. Within the school, all large-group

presentations are taped, textbooks are taped for slow readers, and

book reviews are recorded on a voicewriter.

All materials are readily accessible to students, both in the

library and in the centers. AV listening and viewing facilities are

conveniently arranged in the library. It should be noted that School

H operates more on an I.M.C. concept than they do on the separate

resource center concept. The large, functionally arranged library

can satisfy most student I.S. needs. As money becomes available,

the school plans to expand the study center collections and encourage

their heavier use.

According to the teachers, department chairmen, the librarian, and the teachers all have a strong hand in selecting materials for the study centers (see Table 73).

TABLE 73

PERSONNEL WHO SELECT MATERIALS FOR STUDY
AREAS OTHER THAN THE LIBRARY

| Personnel | According to | |
	Teachers	Principal
Building administration	2.39	1.00
Department chairmen	1.44	1.00
Teachers	1.54	1.00
Students	2.58	2.00
Librarian	1.72	1.00
Non-certified personnel	3.22	3.00
District personnel	2.82	2.00

Table 74 indicates that teachers and the principal believe that a little more effort has been made to encourage students to use other teachers and outside resource people than do the students.

Students reported that their own teachers were moderately (1.96) available to them and that the students voluntarily spent more than a little (2.73) time with these teachers. The students also indicated that teachers made little (3.06) effort to require them to discuss I.S. work individually.

TABLE 74

STUDENT USE OF RESOURCE PEOPLE

| | | According to | |
Question	Students	Teachers	Principal
To what extent are students encouraged to use other teachers?	2.59	2.16	2.00
To what extent do they use other teachers?	2.89	2.64	2.00
To what extent are students encouraged to use outside resource people?	2.88	2.36	2.00
To what extent do they use outside resources?	2.98	2.75	2.00

Special note needs to be made of the use of the para-professionals in this school. The library para-professional circulates among students to make them more aware of materials that might help them with their current I.S. interests. An ex-teacher-administrator, who himself works as a para-professional, handles the administration of the para-professional program.

Evaluation. A comprehensive evaluation plan is outlined for the total school program, but since the program is in its first full year of operation, much of the planned evaluation has not yet been carried out. The full evaluation will include student, teacher, and parent surveys; analysis of cost, dropout, attendance, and achievement

records; and analysis of student performance in relation to specific objectives of the program. Student and teacher surveys have been conducted. Records on the use of materials and facilities have been kept and reviewed. Some feedback has been received from college students who participated in the pilot project last year.

According to the principal, a moderate effort is made to evaluate teacher effectiveness in the program by subjective, administrative evaluation. Teachers believe that less than a moderate (2.42) effort is made to evaluate their effectiveness.

Teachers and the principal feel that a moderate effort is made to aid students in evaluating their own progress in terms of both short-range and long-range objectives. This effort is made by all staff members in both student and teacher initiated conferences. Attention is also given in home-room and small-group situations to aiding students in evaluating their progress.

Staff In-Service Activities. The extent to which various kinds of in-service activities have been used may be seen in Table 75. Responses from teachers indicate that most of the activities listed have been used to a moderate extent.

TABLE 75

IN-SERVICE ACTIVITIES USED TO IMPROVE
INDEPENDENT STUDY PROGRAM

Activity	According to	
	Teachers	Principal
Regular faculty meeting	2.16	2.00
Special meetings during the school year	2.48	2.00
Extended contracts	3.52	4.00
Individual conferences	2.20	2.00
University workshops	2.79	4.00
Use of resource people	2.00	2.00
Special assistance to new teachers	2.32	2.00
Printed materials - commercial	2.48	2.00
Printed materials - staff devised	1.92	1.00
Assistance from other teachers	2.13	2.00

Other Information. One full year was spent in discussing

objectives, designing the program, and preparing and testing pilot

projects in most aspects of the total program. The program was

implemented in full the following year.

Apparently, great effort has been made to offer an individual

program to students. The pre-testing and contractual system was

mentioned in the "Independent Study Program Organization" section.

Twenty-three separate English classes exist, and students are placed

on a non-graded basis. Physical education classes are designed for the physically gifted as well as for the less gifted.

School I

The School

School I has an enrollment of about 1,250 ninth-graders through twelfth-graders. It is the only high school in a suburban district. Although it is contained almost entirely within a city limits it is not a part of the school system of that city. The principal rates the community as "definitely upper-middle class", with a higher than average percentage of managerial and professional people.

About 65 per cent of the graduates go on to some kind of advanced training. Until about two years ago this percentage was about 80. New housing additions being constructed in this district are less costly than the existing housing, and more of the students from these new homes are non-college oriented.

The independent study program, which has been in operation for three years in this school, was originally placed in the successful category, although marginally, by the panel of experts. On the basis of three days of observation and after the data had been tabulated, the program was reclassified as less successful. The

ranking was first questioned during the observation time when students

could not be found in the quantities expected in the various study areas.

Because there was an open-campus policy in this school, it was

difficult to ascertain where the students were. Data from the student

questionnaires showed that students admit to spending an average of

33 per cent of their independent study time "goofing off". It was upon

tabulation of this data that the school was moved to the lower category.

The average for all successful programs in the study was 17 per cent,

for less successful programs, 29 per cent.

Program Objectives. Students in School I reported that teachers

have spent little (3.02)[1] time talking to them about the objectives of

the independent study program. They see the highest ranking objective

as learning to do things on their own (1.68).

The principal explained that objectives for the I.S. program

were in writing, but that these objectives were written by each depart-

ment for their own use. Sixty-seven per cent of the staff reported that

objectives were in writing; 51 per cent reported they had their own copy.

The principal believes that great effort has been made to discuss

the objectives of the program with the staff, and that as a result, the

---

[1] 1.00 = Greatly, 2.00 = Moderately, 3.00 = Little, 4.00 = Not
at all -- 3.02 falls almost exactly on "Little".

staff has a strong understanding. Teachers, however, report that less than a moderate effort has been made to discuss program objectives. They report the staff's understanding to be only moderate.

TABLE 76

COMPARISON OF PRINCIPAL AND STAFF RESPONSES
TO PROGRAM OBJECTIVES QUESTIONS

Question	According to	
	Teachers	Principal
To what extent have the objectives been discussed with the staff?	2.31	1.00
To what extent is the staff knowledgeable about them?	1.89	1.00
To what extent do they apply these in their work?	2.16	1.00
To what extent has each of the following been emphasized as being an important objective?		
Develop creativity	1.69	2.00
Develop inquiring mind	1.46	1.00
Develop self-discipline	1.54	1.00
Develop self-initiative	1.41	1.00
Develop resourcefulness	1.69	1.00
Develop self-evaluation skills	2.31	2.00
Develop research skills	1.46	1.00
Provide for individual differences	1.62	2.00
Free the teacher's time	2.97	4.00

Staff Leadership. To indicate the extent to which leadership emanated from various staff members, in the "Leadership" section of the data-collection instrument, teachers were asked to report on a "Greatly" to "Not at all" scale. For the entire study the mean number of "Greatly"s in this section was .85 per teacher. At School I it was .62. The mean number of "Moderately"s in this section was 1.28, while at School I it was 1.21.

The principal explained that heavy responsibility is placed on the department chairmen for providing leadership in the I.S. program. Table 77 indicates that teachers find leadership emanating to a moderate extent from the department chairmen and little from any other source.

TABLE 77

SOURCES OF PROGRAM LEADERSHIP

Source	According to Principal	Teachers
Principal	2.00	2.87
A.D.	4.00	3.44
Other administrators	4.00	3.50
Department chairmen	1.00	2.05
A specific teacher	4.00	3.00
A specific group of teachers	4.00	2.68

General Organization for Instruction. This school has 25 modules of 13 minutes each plus 115 minutes of passing time each day. School I is programed on a five-day cycle. Large-group and small-group instruction are used. Freshmen have slightly less large-group time than students at other grade levels. Lower ability students at all grade levels have less large-group time than do students of other ability groups.

About one-third of the school program is team taught. Social studies and math are teamed; English and science are not. The typical teacher has no specific class or supervision assignment during about one-third of the regular school day.

Independent Study Program Organization. School I defines independent study differently than do the other schools in this study. Students are scheduled on the modular schedule and are left with about 30 per cent of their school day unscheduled. Each teacher may then "back schedule" each student for three modules per week -- that is, for three modules of the student's time each week, he may be assigned by his teacher to a particular study center, library, or classroom for "independent study". This still leaves each student with some free time remaining. A few students are assigned to study halls, but these students still retain a small amount of free time. According to the students, because the back-scheduled time is not controlled in most cases, it, too, becomes free time.

For the purpose of completing the data-collection instrument, students were asked to consider as I.S. time that portion of the school day during which they had freedom to go whenever they chose and to do whatever they chose without having to specify where they would be or what they would do. Fifty per cent of the sample indicated that they had 20 to 30 per cent of their school day on independent study. Thirty-seven per cent reported 35 per cent or more of their time unscheduled, while 13 per cent indicated less than 20 per cent free time. Some effort is made to avoid scheduling large blocks of I.S. time.

I.S. privileges may be restricted because of conduct or achievement problems. Restriction may result in the student's being assigned to either additional back-schedule time or to a study hall.

Students may move between study areas or leave campus at any time. Students are asked to be on campus between 8:00 a.m. and 10:30 a.m. but this policy is not enforced.

Origin of Study Activities. As a means of determining the origin of student independent study activities, teachers were asked to identify the settings in which they gave independent study assignments to students. Table 78 indicates that the heaviest uses are made of the traditional class and the one-to-one situation.

TABLE 78

PERCENTAGE OF I.S. ACTIVITIES ORIGINATING
IN VARIOUS SETTINGS

Setting	Percentage of Assignments
Large group	14
Small group	18
Traditional size	29
One-to-one	29
Other	10

Students were asked how they spent their I.S. time and teachers

were asked how they thought students spent their time. The responses

(in Table 79) give some indication of the extent to which a student's I.S.

time is teacher dominated.

TABLE 79

NATURE OF STUDENT I.S. ACTIVITIES

Nature of Activity	Percentage of Time Spent According to	
	Students	Teachers
Doing specific teacher-given assignments	25	37
Doing general teacher-given assignments (student makes a choice)	17	18
Studying what the student wants	14	13

Motivation Techniques. Students were asked to indicate to what extent certain pressures influenced their choice of activities during independent study time. Table 80 indicates that grades were most important.

TABLE 80

PRESSURES AFFECTING I.S. ACTIVITIES

Pressure	Student Responses
Grades	1.95
Other teacher pressure	2.75
Own interest in work	2.35
Being observed	3.09
Other students	3.41
Parents	2.51

Teachers indicated that they made a moderate (2.00) effort to build into the classroom activities factors designed to stimulate student interest in I.S. activities. When asked to list the specific techniques they used to stimulate student interest, 59 per cent of the teachers listed one such technique, 39 per cent listed two, 17 per cent listed three, and 10 per cent listed four. Teachers also indicated that they relied upon grades moderately (1.92) and student self-interest between moderately and greatly (1.54) as means of stimulating student interest.

Students (2.94) and teachers (3.08) agreed that students are only required to a limited extent to discuss I.S. activities individually with their teachers.

Art and drafting projects are displayed as a means of stimulating student interest, and a literary magazine is published twice per year. The student council does not concern itself directly with the I.S. program.

Preparation of Students. Feeder schools, in the opinion of the high school staff, do little to prepare students to participate effectively in the I.S. program. The principal reports that little preparation is provided in the senior elementary school. Teachers agree that very little (3.43) evidence of preparation exists.

High school counselors meet individually with eighth graders for course selections. Printed material is sent home and a meeting is held with parents. Eighth graders are brought into the high school for a tour during the spring, and two one-hour group meetings are held in the fall. After school has started, social studies teachers spend about two weeks with freshmen on an orientation unit.

All teachers report that they spend a moderate (2.22) amount of class time discussing independent study.

The principal reports that teachers and counselors work with students who are not operating effectively in the program. The first

contact with these students is made by the teacher, who talks with the student and perhaps requires more back-scheduled time. The next step is referral to a counselor who, after working with the student, may elect to assign him to a study hall.

Students report that little (3.02) class time has been devoted to discussing the I.S. program but that the teachers, collectively, provide moderate (2.07) help in understanding the program. Students had little (2.71) understanding of the program before they entered the school. They received little (2.86) help from other students.

Supervision of Students. Students are not required to be in any particular place during unscheduled time. There is a relaxation area open to them in the student union at all times, and the weather is such that the school grounds are usable most of the time.

Supervision in study areas is provided primarily by teachers, except in the business education and foreign language areas where para-professionals are used and in the library where two clerks assist the librarian.

Table 81 indicates that students see teachers as the primary source of supervision.

Teachers estimated that 19 per cent of their non-instructional time was used for supervision. They are assigned to study centers and to the operation of open labs.

TABLE 81

SOURCE OF STUDENT SUPERVISION DURING I.S.

Source	According to	
	Principal	Students
Teachers	1.00	2.64
Other adults	3.00	3.34
Other students	4.00	3.41

Physical Facilities. School I operates in a fully air-conditioned plant which was designed to house a modular schedule. It has areas for large-group and small-group instruction.

The most frequently utilized area for I.S. is the library, which seats about 220 at tables. It is an exceptionally attractive area which is divided into three sections, creating an impression that it is smaller than it actually is.

Study centers are available for English, social studies, math-science, and business. The English and social studies centers, which each seat about 30 students (primarily at tables), are open to students whenever teachers are available to supervise them, about half the school day. They are used very little. The math-science center is in the middle of the complex which houses the science program. This

center seats about 25 students at tables and is open during all of the school day. The normal student use is about six or eight students to each module. Many of the students who use this center are assigned there on back-scheduled time. The business center seats about 26 at individual tables and is available throughout the school day. It is used primarily by back-scheduled students.

A student union which can accommodate about 200 students is open throughout the school day. Thirty-six study carrels are available in two alcoves adjacent to the main room. Other seating is at tables and chairs. Because the room is cluttered and noisy, the study carrels are rendered ineffective and are sparingly used. The school grounds in general and a patio area in particular are available to students when the weather permits, which is most of the time.

Adequate laboratory facilities are available in all areas except industrial arts. About half of these facilities are available throughout the school day, either as open labs or on a space-available basis while classes are in session. These labs--physics, biology, and industrial-arts--are almost never available.

Nearly all teachers have adequate office space. About half of these offices are readily accessible to students. Workroom space is also available to teachers.

Material and Human Resources. An outstanding collection of printed materials is available to students in the library--about 14,500 volumes for 1,250 students. Particular strengths are the number of periodicals, the broad range of book titles, materials for the more-able student, and professional books for the staff. The English and social studies centers are poorly supplied. They have very few books or periodicals, although the English center does have about 100 paper-back titles. The math-science center has about 800 books and eight periodical titles.

AV materials are not an important part of this I.S. program. Although they are available through an AV clerk, they are seldom used by students. The English center has a typewriter and controlled reader. Typewriters, office machines, calculators, and two tape recorders are available in the business center.

Printed materials are readily accessible to students and may be checked out from either the library or the study centers. AV materials, with the exception of the few which are housed in the study centers, are not conveniently available to students.

Materials for the study centers are selected primarily by teachers and department chairmen (see Table 82).

TABLE 82

PERSONNEL WHO SELECT MATERIALS FOR STUDY
AREAS OTHER THAN THE LIBRARY

Personnel	According to	
	Teachers	Principal
Building administration	3.27	3.00
Department chairmen	1.82	1.00
Teachers	1.37	1.00
Students	2.82	3.00
Librarian	2.53	2.00
Non-certified personnel	3.75	4.00
District personnel	3.62	4.00

Study centers operate under the direction of the department

chairmen with the assistance of the librarian as a resource person.

It is interesting to note that students believe that slightly greater

effort is made to encourage their use of out-of-school resource people

than is made to encourage their use of teachers other than those from

whom they are taking classes. But in either case they see the level

of uses as little (see Table 83).

Students reported that their own teachers were less than

moderately (2.21) available to them and that students voluntarily spent

little (2.94) time with these teachers. Students also indicated that

teachers made little (2.94) effort to require them to discuss I.S. work individually.

TABLE 83

STUDENT USE OF RESOURCE PEOPLE

Question	According to		
	Students	Teachers	Principal
To what extent are students encouraged to use other teachers?	3.11	2.24	2.00
To wnat extent do they use other teachers?	3.28	2.56	2.00
To what extent are students encouraged to use outside resource people?	2.94	2.58	2.00
To what extent do they use outside resources?	3.06	2.68	3.00

Evaluation. According to the principal, each department chairman is responsible for evaluating I.S. in his own department, and the department chairmen as a group are responsible for evaluating the overall I.S. program. However, no specific techniques were identified. No analysis of test scores had been made, but information from graduates has been informally collected.

The principal believes that a moderate effort is made to evaluate teacher effectiveness in the program by subjective administrative

appraisal. Teachers report that little (2.97) effort is made to evaluate
their effectiveness.

Teachers indicate that from moderate to little (2.61) effort is
made to aid students in evaluating their own progress in terms of
either short-range or long-range objectives. The principal believes
that a great effort is made to do this through student-teacher and
student-counselor discussions.

Staff In-Service Activities. The extent to which various kinds
of in-service activities have been used may be seen in Table 84.
Responses vary from moderately to little, with assistance from other
teachers ranked highest.

TABLE 84

IN-SERVICE ACTIVITIES USED TO IMPROVE
INDEPENDENT STUDY PROGRAM

Activity	According to	
	Teachers	Principal
Regular faculty meeting	3.10	3.00
Special meetings during the school year	2.92	2.00
Extended contracts	3.83	4.00
Individual conferences	2.47	2.00
University workshops	3.42	4.00
Use of resource people	3.05	3.00
Special assistance to new teachers	2.69	2.00
Printed materials - commercial	2.97	2.00
Printed materials - staff devised	2.67	1.00
Assistance from other teachers	2.10	1.00

Other Information. School I staff members report that they had

some serious problems with I.S. during the first year of operation.

All students were given the full range of independent study privileges

at that time. As a result of difficulties growing out of that experience,

the back scheduling and study hall systems were initiated.

CHAPTER IV

A COMPARISON OF CHARACTERISTICS RECOMMENDED IN THE LITERATURE TO CHARACTERISTICS OF SUCCESSFUL AND LESS SUCCESSFUL PROGRAMS

In Chapter II the literature pertaining to independent study programs was reviewed. This literature consisted almost entirely of theory about how a program should be structured and operated. In Chapter III, a description of each of the nine programs involved in this study was presented. This chapter (IV) compares the recommendations in the literature to the characteristics of the operating programs. Attention is directed to the differences in practices which exist between successful and less successful programs. The comparison is presented under the 12 sub-headings used to describe each program in Chapter III.

Program Objectives

A tacit assumption throughout the literature on the objectives of independent study is that teachers, and to some extent students, will discuss and understand the objectives of the independent study program. Table 85 shows that almost all teachers in successful programs are aware of the existence of written objectives for their

program; most of these teachers have their own copy of these objectives. A smaller majority of the staffs in three of the less successful programs are also aware of written objectives and in two of these three schools a majority of the teachers have their own copy. In the remaining three programs few teachers are aware of any written objectives.

Table 86 provides additional evidence that in the successful programs the emphasis placed on communication about objectives is greater than the emphasis placed here in the less successful programs. Teachers were asked to what extent program objectives have been discussed with them, and to what extent they are knowledgeable about them. Responses in all successful programs fall above the mean on both questions while all but two of those in less successful programs fall below the mean.[1] Students were asked to what extent teachers have talked to them about the program objectives. Table 87 shows that student responses in all the successful programs fall above the mean while four of the six less successful programs fall below the mean.

Although program objectives are expressed in many ways in the literature, these objectives can be generally classed as follows:

_____

[1]Programs rated as successful are in Schools B, C, and H and those rated as less successful are in A, D, E, F, G, and I.

TABLE 85[1]

TEACHER AWARENESS OF EXISTENCE OF WRITTEN OBJECTIVES
(ACCORDING TO TEACHERS)

Question	School								
	B	C	H	A	D	E	F	G	I
Are you aware of written objectives?	90	89	88	83	39	10	34	70	67
Do you have own copy?	79	64	84	63	34	4	34	50	51

[1]On all questions where only a "yes" or "no" response was possible, figures given in tables indicate "yes" responses as a percentage of total responses.

TABLE 86[1]

EXTENT TO WHICH PROGRAM OBJECTIVES HAVE BEEN DISCUSSED WITH TEACHERS
(ACCORDING TO TEACHERS)

Question	All Schools	B	C	H	A	D	E	F	G	I
To what extent have program objectives been discussed with you?	2.22	1.84	2.20	1.52	2.07	2.59	2.65	2.45	2.32	2.31
To what extent are you knowledgeable about these objectives?	2.10	1.72	2.07	1.60	2.17	2.48	2.47	2.48	2.00	1.89

[1]Responses to questions are on a Greatly = 1.00 to Not at all = 4.00 scale. The lower the number the closer it approaches a "Greatly" response. Therefore if a number is smaller than the mean, it is referred to as being above the mean.

TABLE 87

EXTENT TO WHICH TEACHERS HAVE DISCUSSED PROGRAM OBJECTIVES WITH STUDENTS
(ACCORDING TO STUDENTS)

Question	All Schools										
		B	C	H	A	D	E	F	G	I
Extent to which your teachers have discussed the objectives of the I. S. program with you?	2.79	2.51	2.73	2.64	2.79	3.07	2.89	2.52	2.73	3.02

1) Provide a structure which permits maximum program individualization for each student;

2) Assist students in developing an inquiring mind;

3) Encourage more creative work by students;

4) Teach and provide reinforcement, through use, of learning skills needed by the individual;

5) Encourage autonomous learning;

6) Develop self-discipline and decision making skills;

7) Increase student motivation for learning by increasing student involvement in decisions concerning his education.

The first two of these seven objectives are considered the most fundamental objectives by writers in the field.

Teachers were asked to what extent each of the following eight objectives have been emphasized to them as being important objectives of the independent study program in their school: (1) develop creativity; (2) develop an inquiring mind; (3) develop self-discipline; (4) develop self-initiative; (5) develop resourcefulness; (6) develop self-evaluation skills; (7) develop research skills; and (8) provide for individual differences.

Two differences between teacher responses in successful programs and those in less successful programs become apparent when Table 88 is reviewed. One is that objectives in general have received more emphasis in successful programs. In 24 possible

TABLE 88

EMPHASIS GIVEN TO VARIOUS OBJECTIVES
(ACCORDING TO TEACHERS)

Objective	All Schools	B	C	H	A	School D	E	F	G	I
Develop creativity	1.98	1.55	1.87	1.72	1.98	2.11	2.29	2.50	2.10	1.69
Develop inquiring mind	1.75	1.43	1.67	1.40	1.86	1.89	2.06	2.14	1.85	1.46
Develop self-discipline	1.69	1.59	1.89	1.32	1.72	1.68	1.96	1.97	1.60	1.54
Develop self-initiative	1.62	1.42	1.68	1.28	1.71	1.57	1.93	1.97	1.59	1.41
Develop resourcefulness	1.82	1.56	1.84	1.44	1.81	1.89	2.13	2.17	1.85	1.69
Develop self-evaluation skills	2.37	2.16	2.33	2.00	2.38	2.25	2.81	2.68	2.44	2.31
Develop research skills	1.91	1.85	1.87	1.68	1.81	1.89	2.16	2.43	2.04	1.46
Provide for individual differences	1.74	1.64	1.53	1.28	1.81	1.75	2.13	2.03	1.84	1.62

response areas (3 successful program schools x 8 objectives) 21 are above the mean. Sixteen of 48 are above the mean in less successful programs. The other difference concerns the emphasis placed on the two most fundamental objectives -- providing for individual differences and developing inquiring minds. All of the successful programs fall above the mean on both of these while only one less successful program falls above on each.

An inconsistency in the patterns in Table 88 should be noted. School I, which is classed as less successful, falls above the mean on all eight objectives including the two most fundamental.

Staff Leadership

The literature provides little help regarding staff leadership patterns in independent study programs. Yet it is possible to make two rather tenuous generalizations: (1) that teachers must assume a more active leadership posture; and (2) that principals must assume a heavy leadership role.

Teachers were asked to respond on a "Greatly" to "Not at all" scale to indicate the extent to which leadership emanates from various staff members. Three conclusions may be reached from the data obtained. In Table 89 the mean number of per teacher responses to "Greatly" and "Moderately" has been calculated for

each school. For all schools, the mean number of "Greatly's" per teacher was .85. All three successful programs exceed this mean by from .35 to .71 while all less successful programs fall below the mean by .04 to .38. The mean number of "Moderately's" reported by all schools is 1.28. Two of the three successful programs exceed this mean. The one which falls below is the school which has the largest number of "Greatly" responses. Five of the less successful programs fall below the mean for "Moderately." One may conclude that teachers in successful programs can identify stronger sources of leadership than can those in less successful programs.

The second conclusion is that who the leader is, is not as important as the fact that leadership exists. Teachers in each of the successful programs select a different primary source of leadership. In School B it is "a specific group of teachers" (most teachers indicate the I.S. committee). In School C it is the administrative director, and in School H it is the principal (see Table 90).

The third conclusion, supported by the evidence of Table 90, is that in successful programs teachers have assumed a more active leadership role. Two of the sources of leadership which teachers had the opportunity to identify were (1) a specific teacher, and (2) a specific group of teachers. Of the six possible response areas (3 successful programs x these 2 sources) teachers in successful

TABLE 89

MEAN NUMBER OF GREAT AND MODERATE SOURCES OF LEADERSHIP IDENTIFIED
(ACCORDING TO TEACHERS)

Extent to which Leadership Emanates	All Schools				School					
		B	C	H	A	D	E	F	G	I
Greatly	.85	1.23	1.20	1.56	.63	.57	.47	.76	.81	.62
Moderately	1.28	1.55	2.07	1.12	.95	.86	1.00	1.41	1.26	1.21

TABLE 90

SOURCES OF PROGRAM LEADERSHIP
(ACCORDING TO TEACHERS)

Source	All Schools				School					
		B	C	H	A	D	E	F	G	I
Principal	2.26	2.14	2.64	1.16	1.98	2.68	2.53	2.29	2.09	2.87
Administrative director	3.11	2.43	2.07	3.11	3.26	3.30	3.76	3.75	2.89	3.44
Other administrators	3.17	3.04	2.85	2.83	3.26	3.41	3.49	3.38	2.75	3.50
Department chairmen	2.42	2.55	2.55	2.04	3.05	2.39	2.59	2.27	2.25	2.05
A specific teacher	3.06	2.71	2.29	2.82	3.35	3.50	3.41	3.16	3.29	3.00
A specific group of teachers	2.82	1.77	2.19	2.82	3.03	3.63	3.29	2.65	3.28	2.68

programs place five above the mean for all schools. One falls on the mean. Out of 12 possible response areas in the less successful programs (6 schools x these 2 sources) three are above the mean.

The available data do not support any conclusions about the leadership role of the principal. Because the organizational structure varies considerably from school to school, a more detailed study of the principal's role would be necessary. For example, in one of the successful schools the responsibility for development of the I.S. program has been definitely delegated to an administrative director, whom the staff identified as the primary source of leadership.

General Organization for Instruction

Most of what has been written about the general organization for instruction in schools with independent study programs has been produced by Trump. He recommends a modular schedule with heavy use of team teaching, large-group and small-group instruction. Heavy emphasis is placed on the need to individualize each student's schedule according to his educational needs and capacities.

All schools in this study operate on modular schedules which are very much alike in terms of time divisions.

There are differences in the amount of team teaching. All of

the successful programs employ this technique heavily. The amount
of team teaching is controlled primarily by the size of the school and
the number of classes of a given subject. Only one of the less
successful programs is more than one-third team taught; three of
these programs employ very little or no team teaching.

All schools, with the exception of one less successful one, use
both large-group and small-group instruction. Almost all vary the
amount of each according to the student's ability level.

In connection with the need to individualize students' programs
a wider discrepancy between successful and less successful programs
appears. All successful programs engage in activities designed to
accomplish individualization. For example, they pretest students to
determine their needs, release students who demonstrate adequate
mastery of that class from classes, offer enrichment courses during
I.S. time, make contractual arrangements with students for these
students to deviate from the standard program, and release students
to outside educational agencies. Some of these same activities are
being used in less successful programs but neither to the extent nor
to the intensity found in the successful programs.

It should also be noted that the amount of time the typical
teacher has free from class or supervision assignments ranges from
26 to 47 per cent in successful programs. In three of the less

successful programs less than 20 per cent of the teacher's time is unscheduled.

Independent Study Program Organization

Patterns of organization against which comparisons can be made are not apparent in the literature. Still, two points of discussion are identifiable. One is concerned with determining which students should have I.S. privileges; the other with the kinds of controls which should limit the student's activities. If Trump's writings are again used as the base line, then the goal will be to attempt to help all students learn to operate independently. However, Trump would have the staff decide the amount and kind of I.S. time individual students should have. Trump also indicates that some control of student movements during I.S. time may be advisable.

When successful and less successful programs are compared to see which students are accorded I.S. privileges, no useful patterns emerge. One successful program gives all students I.S. time. A second provides it for all students at the beginning of the year, then restricts some individuals. The third accepts applications for I.S. privileges from any student but grants it to only about 60 per cent of the student body. A similarly varied approach exists among the less successful programs. Misconduct and poor

achievement are the most common reasons given for limiting I.S. time.

But when the two classes of schools (successful and less successful) are compared with regard to student movement, two patterns do appear. One of these relates to the kinds of restrictions. All but one school provide opportunities for students to spend I.S. time in a wide variety of settings. All successful programs restrict student movements on the grounds and in the buildings to the passing time between modules. These restrictions are usually designed to control the noise level and atmosphere of classrooms or study areas. Frequently, students are not allowed to enter or leave a study area except between modules. Only two of the less successful programs have similar restrictions. All successful programs maintain a closed campus, but only one of the less successful does.

The other difference has to do with the extent to which stated rules are enforced. In successful programs there is a very strong tendency for stated rules to be enforced, at least to the extent that they accomplish the end the rule was designed to achieve. As stated above, all of the successful programs enforce a closed campus policy. Five of the six less successful programs have a rule which restricts students to the campus, but only two enforce the rule. Three of the less successful programs also place some

explicit restrictions on student movements while on campus, but only one enforces these.

Origin of Study Activities

Three types of independent study work are identified in the literature. The first of these is the standard homework or specific assignment, such as "read pages 18 through 27." A second type, also frequently found in the traditional program, is the assignment given in a way that the student has some choices to make such as "select a topic of your choice and be prepared to take part in a panel discussion." The third type is study by a student only because he is interested in it. It is the contention of the writers in the field that this third kind is not often found in the traditional program. These writers suggest the better I.S. programs should encourage more of this kind of student interest.

The literature asks that I.S. activities in which a student is involved fit his particular capacities and readiness -- that is, they should be individualized.

Students were asked what percentage of their I.S. time is spent doing specific assignments, doing general assignments, and studying things just because they are interested. Students in successful programs spend slightly more time studying things just

because they are interested, but these same students spend slightly
more time in all kinds of productive activities (see Table 91). The
data is inconclusive on this point.

Teachers were asked to what extent student I.S. activities are
generated in large groups, small groups, traditional size classes,
one-to-one situations, and other settings. The assumption was made
that study activities which are generated in the small-group and
one-to-one situations will tend to be more individualized because of
the characteristics of these settings. Table 92 reveals that study
activities in successful programs are generated slightly more often
in one-to-one settings and substantially more often in small-group
settings than is the case in less successful programs. Based on
this evidence and rationale, a rather tenuous conclusion may be
suggested that successful programs do make a greater effort to in-
dividualize student I.S. activities than do less successful programs.

Motivation Techniques

Six points seem to be made in the literature regarding motiva-
tion:

1) Once the proper climate is developed and the student
   becomes an active part of the situation, motivation
   tends to become cyclical in nature;

TABLE 91

NATURE OF STUDENT I.S. ACTIVITIES[1]
(ACCORDING TO STUDENTS)

Nature of Activity	All Schools	Schools								
		B	C	H	A	D	E	F	G	I
Doing specific assignments	29	34	37	28	29	33	30	27	25	22
Doing general assignments	17	19	16	17	17	18	16	15	14	17
Studying what the student wants	16	16	16	18	14	18	14	14	16	14

[1]Reported as a percentage of all responses.

TABLE 92

PERCENTAGE OF STUDENT I.S. ACTIVITIES ORIGINATING IN VARIOUS SETTINGS
(ACCORDING TO TEACHERS)

Setting	All Schools	B	C	H	A	Schools D	E	F	G	I
Large group	24	20	32	40	24	13	20	19	38	14
Small group	21	33	30	25	12	20	9	23	20	18
Traditional size	32	21	12	14	50	42	51	34	33	29
One-to-one	16	20	19	16	9	16	14	12	7	29
Other	7	6	11	5	4	9	6	9	3	10

2) The school needs to place importance on independent study, and make this emphasis apparent to the student;

3) An appropriate physical setting will help stimulate productive I.S. work;

4) The teacher must build I.S. stimulants into the classroom setting;

5) Maintaining individual student-teacher dialogue concerning I.S. is important; and

6) The student should know that I.S. privileges may be revoked.

The data from this study provide no help in determining whether a cyclical effect actually develops from a proper climate in the program.

Data are available about the attempts of the schools to get students to recognize the importance placed on independent study. Each administrative director was asked what kinds of techniques are employed at the program level (i. e. , other than those employed by teachers in their dealings with students) to stimulate student interest in I.S. activities. Three of the less successful programs make some effort to display I.S. projects, but none appear to work very actively at this. Two of the successful programs make a major effort to stress the importance of I.S. work. They do such things as display projects, send letters from the principal, display posters, and select a scholar of the month.

If "an appropriate physical setting" is defined as meaning a suitable place and the necessary resources, then differences appear between the successful and the less successful groups. These differences are detailed in the sections on "Physical Facilities" and "Material and Human Resources." The data in these sections indicate that all of the successful but only one of the less successful programs satisfies both of these requirements.

As a means of determining the extent to which stimulants were built into the classroom setting, teachers were asked to list up to four motivational techniques they used. Table 93 indicates that teachers in successful programs are able to list more techniques than are those in the less successful programs.

Students were asked to what extent they voluntarily discuss or are required to discuss their I.S. activities individually with their teachers. Table 94 shows that students in all three successful programs are at or above the mean on each question while only two less successful programs are above the mean, one on each question.

The practice of revoking I.S. privileges varies between the two quality groups. Two of the successful and four of the less successful programs restrict I.S. time for such things as misconduct or poor achievement.

Although it is not discussed in the literature, an interesting

210

TABLE 93

PERCENTAGE OF TEACHERS LISTING 1, 2, 3, OR 4 MOTIVATION TECHNIQUES

Number of Techniques Listed	All Schools	B	C	H	A	D	E	F	G	I
One	58	53	73	79	49	40	54	61	53	59
Two	40	37	49	63	30	28	41	35	40	39
Three	24	27	29	38	26	16	31	10	23	17
Four	11	15	20	17	9	5	9	0	13	10

TABLE 94

EXTENT TO WHICH STUDENTS DISCUSS I.S. ACTIVITIES WITH TEACHERS
(ACCORDING TO STUDENTS)

Nature of Impetus	All Schools	B	C	H	A	D	E	F	G	I
Voluntarily	2.77	2.77	2.26	2.73	2.88	2.73	2.94	2.92	2.82	2.94
Required	3.16	2.88	2.72	3.06	3.18	3.64	3.39	3.27	3.38	2.94

picture concerning pressure on students emerges from the data.
Students were asked to what extent their I.S. activities are engaged in
because of various pressures. Table 95 shows that students in
successful programs are above the mean in all of 18 possible re-
sponse areas (3 successful schools x 6 pressures). Students in less
successful programs are above the mean in 13 of 36 possible re-
sponse areas. Although their responses vary from moderately to
very little, it appears that students in better programs feel a greater
sense of pressure than do others.

Preparation of Students

There is agreement in the literature that the development of
the necessary skills which a student needs to operate independently
should not be left to chance. Trump lists some specific skills which
need to be developed, but gives little suggestion as to how the nec-
essary skills and attitudes may be achieved.

There is nearly complete agreement among the schools ob-
served that the feeder schools do little of a specific nature to pre-
pare students to operate effectively in the I.S. program.

All schools in the study provide for some kind of pre-school
orientation, operated by the high school. All of the successful pro-
grams follow this with some kind of orientation program after school

TABLE 95

PRESSURES AFFECTING I.S. ACTIVITIES
(ACCORDING TO STUDENTS)

Pressure	All Schools	School								
		B	C	H	A	D	E	F	G	I
Grades	1.92	1.85	1.80	1.79	1.88	2.09	2.05	1.99	1.91	1.95
Other teacher pressure	2.80	2.69	2.66	2.74	2.76	2.96	2.93	2.92	2.83	2.75
Own interest in work	2.09	2.04	1.91	2.08	1.94	1.84	2.27	2.22	2.14	2.35
Being observed	3.10	3.09	2.99	2.92	3.11	3.08	3.27	3.23	3.13	3.09
Other students	3.35	3.21	3.22	3.34	3.27	3.52	3.46	3.33	3.35	3.46
Parents	2.49	2.38	2.43	2.34	2.45	3.00	2.57	2.43	2.28	2.51

starts. Three of the six less successful programs also provide an orientation program during the first part of the school year.

In all schools, students who are not operating effectively receive some attention in the counseling program. Administrative directors were asked whether these students receive any special assistance beyond this. In all of the successful programs and in one less successful program they are able to identify some other aid. This most commonly takes the form of providing some means of increasing individual student-teacher contact.

Students in successful programs generally feel that more effort is expended to help them understand the I.S. program than do students in less successful programs. Class time devoted to I.S. discussion and help in general from teachers fall above the mean in all successful programs. Two less successful programs fall above the mean on each question (see Table 96).

Supervision of Students

Two generalizations appear in the literature pertaining to supervision of students in independent study programs. One of these is that students can accept much more responsibility for their own supervision than is usually permitted in traditional programs. The other generalization is that because these students are

TABLE 96

SOURCES OF HELP IN UNDERSTANDING I.S. PROGRAM
(ACCORDING TO STUDENTS)

Source of Help	All Schools	B	C	H	A	School D	E	F	G	I
Class discussion	2.79	2.51	2.72	2.64	2.79	3.07	2.89	2.52	2.73	3.02
Teacher help	1.89	1.83	1.64	1.77	1.78	1.87	2.01	2.02	2.05	2.07
Student help	2.65	2.56	2.38	2.75	2.57	2.58	2.77	2.70	2.72	2.86

adolescents with varying characteristics, some supervision is still necessary. The use of non-certified personnel for supervision is also strongly recommended.

There seems to be little difference in the amount of supervision provided in successful programs as compared to that provided in less successful programs. However, there is a difference in the supervisory personnel. Aides are used in all of the successful programs but in only half of the less successful programs. There also appear to be differences in the backgrounds of these aides. In successful programs a major consideration in selection is academic competence in areas appropriate to their supervision responsibilities. In less successful programs many aides seem to have been selected for their ability to provide services for teachers rather than their ability to provide services to students.

Physical Facilities

Facilities for independent study have been treated generously in the literature. A basic disagreement has centered around where I.S. materials should be housed. One point of view is that all materials should be housed in a centralized area -- the instructional materials center concept. The other position is that separate study centers -- such as English, social studies, and science -- should be

developed. Successful programs seen in this study use both approaches. For example, School B has highly developed separate study centers; School C has a highly developed I. M. C.

Six generalizations about physical facilities are drawn from the literature.

1) Facilities need to be such that students can have ready access to printed materials appropriate to their I. S. activities.

2) The same consideration needs to be given to accessibility of AV materials.

3) Suitable laboratory facilities must be available for I. S. work.

4) A physical atmosphere which is conducive to study needs to be provided.

5) Privacy for study needs to be provided, at least to the extent that the student can work without interference from others. A device often mentioned as a means of providing this privacy is the individual study carrel.

6) Students need some facilities where they can talk and work together.

It is rather difficult to correlate any specific physical facilities with program success, because of other variables which are very difficult to assess. As an example, the atmosphere in a study area may be strongly affected by such things as furniture placement or the effectiveness of the supervisor in charge. How the facilities are used may be as important as the nature of the facilities themselves.

Two of the successful programs are housed in physical plants
which were designed for traditional programs and have been re-
modeled only in minor ways. The third successful program, housed
in a very old, quite inadequate physical plant, has added a functional
instructional materials center. Three of the less successful pro-
grams are housed in facilities designed for a modular schedule, two
in traditional plants, and the other in a traditional plant that has
added a new wing designed for the modular schedule.

When the physical facilities are analyzed to see how closely
they satisfy the requirements established by the literature, some
differences between successful and less successful programs appear.

Students in all of the successful programs, but in just one of
the less successful programs, have physical facilities which give
them ready access to printed materials. Three of those schools
which do not meet this standard lack adequate seating capacity in the
areas where the materials are kept. Other problems are caused by
non-I.S. students being scheduled into a facility in such numbers that
there isn't adequate room for I.S. students or where the materials
do not exist in sufficient quantity.

All of the successful programs provide satisfactory listening
and viewing facilities for the use of AV materials. Only one of the
less successful programs provides satisfactory AV facilities.

The availability of suitable laboratory facilities is more a product of policies relating to use of these facilities than it is of their existence. Eight of the nine programs have at least fair laboratory facilities. The one which does not is in School C, a successful program. One successful and one less successful program make extensive use of the labs for independent study. Others are handicapped by such things as scheduling problems, staff members who do not believe in open labs, or a lack of supervisory personnel for the labs.

All of the successful programs and one of the less successful programs provide atmospheres which the researcher feels are conducive to study. Noise, student traffic problems, and austere appearance are the most common problems in the others.

Opportunities for at least semi-privacy while studying are fair or good in the successful programs. Four of the less successful programs provided poorly for privacy. Study carrels are used to a great extent in one successful program and in one less successful program. They are used to some extent in the other two successful programs and in one less successful program.

Facilities where students can work together (particularly in conference rooms) are rated as good in two successful programs and one less successful program. Four of the less successful programs

are rated as poor in this area.

A summary of the researcher's evaluation of physical facilities in each of the nine programs may be seen in Table 97.

Material and Human Resources

The first major point made in the literature dealing with material and human resources is that student interests and abilities will cover a broad range, and that this breadth must be reflected in the available resources. These resources should include printed materials, AV materials, and personnel.

The other major point is that students must have ready accessibility to these resources with a minimum of red tape and a maximum of encouragement and assistance.

The quality of the printed and AV materials collections in each school was rated by the researcher. A difference between successful and less successful programs is readily apparent in Table 98. All of the successful programs have good collections of both printed and AV materials. Only two of the less successful programs have good collections of printed materials and none have good collections of AV materials.

Table 97 indicates that these collections are readily accessible to students in the better programs and not as accessible in the less

TABLE 97

ADEQUACY OF PHYSICAL FACILITIES FOR I.S.
(ACCORDING TO RESEARCHER)

Provision for	School								
	B	C	H	A	D	E	F	G	I
Accessibility to printed materials	G	G	G	F	F	P	F	F	G
Accessibility to AV materials	G	G	G	G	N	N	N	N	F
Suitable laboratory facilities	G	P	F	G	P	P	P	P	F
Suitable study atmosphere	G	G	G	F	F	P	F	F	G
Semi-privacy for study	F	G	F	G	F	P	P	P	P
Space where students may work together	F	G	G	G	F	P	P	P	P

G = Good; F = Fair; P = Poor; N = Non-existent (or so inadequate as to be of no use)

TABLE 98

ADEQUACY OF I.S. MATERIALS COLLECTION
(ACCORDING TO RESEARCHER)

Type	School							
	B	C	H	A	D	E	F	I
Printed materials	G	G	G	G	P	F	F	G
AV materials	G	G	G	F	N	N	P	F

G = Good; F = Fair; P = Poor; N = Virtually non-existent

successful programs.

The same pattern holds true in the area of human resources. Table 99 shows that students in successful programs report their teachers to be more available to them, the students voluntarily talk with them more, and the students are required to talk with them more than are the students in less successful programs.

They also are encouraged to use and actually use, to a greater extent than do students in less successful programs, the services of teachers from whom they are not taking classes as well as outside resource people (see Table 100).

Evaluation

No information in the literature helps evaluate a total I. S. program. However, the literature stresses that students must be helped to evaluate their efforts and that these evaluations must be done individually for each student.

A review of the sections in Chapter III dealing with evaluation indicates that two of the successful programs have well developed evaluation procedures established for the total program. The third school has a committee which deals with evaluation and uses test score analysis and college follow-ups. One of the less successful programs has a similar system for evaluation. All do some

TABLE 99

EXTENT OF STUDENT USE OF OWN TEACHERS IN I.S.
(ACCORDING TO STUDENTS)

	All Schools	B	C	H	A	D	E	F	G	I
Extent of teacher availability	2.08	1.90	1.69	1.96	1.99	2.26	2.23	2.35	2.15	2.21
Extent used voluntarily	2.77	2.77	2.26	2.73	2.88	2.73	2.94	2.92	2.82	2.94
Extent required to use	3.16	2.88	2.72	3.06	3.18	3.64	3.39	3.27	3.38	2.94

TABLE 100

EXTENT OF STUDENT USE OF OTHER RESOURCE PEOPLE
(ACCORDING TO STUDENTS)

	All Schools	B	C	H	A	School D	E	F	G	I
Encouraged to use other teachers	2.87	2.66	2.40	2.59	3.13	3.20	2.84	2.95	2.92	3.11
Actually use other teachers	3.05	2.98	2.74	2.89	3.10	3.14	3.18	3.08	3.03	3.28
Encouraged to use outside people	2.92	2.48	2.61	2.88	2.83	3.48	2.93	3.07	3.11	2.94
Actually use outside people	3.00	2.75	2.86	2.98	2.92	3.48	2.92	3.03	3.04	3.06

subjective work, and most collect informal comments from college students, but to a lesser degree than do the successful programs.

Teachers were asked to what extent students are aided in evaluating their own progress. Table 101 shows that all three successful programs and one less successful program fall above the mean.

Staff In-Service Activities

Numerous references are made in the literature to the need for teachers to learn new skills, develop a thorough understanding of the program, and take part in planning and decision making. Each of these requirements has in-service implications, but the literature stops here. There is a tacit understanding that a program is needed, but no direction is given as to how it should be undertaken.

Teachers were asked to what extent 10 specific in-service activities have been used in connection with the independent study program in their school. Although no particular activity stands out as the most commonly employed, it is apparent from Table 102 that teachers in successful programs believe that a great deal more effort has been devoted to in-service than do teachers in less successful programs. Out of 30 possible response areas (3 successful schools x 10 activities) 27 are above the mean in successful

TABLE 101

EXTENT TO WHICH STUDENTS AIDED IN EVALUATING I.S. PROGRESS
(ACCORDING TO TEACHERS)

	All Schools	B	C	H	A	School D	E	F	G	I
Extent of aid to students	2.77	2.34	2.64	2.09	3.07	3.14	3.15	2.96	2.94	2.61

TABLE 102

IN-SERVICE ACTIVITIES USED TO IMPROVE I.S. PROGRAM
(ACCORDING TO TEACHERS)

Activity	All Schools	School								
		B	C	H	A	D	E	F	G	I
Regular faculty meetings	2.80	2.51	2.60	2.16	2.81	3.00	3.13	3.04	2.83	3.10
Special meetings during school year	2.71	2.38	2.22	2.48	2.65	2.86	3.19	3.08	2.64	2.92
Extended contracts	3.45	3.35	3.27	3.62	2.81	3.77	3.35	3.52	3.52	3.83
Individual conferences	2.91	2.94	2.76	2.20	3.17	3.02	3.23	3.11	3.26	2.47
University workshops	3.15	3.29	2.42	2.79	3.02	3.44	3.25	3.59	3.10	3.42
Use of resource people	2.81	2.76	2.53	2.00	2.86	2.77	3.27	3.23	2.83	3.05
Special assistance to new teachers	2.92	2.76	2.51	2.32	3.17	3.09	3.04	3.44	3.22	2.69
Printed materials - commercial	2.91	2.91	2.55	2.48	2.81	3.05	3.19	3.30	2.93	2.97
Printed materials - staff devised	2.69	2.31	2.23	1.92	2.69	3.10	3.07	3.19	3.00	2.67
Assistance from other teachers	2.47	2.32	2.14	2.13	2.50	2.93	2.75	2.56	2.62	2.10

228

programs and 12 out of 60 are above the mean in less successful

programs.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study has as its purpose the identification of character-
istics which contribute to successful secondary school independent
study programs. Three major steps have been carried through in
achieving this purpose:

1) Independent study program characteristics recommended
   in the literature have been identified.

2) Case studies of three successful and six less successful
   independent study programs have been completed.

3) Those characteristics identified from the literature, those
   found in successful programs, and those found in less
   successful programs have been compared.

The same 12 characteristic areas which are used as the basic
organizational structure in Chapters II, III, and IV provide the
pattern for this summary.

Summary

Program Objectives

The literature indicates that teachers in successful programs
have a better understanding of the objectives of their programs than
teachers in less successful programs. The data from this study

indicate that objectives in successful programs are more frequently

discussed, and better understood than in less successful programs.

Providing a structure which permits individualization of in-

struction and helping the student to develop an inquiring mind are

the most emphasized objectives in the literature. When teachers

were asked to identify the objectives which receive the most atten-

tion in their I.S. programs, differences in emphasis among objec-

tives were not discernible. However, it is apparent that the develop-

ment of objectives receive greater attention in successful programs.

Staff Leadership

Teachers in successful programs feel that they have stronger

leadership than do those in less successful programs. When rating

leadership sources on the "Greatly" to "Not-at-all" scale, each of

the three successful schools identifies "Greatly" more than does any

of the less successful staffs.

The primary source of leadership is different in each of the

successful programs. In one it is the principal; in one other, the

administrative director; and in the third, a specific group of

teachers (i. e. , a committee on independent study). Individual

teachers and groups of teachers are also identified more frequently

as sources of leadership in the successful programs.

General Organization for Instruction

J. L. Trump, who has provided much of the literature on the general organization for instruction as it is related to independent study, recommends a modular schedule and team teaching with heavy emphasis placed on individualizing each student's program according to his needs and capacities.

All schools in this study operate a modular schedule, but successful programs make heavier use of team teaching.

It is in connection with efforts to individualize each student's program that the greatest difference appears between the successful and the less successful programs. All successful programs emphasize activities designed to accomplish individualization. They pre-test students to determine needs, release from specific classes those students who demonstrate adequate mastery, offer enrichment courses during I. S. time, make contractual arrangements with students which allow those students to deviate from the standard program, and release students to outside educational agencies. Some of these same techniques are being used in less successful programs, but neither to the extent nor with the intensity found in the successful programs.

Successful programs also provide teachers with somewhat

more unscheduled time in which they can work individually with I. S. students.

Independent Study Program Organization

The literature largely ignores the matter of program organization. Nevertheless, two points of discussion are identifiable. One of these has to do with the selection of students for participation in the I. S. program; the other, with the restrictions that should be placed on student activities during I. S. time.

The data do not give support to any one practice for selecting students who should participate in the I. S. program. Practices differ substantially within both the successful and the less successful quality groups.

Successful practices do appear, however, with regard to restrictions placed on student movements during I. S. time. Schools in the successful group have policies which place greater restrictions on student movement than do the policies of the less successful schools. The successful schools all maintain a closed campus and restrict some student movement on campus. Only one of the less successful programs maintains a closed campus, and only two restrict student movement on campus. Furthermore, in successful programs there is a strong pattern of stated rules being enforced, at least to

the extent that these rules accomplish the ends they were designed to achieve. Although most of the less successful programs, too, have stated rules, these rules are frequently not enforced.

Origin of Study Activities

Students in successful independent study programs, according to the literature, will spend more time studying things just because they want to than will students in other programs. These I. S. activities will tend to originate more often in small-group or individual teacher-student settings, thus reflecting the individualized nature of the program.

The data relating to the first of these points are inconclusive. Students in successful programs do indicate that they spend slightly more of their I. S. time studying things just because they want to, but these same students spend more time in many other kinds of productive activities as well.

Teachers in successful programs reported a slightly higher rate of I. S. activities originating in one-to-one and small-group situations than did teachers in less successful programs. This information suggests that successful programs make a particular effort to individualize student I. S. activities, but the differences between the successful and the less successful groups in this matter

are not great enough to merit a definite conclusion.

Motivation Techniques

Six points are made in the literature regarding motivation:

1) Once the proper climate is developed and the student becomes an active part of the situation, motivation tends to become cyclical in nature;

2) The school needs to place importance on independent study and make this emphasis apparent to the student;

3) An appropriate physical setting will help stimulate I.S. work;

4) The teacher must build I.S. stimulants into the class-room setting;

5) Maintaining individual student-teacher dialogue concerning independent study is important; and

6) The student should know that I.S. privileges may be revoked.

No data were collected which had bearing on the cyclical nature of motivation. Also, the evidence concerning revoking of I.S. privileges is inconclusive.

However, data on the other four points indicate that schools with successful programs do make a greater effort to stimulate student interest in I.S. activities than do schools with less successful programs. The successful schools make a greater effort to communicate an air of importance about I.S. work; they provide a

better physical setting; they make a greater effort to build I. S. stim-

ulants into classroom work; and they maintain a higher level of

student-teacher dialogue about independent study.

Students in successful programs report a greater feeling of

pressure on them with regard to their choice of I. S. activities.

They indicate an above-mean concern with every one of the

pressures identified on the questionnaire. In only 39 per cent of

the possible response areas do students in less successful programs

indicate above-mean concern.

Preparation of Students

All schools in the study provide a pre-school orientation

program for incoming students. All of the successful and half of

the less successful programs also follow this up with further orien-

tation after school starts.

In all schools, students who are not operating effectively in

independent study receive some attention in the counseling program.

These same students receive some additional help in all of the

successful schools, but in only one of the less successful. This

additional help most commonly is in the form of providing some way

of increasing individual student-teacher contact.

The data also indicate that students in the successful programs

receive more help from teachers, both in and out of class, in developing an understanding of the I.S. program.

Supervision of Students

Little difference in the amount of supervision provided students during I.S. time appears between the successful and the less successful programs. Successful programs, however, use more aides for supervision and tend to select them for their ability to provide services to students (i. e. , their ability to relate to students and their subject matter competency). Less successful programs use fewer aides, and tend to hire them for their ability to provide services for teachers (i. e. , their clerical skills).

Physical Facilities

Six generalizations about physical facilities have been drawn from the literature.

1) Facilities need to be such that students can have ready access to printed materials appropriate to their I.S. activities.

2) The same consideration needs to be given to accessibility of AV materials.

3) Suitable laboratory facilities must be available for I.S. work.

4) A physical atmosphere needs to be provided which is conducive to study.

5) Privacy for study needs to be provided, at least to the extent that the student can work without interference from others.

6) Students need some facilities where they can talk and work together.

A comparison of the physical facilities of successful schools with those of less successful schools shows that the use made of these facilities has a primary bearing on their adequacy for independent study. Some of the most attractive and potentially functional facilities are found in less successful programs. They do not function effectively because of policy regarding their use, the way they are equipped, or the kind of supervision provided with them.

When each of the above six criteria was rated by the researcher, the successful programs scored as follows: Good, 13; Fair, 4; Poor, 1; Non-existent, 0. Less successful programs received these scores: Good, 6; Fair, 13; Poor, 13; Non-existent, 4. It should be noted that the basic school structures seem to be adequate for developing appropriate I.S. facilities in most cases.

Material and Human Resources

A major point made in the literature dealing with material and human resources is that student interests and abilities will

cover a broad range and that this breadth must be reflected in the available resources -- printed materials, AV materials, and personnel. Another major point is that students must have ready accessibility to these resources with a minimum of red tape and a maximum of encouragement and assistance.

Both the quality and accessibility of collections in successful programs are superior to those of less successful programs. Human resources are also more heavily used in the better programs; greater use is made by students of their own teachers, other teachers, and out-of-school people as resources in their I.S. work.

Evaluation

The literature indicates that for meaningful evaluation of independent study, two considerations are important: (1) the total program, and (2) each student's independent study activity and growth.

All schools in the study collect at least subjective data about the total I.S. program. The successful schools utilize more objective data and tend to provide a more sophisticated evaluative procedure.

An even more distinct difference between the evaluation practices of the successful programs and those of the less

successful programs became apparent when teachers were asked to what extent students are aided in assessing their own progress. The responses from teachers in all of the successful programs fall substantially above the mean and those from teachers in all but one of the less successful programs fall substantially below the mean.

Staff In-Service Activities

The literature strongly implies that extensive in-service activity is necessary with the staff if an independent study program is to operate effectively, but no direction is given as to how this in-service activity should be carried out.

When teachers were asked to what extent ten different in-service activities had been used in connection with the independent study program in their schools, it became clear that substantially more in-service work had been done in successful programs. Ninety per cent of the possible response areas are above the mean in the better programs and 20 per cent are above the mean in less successful programs. No particular in-service activity stands out as being most effective.

Conclusions

1. The extent to which staff members gave attention to and were knowledgeable about program objectives was a factor in the success of the program.

2. When teachers were asked to identify the objectives which had received the greatest emphasis in the I.S. program in their schools, similar responses were received in the successful and in the less successful programs. Slightly more emphasis was placed on providing for individual student differences and on developing an inquiring mind in the successful programs.

3. The ability of teachers to identify sources of strong leadership in the independent study program was positively related to the success of that program.

4. The source of leadership was not as important as the fact that leadership existed. Teachers in successful I.S. programs identified three different sources of primary leadership--the principal, other administrators, and a committee of teachers.

5. Teachers in successful programs assumed greater leadership responsibilities than did those in less successful programs.

6. Successful programs provided more opportunities for each student to be engaged in learning activities uniquely fitted to his needs than did less successful programs. There was greater emphasis

on analysis of individual needs and more willingness to allow students

to deviate from the standard program.

7. Teachers in successful programs were provided with time to
work individually with students in their I.S. activities.

8. Successful programs placed slightly more limits on student
movements during I.S. time and were more consistent in enforcing these
limits than were less successful programs. (The most common limits
consisted of restricting student movement between study areas to the
passing time between modules and requiring students to stay on campus
during the school day.)

9. Successful schools deliberately built into the program a wide
variety of motivational techniques designed to stimulate student interest
in independent study activities.

10. Students in successful programs felt that greater pressure
was exerted on them to make productive use of their I.S. time than
did students in less successful programs. These pressures were
identified as coming from grades, teachers, parents, other adults,
and other students.

11. Students in successful programs received more help from
teachers, both in class and outside of class, in developing an under-
standing of the independent study program and adjusting to it.

12. The use of aides, selected for their ability to provide
assistance to students, increased the effectiveness of an

independent study program.

13. Suitable physical facilities were important but were provided without extensive remodeling in most existing school plants.

14. The ways in which physical facilities were used was as important as the actual design of those facilities.

15. Superior independent study programs provided students with easy accessibility to a good collection of printed and AV resources designed to take care of a broad range of interests and abilities.

16. Students in successful programs were given more encouragement by, and actually made more use of, their own teachers and other teachers in connection with their I.S. work than did students in less successful programs.

17. Teachers in successful programs provided more help for students in evaluating their own progress than did teachers in less successful programs.

18. Substantially greater effort was placed on in-service activities pertaining to the independent study program in successful programs than in less successful programs.

Recommendations

The ultimate purpose of this study was the identification of

characteristics which contribute to the development of successful secondary independent study programs. It is with this purpose in mind that the following recommendations are made.

Program Objectives

A continuous effort needs to be made to help teachers develop a thorough understanding of the objectives of the independent study program. This understanding should be complete enough so that it becomes a conscious basis on which decisions are made during daily student-teacher interactions.

Emphasis should be placed on three specific objectives: independent study as a means of (1) providing for individual differences among students; (2) developing an inquiring mind; and (3) developing self-initiative.

Staff Leadership

Leadership needs to be specifically developed for the independent study program. This leadership may emanate from sources such as the principal, another administrator, or from committees of teachers. The position of the source is not as important as is the teacher's ability to identify with it.

Whether or not teachers assume the primary leadership

position in the I. S. program, they should be encouraged to take an active leadership role.

General Organization for Instruction

The scheduling of students needs to be flexible enough so that any student's schedule may be adjusted as the need becomes apparent. A modular schedule and the use of team teaching may help provide this flexibility.

Great emphasis should be placed on the analysis of individual student needs, and teachers need to be willing to allow students to deviate from the standard program. This analysis may be aided by such practices as pretesting students to determine needs, releasing from specific classes students who demonstrate adequate mastery of those classes, offering enrichment courses during I. S. time, making contractual arrangements with students which allow these students to deviate from the standard program, and releasing students to outside educational agencies.

The schedule needs to be organized in such a way that teachers are free from regular classes at least one-third of the time and are available to work individually with students during much of that unscheduled time.

Independent Study Program Organization

Restrictions need to be placed on students' activities and move-
ments during I.S. time, at least to the extent that an effective
learning environment is maintained. These restrictions may include
requiring students to remain on campus throughout the regular school
day, limiting movement between study areas to certain times, and
controlling conduct in study areas. Limits which are placed on
students' I.S. activities should be no more restrictive than necessary,
but those regulations which are established should be enforced.

Origin of Study Activities

The student's independent study activities should be as indi-
vidualized as possible. To facilitate this individualization, the
small-group setting and teacher-student conferences may be used to
discuss I.S. activities.

Motivation Techniques

A wide variety of motivational techniques designed to stimulate
student interest in independent study activities needs to be built into
the program. These techniques should include extensive effort by
teachers to build I.S. stimulants into the regular classroom

activities, to provide means for recognizing outstanding I.S. accomplishments, to maintain an appropriate physical setting, and to encourage individual student-teacher conferences about independent study.

Preparation of Students

Orientation of students to the independent study program should occur, at least to some extent, while they are still in feeder schools and, to a greater extent, after they reach the high school. This orientation may include a specifically organized program for all students. A less formal, but equally important, orientation may be conducted by teachers as a part of the regular classroom activities.

Individual students who are not operating effectively in the I.S. program need to receive special attention. Counselors may provide some assistance to these students. Various means should also be used to increase individual contact between the student and his own teachers.

Supervision of Students

Because the students involved in independent study are adolescents with varying characteristics, some supervision is

necessary. Non-certified personnel should be utilized to some ex-
tent for this supervision. They should be selected because of their
ability to relate effectively to adolescents and because of their back-
ground in appropriate academic areas.

Physical Facilities

Independent study physical facilities need to provide students
with ready access to (1) printed and AV materials, (2) suitable
laboratory facilities, (3) an atmosphere which is conducive to study,
(4) reasonable privacy for study, and (5) opportunities to work to-
gether in groups. Specially built facilities are seldom necessary.
Emphasis should be placed on maximum use of existing facilities,
remodeling them as necessary.

Material and Human Resources

Students' interests and abilities will cover a broad range and
this breadth must be reflected in the available resources for I.S.
These resources should include printed materials, AV materials,
and personnel. These resources need to be readily accessible to
students with a minimum of red tape and a maximum of encourage-
ment and assistance. Special effort should be made to encourage
discussion between teachers and students about independent study
activities.

Evaluation

Students need help in evaluating their progress toward both short-range and long-range objectives in the independent study program. This necessity again focuses attention on the amount and the quality of individual student-teacher conferences.

Procedures should also be established for evaluating the effectiveness of the total I.S. program. These may include such techniques as analysis of test scores, follow-up of graduates, interviews, surveys, and observations.

Staff In-Service Activities

Major factors in the success of an independent study program are the understanding of program objectives developed by the staff and the development of the necessary teaching skills to achieve these objectives. Because of this, major emphasis needs to be placed on in-service work, particularly in the early stages of program development and implementation.

Recommendation for Further Study

This study was designed to identify general organizational characteristics which seem to have a bearing on the success of

independent study programs. At least 11 of the 12 areas investigated

seem to affect the quality of the programs. In no area does this

study thoroughly investigate all of the ramifications. Major assis-

tance could be provided practitioners by a more comprehensive in-

vestigation of any or all of the characteristic areas used as the

organizational basis for this study.

BIBLIOGRAPHY

Books

Association for Supervision and Curriculum Development. Balance in the Curriculum; 1961 Yearbook. Washington, D. C.: The Association, 1961.

Association for Supervision and Curriculum Development. New Insights and the Curriculum; 1963 Yearbook. Washington, D. C.: The Association, 1963.

Association for Supervision and Curriculum Development. Perceiving, Behaving, Becoming: A New Focus for Education; 1962 Yearbook. Washington, D. C.: The Association, 1962.

Barzun, Jacques. Teacher in America. Boston: Little Brown and Co., 1945.

Beggs, David W., and Buffie, Edward G., editors. Independent Study. Bloomington, Indiana: Indiana University Press, 1965.

Bonthius, Robert H.; Davis, James; Drushal, J. Garber; Guille, Frances V.; and Spencer, Warren P. The Independent Study Program in the United States. New York: Columbia University Press, 1957.

Bruner, Jerome S. On Knowing. Cambridge: The Belknap Press of Harvard University Press, 1962.

Bruner, Jerome S. The Process of Education. Cambridge: Harvard University Press, 1962.

Brusch, Charles W., and Reid, John L. High Schools Today and Tomorrow. New York: Reinhold Publishing Corp., 1957.

251

BIBLIOGRAPHY- Continued

Davis, Harold S., and Tompkins, Ellsworth. How to Organize an
    Effective Team Teaching Program. Englewood Cliffs, New
    Jersey: Prentice-Hall, Inc., 1966.

DeBernardis, Amo. Planning Schools for New Media. Portland,
    Oregon: Portland State College, 1961.

Evaluative Criteria. Washington D.C.: Cooperative Study of
    Secondary School Standards, 1960.

Parkhurst, Helen. Education on the Dalton Plan. New York:
    E. P. Dutton and Co., 1922.

Peterson, Carl H. Effective Team Teaching: The Easton Area High
    School Program. West Nyack, New York: Parker Publishing
    Company, Inc., 1966.

Search, Preston W. An Ideal School: or Looking Forward. New
    York: D. Appleton and Co., 1901.

Thelan, Herbert A. Education and the Human Quest. New York:
    Harper and Brothers, 1960.

Trump, J. Lloyd, and Baynham, Dorsey. Guide to Better Schools.
    Chicago: Rand McNally and Co., 1961.

Ward, Mary A., and others. "Individual System as Developed in the
    San Francisco State Teachers College," Adapting the Schools
    to Individual Differences; Twenty-fourth Yearbook of the
    National Society for the Study of Education. Bloomington,
    Illinois: Public School Publishing Co., 1925.

Washburne, Carleton W. Adjusting the School to the Child. New
    York: World Book Co., 1932.

Wertheimer, Max. Productive Thinking. New York: Harper and
    Brothers, 1959.

BIBLIOGRAPHY-Continued

Articles

"A Second Look at Trump-Norridge Revisted, " School Management, 8:56+, October, 1964.

Allen, Dwight W. "Individualized Instruction, " CTA Journal, 61:27-50, October, 1965.

Asbell, B. "Cape Kennedy High School for Sky, " Educational Digest, 29:26-8, January, 1964.

Barber, C. L. "More Power to Them; Independent Study Experiments, " Superior Student, 4:10-3, March, 1962.

Baskin, Samuel. "Experiment in Independent Study (1956-60), " Journal of Experimental Education, 31:183-5, December, 1962.

Baskin, Samuel; Keeton, M.; and Cohen, J. W. "Use of Independent Study Programs, " Journal of Higher Education, 33:103-6, February, 1962.

Beggs, David W. "The Decatur-Lakeview Plan, " Overview, 3:42-3, December, 1962.

Beggs, David W., and Olivero, James L. "A Place Out of Space . .   The Independent Study Carrell . . . and a Variety of Studies in Lakeview High School, Decatur, Illinois, " NASSP Bulletin, 46:193-202, January, 1962.

Berger, Sylvia. "A Language Laboratory Experiment, " High Points, 46:49-55, October, 1964.

Brannon, M. J. "Individual Mathematics Study Plan, " Mathematics Teacher, 55:52-6, January, 1962.

Brown, A. "Slow Children Learn Much from a Simple Creative Art Activity, " Instructor, 69:35, September, 1959.

BIBLIOGRAPHY- Continued

Campbell, Edward A. "New Spaces and Places for Learning, " The School Review, 68:346-52, Autumn, 1960.

Carr, J. B. "Project Freedom, " English Journal, 43:202-4, March, 1964.

Chase, Dave. "The School Library as an Instructional Materials Center, " Peabody Journal of Education, 41:81-5, September, 1963.

Congreve, Willard J. "Learning Center . . . Catalyst for Change?" Educational Leadership, 21:211-3, January, 1964.

Congreve, Willard J. "Teachers Develop Plan for Independent Study, " Chicago School Journal, 46, April, 1965.

Diederich, Paul B. "The Rutgers Plan for Cutting Class Size in Two, " English Journal, 44:229-36, April, 1960.

Diekhoff, J. S. "Teacher Go Home, " Saturday Review, 44:52-4, July 15, 1961.

Dixon, Fred B. "Independent Study, A Do It Yourself Program in English, " Clearing House, 36:556-8, May, 1962.

Fisher, Ilo. "The Library: The Hub of Learning, " Clearing House, 38:83-5, October, 1963.

Gray, G. "Educational Technology and the Individual Student, " Phi Delta Kappan, 46:6-8, September, 1964.

Griffin, William M. "The Wayland, Massachusetts, High School Program for Individual Differences, " NASSP Bulletin, 48:118-27, March, 1963.

Heller, Melvin P. "Outmoded Study Halls Give Way to Learning Centers, " Clearing House, 38:231-3, December, 1963.

BIBLIOGRAPHY- Continued

Herman, Jerry J. "Individualize Your Instruction by Contract Teaching, " Clearing House, 38:551-4, May, 1963.

Jordan, James A. "Socratic Teaching, " Harvard Educational Review, 32:96-104, Winter, 1963.

Lambert, Sam M. "Music and Art in the Public Schools, " Art Education, 16:5-14, December, 1963.

Largent, H.C., and Thacker, M. "Development of Independent Study Skills in American History Classes in Fairfield, " NASSP Bulletin, 43:260-3, January, 1959.

Marland, S.P., Jr. "Winnetka's Learning Laboratory, " Educational Leadership, 20:459, April, 1963.

Marquette, D. "Independent Study - Effective Program or Waste of Time ?" School Management, 8:124-5, September, 1964.

National Association of Secondary School Principals. The Bulletin: Locus of Change, Staff Utilization Studies, 46:entire issue, January, 1962.

Pedley, A.H. "Independent Study Program, " New York State Education, 51:18-9, May, 1964.

Ramstad, William K. "An Instructional System," Journal of Secondary Education, 38:17-20, January, 1963.

Reinert, Paul C. "We Hold These Truths," Educational Record, 43:38-43, January, 1962.

Shaw, Archibald B, and others. "Space for Individual Learning, " Overview, 4:30-40, March, 1963.

Spitzer, L. "Looking at Centers for Learning through Research Colored Glasses, " Educational Leadership, 21:21-3+, January, 1964.

BIBLIOGRAPHY-Continued

Stebbins, Marion. "Personalized Curriculum," Clearing House,
    38:205-9, December, 1963.

Story, M. L. "Let's Give Winnetka Another Chance," Education
    Forum, 27:99-102, November, 1962.

Suchman, J. R. "Inquiry Training: Building Skills for Autonomous
    Inquiry," Merrill Palmer Quarterly, 7:147-69, July, 1961.

Trump, J. Lloyd. "Basic Changes Needed to Serve Individuals
    Better," Educational Forum, 26:93-101, November, 1961.

Unstattd, J. G. "An Independent Study Plan," Journal of Higher
    Education, 6:143-8, March, 1935.

Washburne, Carleton. "An Eighty Year Perspective on Education,"
    Phi Delta Kappan, 45:145-50, December, 1963.

"What You Can Do About Overcrowded Classrooms," School
    Management, 21:54-8, August, 1964.

Pamphlets and Organizational Publications

Barchek, Jim. "Independent Study: Responsibility for Everyone,"
    Secondary Curriculum Reports. State Department of
    Education, Salem, Oregon, May, 1966.

Ellsworth, Ralph E., and Wagener, Hobart D. The School Library:
    Facilities for Independent Study in the Secondary School.
    Educational Facilities Laboratories, 477 Madison Ave.,
    New York 22, New York, 1963.

Ford Foundation. Time, Talent and Teachers. Ford Foundation,
    Office of Reports, 477 Madison Ave., New York 22, New
    York, 1960.

BIBLIOGRAPHY- Continued

Glathorn, Allen A., and Manone, Carl. A Program for the Gifted
Student in the Abington Senior High School. School District
of Abington Township, Abington, Pennsylvania, March, 1961.

Hatch, Winslow R., and Bennet, Ann. Independent Study. United
States Department of Health, Education, and Welfare,
Office of Education, Washington, D. C., 1960.

National Association of Secondary School Principals. The
Spotlight, January-February, 1965.

Strang, Ruth. Guided Study and Homework. National Education
Association, Washington, D. C., 1960.

Duplicated Materials

Keller, Charles R. "The Curriculum in Motion, " Talk given before
the New York State Association of Deans and Guidance
Personnel, New York, November 5, 1959. (mimeographed)

Trump, J. Lloyd. "Independent Study, " National Association of
Secondary School Principals, Washington, D. C., 1963.
(mimeographed)

Unpublished Studies

Allardice, David, and Duncan, William Franklin. "Intelligent Self
Direction in High School; An Analysis of the Effects upon
Students and Staff of a Pilot Study at Northport High School, "
An unpublished study: Project, Columbia University, 1962.

Dean, Ray Bartlett. "Individual Instruction in the Elementary and
Secondary Schools of the United States; 1888-1940, "
unpublished Doctoral dissertation, School of Education,
Leland Stanford Junior University, April, 1943.

BIBLIOGRAPHY- Continued

Griffin, William M. "A Study of the Relationship of Certain Characteristics of High School Seniors to Effectiveness in Independent Study," School of Education, Syracuse University, June, 1964.

Margarones, John Joseph. "Critical Requirements for Independent Study Based on Critical Incidents Reported by Instructors and Students," unpublished Doctoral dissertation, School of Education, Boston University, 1961.

APPENDICES

APPENDIX A

December 1, 1965

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon 97403

Dear Sir:

I am presently involved in a doctoral study of independent study programs under the direction of Dr. Arthur C. Hearn, Professor of Secondary Education, and with the cooperation of Dr. J. Lloyd Trump, Associate Director of the National Association of Secondary-School Principals.

The study will attempt to discover the characteristics of "successful" independent study programs, particularly those involving more than just the academically talented. By "independent study" we are referring to the kind of program which usually is a part of the large group, small group, independent study school organization. However, the school need not be involved in the large group, small group, flexible scheduling parts of the organization as long as students have periods of time during the regular school day when they are not assigned to regular classes, but rather have unassigned time during which they may pursue either assigned or unassigned studies on their own.

This study will eventually narrow down to an intensive case study of ten programs, but right now we must identify the total population. We are interested in schools where at least 50 percent of the students spend at least 20 percent of their in-school time in independent study. The schools should contain at least grades 10, 11, and 12, but may also contain other grades.

We would like your assistance in locating schools in your state which
should be investigated to see if they fit the limits of this study.
Enclosed is a form on which we would like you to enter the names and
addresses of schools which should be considered.

If you are in doubt as to whether or not a particular school meets the
criteria listed above, please list them anyway as we will contact all
schools to see if they actually do fall within the limits of the study.

We appreciate your assistance in identifying this population.

Sincerely yours,

Marvin L. Evans

MLE:dlw
Enclosures

On the following form please list high schools in your state having
independent study programs in which at least 50 percent of the students
spend at least 20 percent of their in-school time in the program.

Name of School	Address

APPENDIX B

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon 97403

Dear Sir:

We are in the process of setting up a research study of secondary
school independent study programs. Our task, right now, is to
identify schools whose programs fit within the definitions of this
study.

Dr. J. Lloyd Trump, Stanford University School of Education, the
State Directors of Secondary Education, and our own readings have
each suggested schools with independent study programs that should
be queried to see if they fall within our definitions. Your school is
one of those suggested.

By answering the following six questions you will enable us to deter-
mine whether or not your program does fall within the framework we
have established. After the total population has been identified, the
major collection of data will be done in ten schools. The final results
should indicate some guidelines which all secondary schools may use
to aid in the improvement of existing independent study programs or
the establishment of new programs.

We very much appreciate your taking time to respond to the follow-
ing six questions. Space has been provided at the end of each
question for your answer and any additional comments that you feel
might be helpful. When you have completed your answers, please
return the entire letter in the enclosed, self-addressed envelope.

Question I - Does your independent study program fit within the following general definition?

<u>Students have time during the regular school day assigned to independent study rather than to regular classes. During this time they may pursue study interests of their own or complete teacher assigned work. The program is characterized by freedom from constant supervision and implies the belief that all students possess potentialities for self-discipline, self-initiative, resourcefulness, productivity, and self-evaluation.</u> (This program differs from the usual study hall in that students have greater access to a variety of material and human resources and less restrictions on their movements.)

Our independent study program <u>does</u> fit within this definition. _____

Our independent study program <u>does not</u> fit within this definition. _____

Comments _____

_____

If your answer to "Question I" was an unqualified NO do not complete the remainder of the questions, but please return the letter. If your answer was YES or a qualified NO please complete the remaining questions.

Question II - What is your school enrollment in each of grades 9, 10, 11, and 12?

Grade 9 _____, Grade 10 _____, Grade 11 _____, Grade 12 _____

Comments _____

_____

Question III - Approximately what percentage of your students in each of grades 9, 10, 11, and 12 participate in the independent study program?

Grade 9 _____, Grade 10 _____, Grade 11 _____, Grade 12 _____

Comments _____

_____

Question IV - Approximately what percentage of a student's in-school time is spent in independent study in each of grades 9, 10, 11, and 12?

Grade 9 _____, Grade 10 _____, Grade 11 _____, Grade 12 _____

Comments _____

_____

Question V - How long has your independent study program actually been in operation? (Include this year in your answer.)

_____ years.

Comments _____

_____

Question VI - In terms of general academic aptitude, what ability groups participate in the independent study program? (Put a check mark in each of the appropriate spaces.)

Slow _____, Average _____, Fast _____

Comments _____

_____

Your answers to the above questions will enable us to identify the population which will be a part of our study. We do appreciate the time you have taken to respond.

Sincerely yours,

Marvin L. Evans

MLE:dlw
Enclosure

APPENDIX C

January 18, 1966

Dr. J. Lloyd Trump
Associate Secretary
NASSP
1201 16th Street N. W.
Washington, D. C. 20036

Dear Dr. Trump:

Since last communicating with you in October, 1965, I have moved
ahead with my plans for investigating ten selected high school
independent study programs. As you might have expected it has been
necessary to make some adjustments in the research design,
although the basic structure remains unchanged.

It is in connection with your expression of willingness to serve on a
panel of experts, which now includes Dr. Lloyd Michael, Dr. J. Paul
Anderson, Dr. Robert Bush, and Dr. Dwight Allen, that I am now
contacting you.

As you may recall, the study will compare the characteristics of five
successful and five less successful high school independent study
programs. Essentially, I am attempting to identify the program
characteristics represented in each quality group and determine the
relationships between these characteristics and the effectiveness of
the programs. The task of the panel is to assist in placing programs
in the two quality groups.

The study is limited to schools which contain some combination of
grades 9, 10, 11, and 12 and have at least 50 percent of their
senior class active in the independent study program. I have also
eliminated programs which have only average and fast students
involved. Because of these limitations there have been 23 programs
identified rather than the 40 I had hoped for. As a result of this
smaller population, it seemed advisable to make some adjustments

266

in the procedure for making the final selection of the ten schools to be studied. In the first letter to you I had proposed that you nominate, in rank order, eight successful and ten less successful programs. This would have left a buffer group of some 22 programs separating your two groups of nominees. Because this buffer group has been reduced to five, and because you may not be familiar enough with all of the programs in the population to consider them for nomination, it seemed advisable to get your recommendations in a somewhat different form.

I have now prepared a sheet for each identified program on which provision has been made for recording the following kinds of information.

1. Your sources of knowledge about the quality of that school's independent study program. (In most cases you will probably want to check more than one box.)

2. Your evaluation of the extent to which students in that school successfully achieve each of six objectives.

3. An overall evaluation of the relative success of that school's total independent study program.

4. Comments about that school and the quality of its independent study program that you believe might aid in placing it in the proper quality group or in collecting meaningful data about its characteristics may be written on the back of each sheet.

There are a few extra sheets included which may be used to add any additional programs which you think might properly fit into this study.

At the risk of being repetitious, let me assure you that this information will be held in strict confidence. The schools to be studied will not be informed as to their relative position and will not be identified with any quality rating in the dissertation.

Because I hope to start my data collecting trips to the schools on March 19, and because of the time needed to make all the necessary arrangements with the schools to be studied, I hope to select the final sample about February 1. I have enclosed an envelope in which the materials may be returned.

I will, of course, supply you with a report of the findings of this study as well as additional information of interest which might not be appropriate for the formal report. (For example, I now have information on about 75 schools which operate some kind of an independent study program.)

I realize that the 45 minutes to an hour necessary to record this information is a major imposition on your already limited time. I am very appreciative. I do believe that as a result of your help, and that of others who are also involved, that some worthwhile data will be made available to the profession.

Sincerely yours,

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon 97403

P.S. The screening criteria used in selecting the schools required that the independent study program be in at least its second year of operation.

SCHOOL_____ADDRESS_____

PRINCIPAL_____

Please indicate your sources of knowledge about the quality of the independent study program in this school.

☐ Have visited the school.

☐ Have highly reliable reports from others.

☐ Have adequate reports from others.

☐ Have seen objective data pertaining to the level of success of this program.

☐ Have read of the school's independent study program or have received hearsay information.

☐ Have no qualitive knowledge of this program.

Please indicate the extent to which you believe students in this school have successfully achieved the following objectives. (Circle the most appropriate answer.)

Students accept individual responsibility for learning rather than merely following the directions of others, i.e., are motivated to identify and attack problems.	Very much Considerably Moderately Little Don't know
Students attempt creative work.	Very much Considerably Moderately Little Don't know
Students evaluate their own learning.	Very much Considerably Moderately Little Don't know
Students make effective use of human and material resources in their learning activities.	Very much Considerably Moderately Little Don't know

Students make productive use of independent study time.	Very much Considerably Moderately Little Don't know
Students accept, successfully, responsibility for their own conduct during independent study time.	Very much Considerably Moderately Little Don't know

By comparing this independent study program with others with which you are familiar please give one overall indication of this program's relative success in getting students to perceive worthwhile things to do, personalize learning, exercise self-discipline, make use of material and human resources, produce results, and strive for improvement.	Outstanding Above average Average Below average Weak

February 26, 1966

Dear Dr.

You may recall having completed a short questionnaire for us in
December or January regarding the nature of your independent study
program. We explained that we were in the process of setting up a
research study designed to identify those characteristics which lead
to successful independent study programs.

We have made a nation-wide search to identify programs which fit the
definitions in the study. This involved contacts with every state
department director of secondary education, several colleges and
universities, and about 150 individual high schools. The names of the
appropriate schools were then submitted to a panel of experts con-
sisting of Dr. J. Lloyd Trump, Dr. Robert Bush, Dr. Dwight Allen,
Dr. Lloyd Michael, and Dr. J. Paul Anderson. As a result of their
recommendations ten schools have been identified in which we will
like to do our actual collection of data.

Your school is one of the ten selected.

We anticipate that, as a result of this study, guidelines to successful
independent study programs can be made available both to schools
now involved in this kind of activity and to those considering involve-
ment. More specifically, we will be collecting data on 14 aspects
(i. e., characteristic areas) of each of the ten independent study
programs. (See the enclosed Table I for a brief description of these
areas.) As a participating school you will, of course, receive a
complete copy of the final report. In addition to this, and perhaps
of equal value, we hope to collect other information which is not a
part of the formal study but which will be made available to you.
This might include techniques which have been effective with the
students, staff, or community; how particular problems have been
resolved; unique facilities, equipment or materials; or any other
information items which might be useful to people on the "firing
line."

The necessary effort on the part of your school is as follows:

    1. Complete the enclosed information sheet and return it to us immediately.

    2. Supply additional information, if it is necessary, to aid in organizing the visitation.

    3. Host a three day visit in your school by myself during which time data will be collected from administrators, teachers, students and certain specialists. Following is a <u>possible</u> schedule of activities for those three days.

First Day:
a. A three hour interview with an administrator who is thoroughly familiar with the development and operation of the independent study program. This interview does need to precede the other collection of data.
b. A one hour meeting with the administrative staff. It will take less than half an hour to collect the data and the remaining time can be used to share information with you about other programs I have seen.
c. A one and one half hour interview with the librarian.
d. A one and one half hour meeting with the faculty after school. (Either first or second day)
e. Sometime during the first day, by referring to student schedules and I. Q. test scores, 48 students need to be identified from each class. This should take about two hours and some help from a counselor or secretary who knows your records would be very helpful.

Second and Third Days: (Very flexible)
a. One hour with each group of 48 students during which time they will complete a questionnaire. This is probably the greatest imposition since it will probably require some loss of class time by those involved.
b. A one and one half hour interview with the staff member responsible for your audio visual equipment and materials.
c. This leaves about one full day for observations and the sharing with you of information about other independent study programs I have observed.

We hope to complete the collection of data for this study during the current school year. This means that we must begin our visitations by the fourth week in March. This also means that we need to hear from you as soon as possible to allow time to establish our data

collection schedule and make the necessary arrangements. Enclosed you will find a sheet with which to respond and which also requests certain kinds of information needed to set up the study in your school. This sheet, along with any appropriate enclosures may be returned in the envelope provided.

We are pleased that your school was one of those selected by our panel of experts and hope that you will be able to participate in the study.

Sincerely yours,

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon

<u>INFORMATION SHEET</u>
to be returned to

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon 97403

Name of school_____

Complete address_____

_____

_____

Telephone number_____

Name of principal_____

The name of an administrator who is thoroughly familiar with the
development and operation of your independent study program.
This individual would be my contact in the school to help arrange
the visitation and be a prime source of information during the
visitation.

Name_____

Position_____

The complete name and description of the latest group I.Q. test(s)
from which you have scores for your students. Please indicate for
each grade level.

9th_____

_____

10th_____

_____

11th _____

_____

12th _____

_____

Please return, with this sheet, a copy of your school calendar covering March 14 through May 27. Indicate days on which your school is not in session and days which would not be satisfactory for the visitation because of major activities, etc.

The following information would be extremely helpful in preparing for the visitation and can, perhaps, be sent in a separate mailing.

1. A roster of your staff and their assignments.
2. A map of your building.
3. Any printed literature describing your independent study program.
4. Sample copies of what you would consider to be typical student and teacher schedules.

Name and position of the person completing this form:

_____   _____
       Name   Position

APPENDIX E

STUDENT'S ANSWER SHEETS

Student Number $\overline{(1)}$ $\overline{(2)}$ $\overline{(3)}$ $\overline{(4)}$ $\overline{(5)}$

School   1 2 3 4 5 6 7 8 9 10

Group   1 2 3 4 5 6 7 8 9 10 11 12

---

(6) What year are you in school?

1	Senior
2	Junior
3	Sophomore
4	Freshman

---

(7) Male or female?

| 1 | Male |
| 2 | Female |

---

(8) Approximately what percentage of your time during the school day is unscheduled or assigned to independent study time?

1	None
2	10%
3	15%
4	20%
5	25%
6	30%
7	35%
8	40%
9	45%
10	50% or more

---

(9) Did you enter this school from a grade school or junior high school in this district?

| 1 | YES |
| 2 | NO |

---

(10) How many years have you been assigned independent study time in this school?

1	One
2	Two
3	Three
4	Four

The following questions are designed to get information about
the independent study program in your school. You will be given an
explanation of the kinds of information we are looking for before you
begin work on each section. Please do not start any section until you
have received the explanation.

When you are asked to choose between YES or NO or between
Greatly, Moderately, Little, or Not at all, circle the number in
front of the answer which most closely expresses your opinion. In
a few cases you will be asked to fill in a blank with an answer or
write a short paragraph.

In most cases space has been provided so that you may enlarge
upon an answer if you feel this would be helpful to us. Please feel
free to ask for clarification at any time if a question is not clear.

STUDENTS

Program Objectives

(15) To what extent have your teachers talked with you about why you have so much time during the school day when you are not required to be in class?

1 Greatly
2 Moderately
3 Little
4 Not at all

To what extent do you think the following are the purposes of your independent study time?

(16) To give you the opportunity to learn to do things on your own

1 Greatly
2 Moderately
3 Little
4 Not at all

(17) To give you more time to learn about the things you are interested in

1 Greatly
2 Moderately
3 Little
4 Not at all

(18) To give the teachers more time to prepare for their classes

1 Greatly
2 Moderately
3 Little
4 Not at all

(19) To give you time to do the assignments your teachers have given you

1 Greatly
2 Moderately
3 Little
4 Not at all

(20) To give you more time to relax

1 Greatly
2 Moderately
3 Little
4 Not at all

STUDENTS - 2

---

(21) Other _____

1 Greatly
2 Moderately
3 Little
4 Not at all

Independent Study Program Organization

Write a paragraph telling what a student's responsibilities are in the independent study program. Include such things as conduct, supervision of other students, choosing how you will spend your time, what you will study, etc. You may use the back of the paper also.

Origin of Study Activities
(These should add up to 100%)

(22) What percentage of your independent study time is spent doing specific assignments your teachers have given you? (That is, read certain pages in a certain book or write a paper on a particular topic.)

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 None

(23) What percentage of your independent study time is spent doing more general kinds of assignments your teachers have given you? (That is, "Do some reading on this topic," or "Write a paper on a topic of your choice.")	1	10%
	2	20%
	3	25%
	4	30%
	5	35%
	6	40%
	7	50%
	8	60%
	9	70%
	10	80%
	11	None

(24) What percentage of your independent study time is spent studying things just because you want to do them?	1	10%
	2	20%
	3	25%
	4	30%
	5	35%
	6	40%
	7	50%
	8	60%
	9	70%
	10	80%
	11	None

(25) What percentage of your independent study time is spent taking part in the activity program? (That is, sports, student government, clubs, etc.)	1	5%
	2	10%
	3	15%
	4	20%
	5	25%
	6	30%
	7	35%
	8	40%
	9	45%
	10	50%
	11	None

STUDENTS - 4

(26) What percentage of your independent study time is spent just "goofing off?"

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 None

(27) What percentage of your independent study time is spent studying things you and your teachers have agreed upon during a face-to-face conference.

1 10%
2 20%
3 30%
4 40%
5 50%
6 60%
7 70%
8 80%
9 90%
10 100%
11 None

(28) What percentage of your independent study time is spent doing something not included in the six questions before this?

What?

1 5%
2 10%
3 15%
4 20%
5 25%
6 30%
7 35%
8 40%
9 45%
10 50% or more
11 None

STUDENTS - 5

Motivation Techniques

To what extent are your activities during independent study time done because of:

(29) Pressure of grades

1 Greatly
2 Moderately
3 Little
4 Not at all

(30) Other kinds of teacher pressure

1 Greatly
2 Moderately
3 Little
4 Not at all

(31) Your own interest in the work you are doing

1 Greatly
2 Moderately
3 Little
4 Not at all

(32) Being observed by teachers or other staff members

1 Greatly
2 Moderately
3 Little
4 Not at all

(33) Pressure from other students

1 Greatly
2 Moderately
3 Little
4 Not at all

(34) Pressure from parents

1 Greatly
2 Moderately
3 Little
4 Not at all

STUDENTS - 6

(35) Other	1 Greatly
	2 Moderately
	3 Little
	4 Not at all

Preparation of Students

| (36) To what extent did you understand what you were to do during your independent study time before you started in this school? | 1 Greatly
2 Moderately
3 Little
4 Not at all |

| (37) To what extent did the teachers in this school help you to understand the independent study program? | 1 Greatly
2 Moderately
3 Little
4 Not at all |

| (38) To what extent did the other students in this school help you to understand the independent study program? | 1 Greatly
2 Moderately
3 Little
4 Not at all |

APPENDIX F

TEACHER'S DATA SHEETS

(1) School 1 2 3 4 5 6 7 8 9 10

(5-12) Subjects taught   Subject   Percent of your time

_____   _____%

_____   _____%

_____   _____%

_____   _____%

(13-16) Percentage of your students who are:

9th graders _____%   11th graders _____%

10th graders _____%   12th graders _____%

(17) Number of years teaching experience _____

(18) Number of years in this school _____

(19) Number of years taught in schools without independent study

programs _____

(20) Number of years taught in this school with the independent

study program _____

(21) Male _____ Female _____

The following questions are designed to get information about the independent study program in your school. You will be given an explanation of the kinds of information we are looking for before you begin work on each section. Please do not start any section until you have received the explanation.

When YES or NO responses or qualitative judgments are requested, circle the number in front of the answer which most closely reflects your judgment. In a few cases you will be asked to fill in a blank with an answer or write a short paragraph.

In most cases space has been provided so that you may enlarge upon an answer if you feel this would be helpful to us. Please feel free to ask for clarification at any time if a question is not clear.

TEACHERS

Program Objectives

(22) Are there written objectives for the independent study program in your school?	1 YES 2 NO

(23) Do you have your own copy?	1 YES 2 NO

(24) If you are not aware of the existence of written objectives for the independent study program are you aware of administratively accepted objectives?	1 YES 2 NO

(25) To what extent are you knowledgeable about the written or understood objectives?	1 Greatly 2 Moderately 3 Little 4 Not at all

(26) To what extent have program objectives, whether or not they are written, been discussed with you by the administration or their representatives?	1 Greatly 2 Moderately 3 Little 4 Not at all

(27) To what extent do you apply these in your work with students?	1 Greatly 2 Moderately 3 Little 4 Not at all

To what extent has each of the following been emphasized to you as being an important objective of the independent study program in your school?

(28) Develop creativity	1 Greatly 2 Moderately 3 Little 4 Not at all

TEACHERS - 2

(29) Develop inquiring mind	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

(30) Develop self-discipline	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

(31) Develop self-initiative	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

(32) Develop resourcefulness	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

(33) Develop self-evaluation skills	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

(34) Develop research skills	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

(35) Provide for individual differences	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

TEACHERS - 3

(36) Free teacher's time	1 Greatly
	2 Moderately
	3 Little
	4 Not at all

(37) Other _____	1 Greatly
	2 Moderately
	3 Little
	4 Not at all

(38) Other _____	1 Greatly
	2 Moderately
	3 Little
	4 Not at all

(39) Other _____	1 Greatly
	2 Moderately
	3 Little
	4 Not at all

Leadership

To what extent does leadership in the
independent study program emanate from the
following?

(40) Principal	1 Greatly
	2 Moderately
	3 Little
	4 Not at all

(41) Designated director	1 Greatly
	2 Moderately
	3 Little
	4 Not at all

TEACHERS - 4

(42) Other administrator	1	Greatly
	2	Moderately
Who? _____	3	Little
	4	Not at all

(43) Department chairmen	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

(44) A specific teacher	1	Greatly
	2	Moderately
Who? _____	3	Little
	4	Not at all

(45) A specific group of teachers	1	Greatly
	2	Moderately
Who? _____	3	Little
	4	Not at all

(46) Other _____	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

(47) Other _____	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

TEACHERS - 5

Independent Study Program Organization

To what extent do the following personnel have
influence in the selection of resources for use
in study areas other than the library?

(48) Building administration

1 Greatly
2 Moderately
3 Little
4 Not at all

(49) Department chairmen

1 Greatly
2 Moderately
3 Little
4 Not at all

(50) Teachers

1 Greatly
2 Moderately
3 Little
4 Not at all

(51) Students

1 Greatly
2 Moderately
3 Little
4 Not at all

(52) Librarian

1 Greatly
2 Moderately
3 Little
4 Not at all

(53) Non-certified personnel

1 Greatly
2 Moderately
3 Little
4 Not at all

TEACHERS - 6

(54) District supervisors or directors	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

(55) Other	1	Greatly
	2	Moderately
Who?_____	3	Little
	4	Not at all

Please write a summary of the responsibilities of teachers in the independent study program.

Origin of Study Activities

(56) To what extent do you believe the student's study activities should originate from classroom assignments?	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

TEACHERS - 7

(Answers to questions 57-62 should add up to 100%)

(57) What percentage of a student's independent study time is spent doing specific assignments teachers have given him?

1   10%
2   20%
3   30%
4   40%
5   .50%
6   60%
7   70%
8   80%
9   90%
10   None

(58) What percentage of a student's time is spent doing more general kinds of assignments teachers have given him? (That is, "Do some reading on this topic," or "Write a paper on a topic of your choice.")

1   10%
2   20%
3   25%
4   30%
5   35%
6   40%
7   50%
8   60%
9   70%
10   80%
11   None

(59) What percentage of a student's independent study time is spent studying things just because the student wants to do them?

1   10%
2   20%
3   25%
4   30%
5   35%
6   40%
7   50%
8   60%
9   70%
10   80%
11   None

TEACHERS - 8

(60) What percentage of a student's independent study time is spent taking part in the activity program? (That is, sports, student government, clubs, etc.)

1	5%
2	10%
3	15%
4	20%
5	25%
6	30%
7	35%
8	40%
9	45%
10	50%
11	None

(61) What percentage of a student's independent study time is spent just "goofing off?"

1	10%
2	20%
3	30%
4	40%
5	50%
6	60%
7	70%
8	80%
9	90%
10	None

(62) What percentage of a student's independent study time is spent doing something not included in the five questions before this?

1	5%
2	10%
3	15%
4	20%
5	25%
6	30%
7	35%
8	40%
9	45%
10	50%
11	None

(Answers to questions 63-67 should add up to 100%)

(63) What percentage of the independent study time assignments you give students originate in the large group?	1 10% 2 20% 3 30% 4 40% 5 50% 6 60% 7 70% 8 80% 9 90% 10 100% 11 None
(64) What percentage of the independent study time assignments you give students originate in the small group?	1 10% 2 20% 3 30% 4 40% 5 50% 6 60% 7 70% 8 80% 9 90% 10 100% 11 None
(65) What percentage of the independent study time assignments you give students originate in medium or traditional size classes?	1 10% 2 20% 3 30% 4 40% 5 50% 6 60% 7 70% 8 80% 9 90% 10 100% 11 None

(66) What percentage of the independent study
time assignments you give students originate
in one-on-one conferences with the students ?

1   10%
2   20%
3   30%
4   40%
5   50%
6   60%
7   70%
8   80%
9   90%
10 100%
11 None

(67) What percentage of the independent study
time assignments you give students originate
in some way not included in the four preceeding
questions ?

1   10%
2   20%
3   30%
4   40%
5   50%
6   60%
7   70%
8   80%
9   90%
10 100%
11 None

Motivation Techniques

(68) To what extent do you use grades to motivate
student interest in independent study work ?

1   Greatly
2   Moderately
3   Little
4   Not at all

(69) To what extent do you depend on the student's
own interests and self-motivation to encourage
efforts in independent study ?

1   Greatly
2   Moderately
3   Little
4   Not at all

TEACHERS - 11

---

(70) To what extent do you deliberately build into the student's classroom experiences factors designed to stimulate interest in independent study activities?

1 Greatly
2 Moderately
3 Little
4 Not at all

How? _____

Indicate other motivation techniques you use to motivate student interest in independent study activities.

(71) _____

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(72) _____

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(73) _____

1 Greatly
2 Moderately
3 Little
4 Not at all

TEACHERS - 12

Preparation of Students

(74) To what extent do your feeder schools prepare students to participate effectively in your independent study program?

1 Greatly
2 Moderately
3 Little
4 Not at all

(75) To what extent do the feeder schools provide a special program to help prepare students for the independent study program?

1 Greatly
2 Moderately
3 Little
4 Not at all

(76) To what extent do you devote class time to helping prepare students to make good use of independent study time?

1 Greatly
2 Moderately
3 Little
4 Not at all

(77) To what extent are you available to work individually with students concerning their independent study work?

1 Greatly
2 Moderately
3 Little
4 Not at all

(78) To what extent do students take advantage of the opportunity to work with you individually, without coercion?

1 Greatly
2 Moderately
3 Little
4 Not at all

(79) To what extent do you force students to spend time with you individually, concerning independent study work?

1 Greatly
2 Moderately
3 Little
4 Not at all

How? _____

TEACHERS - 13

Supervision of Students

(22) What percentage of your non-instructional time is used to supervise students engaged in independent study ?

1 10%
2 20%
3 25%
4 30%
5 35%
6 40%
7 50%
8 60%
9 70%
10 80%
11 None

Material and Human Resources

(23) To what extent are students encouraged to use staff members, from whom they are not taking classes, as resource people ?

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(24) To what extent do students use staff members, from whom they are not taking classes, as resource people: Why or why not ?

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(25) Is there a formally organized program to familitate and/or motivate student use of staff members as resource people ?

1 YES
2 NO

Describe _____

TEACHERS - 14

---

(26) To what extent are students encouraged to use people in the community as resource people?

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(27) To what extent do students use people in the community as resource people?

1 Greatly
2 Moderately
3 Little
4 Not at all

---

(28) Is there a formally organized program to facilitate and/or motivate student use of people in the community as resource people?

1 YES
2 NO

Describe _____

We have already talked with the people in charge of library and audio visual resources. With the exception of those two areas and those covered by the preceeding questions in this section, what other kinds of material or human resources are utilized by students for independent study?

(29) Who or what? _____

1 Greatly
2 Moderately
3 Little
4 Not at all

TEACHERS - 15

Attitudes Toward Program

We would like to know what you think about the following
statements. Indicate the extent to which you agree or
disagree by placing a check mark in the appropriate box

1. As compared to students in schools without independent
study programs our students have a better chance to:

	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
(30) Develop creativity						
(31) Develop an inquiring mind						
(32) Develop self-discipline						
(33) Develop self-initiative						
(34) Develop resourcefulness						
(35) Develop self-evaluation skills						
(36) Develop research skills						
(37) Be accomodated for individual differences						

2. As compared to schools without independent study
programs, this school:

	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
(38) Makes better use of the teacher's time						
(39) Has fewer classroom discipline problems						
(40) Has less serious classroom discipline problems						
(41) Has fewer outside of class discipline problems						
(42) Has less serious outside of class discipline problems						

TEACHERS - 16

| (43) A regular and systematic procedure is followed to evaluate the success of the independent study program. | 1 YES
2 NO |

| (44) To what extent is teacher effectiveness in the independent study program evaluated?

How? _____ | 1 Greatly
2 Moderately
3 Little
4 Not at all |

| (45) To what extent are students aided in evaluating their own progress in terms of both short and long-range objectives?

How? _____ | 1 Greatly
2 Moderately
3 Little
4 Not at all |

| (46) To what extent are counselors involved in evaluation of student progress?

How? _____ | 1 Greatly
2 Moderately
3 Little
4 Not at all |

---

(47) To what extent do you feel that a better job of educating students is done with the independent study program than could be done without it?

1 Greatly
2 Moderately
3 Little
4 Not at all

Staff In-Service

To what extent are staff members given assistance, and/or time, to improve the independent study program by the following means?

(48) Regular faculty meetings

1 Greatly
2 Moderately
3 Little
4 Not at all

(49) Special meetings during the school year

1 Greatly
2 Moderately
3 Little
4 Not at all

(50) Extended Contracts

1 Greatly
2 Moderately
3 Little
4 Not at all

(51) Individual Conferences

1 Greatly
2 Moderately
3 Little
4 Not at all

(52) University workshops

1 Greatly
2 Moderately
3 Little
4 Not at all

(53) Use of resource people

1 Greatly
2 Moderately
3 Little
4 Not at all

(54) Special assistance to new teachers	1	Greatly
	2	Moderately
	3	Little
	4	Not at all
(55) Printed materials - commercial	1	Greatly
	2	Moderately
	3	Little
	4	Not at all
(56) Printed materials - staff devised	1	Greatly
	2	Moderately
	3	Little
	4	Not at all
(57) Assistance from other teachers	1	Greatly
	2	Moderately
	3	Little
	4	Not at all
(58) Other _____	1	Greatly
	2	Moderately
	3	Little
	4	Not at all

We are interested in knowing what your attitudes and evaluations are of any part or of the total independent study program. On the remainder and back of this sheet will you please indicate, in essay or list form, your likes, dislikes and evaluations of the program or any of its parts.

APPENDIX G

ADMINISTRATIVE DIRECTOR'S DATA SHEETS

School 1 2 3 4 5 6 7 8 9 10

Official title _____

Duties:

Responsibility in independent study program:

Professional experience:

This is the instrument which will guide the interview with the
functional director of the independent study program. The inter-
view will be conducted and recorded by the researcher.

ADMINISTRATIVE DIRECTOR

Program Objectives

1.	Are there written objectives for the independent study program in this school? (Get a copy)	YES NO
2.	If not, are there specifically recognized objectives?	YES NO
3.	To what extent have these been discussed with the staff?	Greatly Moderately Little Not at all
4.	To what extent is the staff knowledgeable about them?	Greatly Moderately Little Not at all
5.	To what extent do they apply these in their work?	Greatly Moderately Little Not at all

To what extent has each of the following been emphasized to the staff as being an important objective of the independent study program in your school?

6.	Develop creativity	Greatly Moderately Little Not at all
7.	Develop inquiring mind	Greatly Moderately Little Not at all

ADMINISTRATIVE DIRECTOR - 2

8. Develop self-discipline		Greatly Moderately Little Not at all
9. Develop self-initiative		Greatly Moderately Little Not at all
10. Develop resourcefulness		Greatly Moderately Little Not at all
11. Develop self-evaluation skills		Greatly Moderately Little Not at all
12. Develop research skills		Greatly Moderately Little Not at all
13. Provide for individual differences		Greatly Moderately Little Not at all
14. Free the teacher's time		Greatly Moderately Little Not at all

15. Other _____

Greatly
Moderately
Little
Not at all

16. Other _____

Greatly
Moderately
Little
Not at all

17. Other _____

Greatly
Moderately
Little
Not at all

Leadership

18. Is one individual charged with supplying leadership for the independent study program?

YES
NO

Who? _____

19. Does he have time allotted?

YES
NO

How much? _____

20. Is a particular group charged with this responsibility?

YES
NO

Who? _____

ADMINISTRATIVE DIRECTOR - 4

To what extent does leadership in the independent study program emanate from the following?

21. Principal	Greatly Moderately Little Not at all

22. Designated director	Greatly Moderately Little Not at all

23. Other administrator Who? _____	Greatly Moderately Little Not at all

24. Department chairmen	Greatly Moderately Little Not at all

25. A specific teacher Who? _____	Greatly Moderately Little Not at all

26. A specific group of teachers Who? _____	Greatly Moderately Little Not at all

27. Other _____ __ Greatly
Moderately
Little
Not at all

28. Other _____ Greatly
Moderateiy
Little
Not at all

General Organization for Instruction

29. Do you operate on a modular schedule? YES
NO

30. Length of modules? _____ minutes

31. Number of modules per day? _____

Typical number of minutes per week of large group for	32.	seniors	_____
	33.	juniors	_____
	34.	sophomores	_____
	35.	freshmen	_____
	36.	teachers	_____

Typical number of minutes per week of small group for	37.	seniors	_____
	38.	juniors	_____
	39.	sophomores	_____
	40.	freshmen	_____
	41.	teachers	_____

Typical number of minutes per week of independent study for	42.	seniors	_____
	43.	juniors	_____
	44.	sophomores	_____
	45.	freshmen	_____
	46.	teachers	_____

Typical number of minutes per   47. seniors _____
week of laboratory for   48. juniors _____
                                    49. sophomores _____
                                    50. freshmen _____
                                    51. teachers _____

Comments on the preceeding four questions

52. Does your program include team teaching ?   YES
                                                     NO

    Explanation

53. Do you operate on a traditional schedule ?   YES
                                                     NO

54. Number of periods per week _____

55. Length of periods _____

56. How is independent study time scheduled for students ?

Number of minutes per week consumed for required courses for	57. seniors 58. juniors 59. sophomores 60. freshmen	_____ _____ _____ _____

Number of minutes per week consumed for forced electives for	61. seniors 62. juniors 63. sophomores 64. freshmen	_____ _____ _____ _____

65. How much time per week does the typical teacher have during which he has no specific assignment? _____

(If possible, get copies of schedules of students and teachers used in the sample.)

Independent Study Program Organization

What percentage of a student's time is available for independent study in each ability group at each grade level?	66. senior - high 67. senior - average 68. senior - low 69. junior - high 70. junior - average 71. junior - low 72. sophomore - high 73. sophomore - average 74. sophomore - low 75. freshman - high 76. freshman - average 77. freshman - low	____% ____% ____% ____% ____% ____% ____% ____% ____% ____% ____% ____%

78. Are students moved in or out of the program   YES
     for disciplinary reasons ?   NO

ADMINISTRATIVE DIRECTOR - 8

---

79. Are students moved in or out of the program   YES
    because of achievement record?   NO

---

80. Are students moved in or out of the program   YES
    for any other reason?   NO

    If yes, what reasons? (explain)

---

81. Who is in charge of study centers?
    (General organization and administration)

---

82. Are non-certified personnel used in connection   YES
    with the independent study program?   NO

    How many and in what ways? _____

---

83. Who directs these non-certified people?

---

84. What are the independent study program responsibilities of department chairmen?

85. What are the independent study program responsibilities of teachers?

86. What are the independent study program responsibilites of students?

87. What are the independent study program responsibilities of the librarian?

88. What are the independent study program responsibilities of the audio visual director?

89. Are small blocks of independent study time avoided?   Explain

To what extent do the following personnel have influence in the selection of resources for use in study areas other than the library?

90. Building administration

Greatly
Moderately
Little
Not at all

91. Department chairmen

Greatly
Moderately
Little
Not at all

92. Teachers

Greatly
Moderately
Little
Not at all

93. Students

Greatly
Moderately
Little
Not at all

94. Librarian

Greatly
Moderately
Little
Not at all

95. Non-certified personnel

Greatly
Moderately
Little
Not at all

96. District supervisors or directors

Greatly
Moderately
Little
Not at all

97. Other _____   Greatly
                                                                Moderately
                                                                Little
                                                                Not at all

Origin of Study Activities

98. According to the objectives of the program,   Greatly
     to what extent should the students'   Moderately
     independent study activities result from   Little
     classroom assignments ?   Not at all

Motivation Techniques

99. Are students' independent study efforts   YES
     evaluated to determine whether or not they   NO
     should continue to have independent study
     time ?

     If so, how does this system operate ?

100. What procedures are built into the program to stimulate student
     interest in independent study work ?

101. Is the student council (or other student group) used to stimulate cooperation and/or motivation in the independent study program?

YES
NO

Describe

Preparation of Students

102. To what extent do your feeder schools prepare students to participate effectively in your independent study program?

Greatly
Moderately
Little
Not at all

How?

103. To what extent do the feeder schools provide a special program to help prepare students for the independent study program?

Greatly
Moderately
Little
Not at all

---

104. Does this schools provide an orientation
program, at least a part of which is devoted
to the independent study program?

        YES
        NO

    Describe?

---

105. Is special assistance provided, on an
organized basis, for students who are not
making good use of independent study time?

        YES
        NO

    Describe

Supervision of Students

106. Do students have to be in a particular place
during their independent study time?

        YES
        NO

---

107. Do students have to specify the place in which
they will spend their independent study time?

        YES
        NO

---

108. Is there a relaxation area for students to
use during independent study time?

        YES
        NO

ADMINISTRATIVE DIRECTOR - 14

109. To what extent are students supervised in study areas ?	Greatly Moderately Little Not at all
By whom ?	
110. Teachers	Greatly Moderately Little Not at all
111. Non-certified personnel	Greatly Moderately Little Not at all
112. Other students	Greatly Moderately Little Not at all
113. Other_____	Greatly Moderately Little Not at all
114. Are students generally permitted to be in the halls during independent study time ?	YES NO
115. Are students permitted to move between study areas at any time they choose ?	YES NO

ADMINISTRATIVE DIRECTOR - 15

116. Are students restricted to the school grounds   YES
     during certain hours ?   NO

117. When and where is attendance taken?

118. (Look at use made of Morning bulletin, Bulletin boards, Rules
     and Regulations, Penalties, P.A. System, and handbook to
     help determine authoritarian-democratic posture)

Material and Human Resources

119. To what extent are students encouraged to   Greatly
     use staff members, from whom they are not   Moderately
     taking classes, as resource people ?   Little
                                                      Not at all

120. To what extent do students use staff members,   Greatly
     from whom they are not taking classes, as   Moderately
     resource people? Why or why not?   Little
                                                      Not at all

ADMINISTRATIVE DIRECTOR - 16

---

121. Is there a formally organized program to facilitate and/or motivate student use of staff members as resource people ?

   YES
   NO

   Describe

---

122. To what extent are students encouraged to use people in the community as resource people ?

   Greatly
   Moderately
   Little
   Not at all

---

123. To what extent do students use people in the community as resource people ?

   Greatly
   Moderately
   Little
   Not at all

---

124. Is there a formally organized program to facilitate and/or motivate student use of people in the community as resource people ?

   YES
   NO

   Describe

---

125. We will be talking with the people in charge of library and audio visual resources. With the exception of those two areas and those covered by the preceeding questions in this section, what other kinds of material or human resources are utilized by students for independent study ?

   Who or what ? _____

   Greatly
   Moderately
   Little
   Not at all

ADMINISTRATIVE DIRECTOR - 17

Attitudes Toward Program

We would like to know what you think about the following statements.
Indicate the extent to which you agree or disagree by placing a
check mark in the appropriate box.

1. As compared to students in schools without independent study
programs our students have a better chance to:

126-133	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
Develop creativity						
Develop an inquiring mind						
Develop self-discipline						
Develop self-initiative						
Develop resourcefulness						
Develop self-evaluation skills						
Develop research skills						
Be accomodated for individual differences						

2. As compared to schools without independent study programs, this
school:

134-138	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
Makes better use of the teacher's time						
Has fewer classroom discipline problems						
Has less serious classroom discipline problems						
Has fewer outside of class discipline problems						
Has less serious outside of class discipline problems						

ADMINISTRATIVE DIRECTOR - 18

139. We are interested in knowing what your attitudes and evaluations are of any part or of the total independent study program. On the remainder and back of this sheet will you please indicate in essay or list form your likes, dislikes and evaluations of the program or any of its parts.

ADMINISTRATIVE DIRECTOR -19

Evaluation

140.	A regular and systematic procedure is followed to evaluate the success of the independent study program.	YES NO

---

141. How is the total independent study program evaluated?

142.	To what extent are students aided in evaluating their own progress in terms of both short and long-range objectives? How?	Greatly Moderately Little Not at all

---

143. How is individual pupil progress towards program and personal objectives evaluated?

144.	To what extent are counselors involved in evaluation of student progress? How?	Greatly Moderately Little Not at all

---

---

145. To what extent have graduates who have
experienced the independent study program
been more successful than those who have
Not?

Greatly
Moderately
Little
Not at all

Evidence?

---

146. To what extent have achievement test scores
improved since the inception of the
independent study program?

Greatly
Moderately
Little
Not at all

.Evidence?

---

147. To what extent have student grades improved
since the inception of the independent study
program?

Greatly
Moderately
Little
Not at all

Evidence?

---

148. To what extent do you feel that a better job
of educating students is done with the
independent study program than could be
done without it?

Greatly
Moderately
Little
Not at all

---

149. To what extent is teacher effectiveness in   Greatly
     the independent study program evaluated?   Moderately
                                                         Little
     How?   Not at all

Staff In-Service

To what extent are staff members given assistance, and/or time to improve the independent study program by the following means?

150. Regular faculty meetings   Greatly
                                                         Moderately
                                                         Little
                                                         Not at all

151. Special meetings during the school year   Greatly
                                                         Moderately
                                                         Little
                                                         Not at all

152. Extended contracts   Greatly
                                                         Moderately
                                                         Little
                                                         Not at all

153. Individual conferences   Greatly
                                                         Moderately
                                                         Little
                                                         Not at all

ADMINISTRATIVE DIRECTOR - 22

154.	University workshops	Greatly Moderately Little Not at all
155.	Use of resource people	Greatly Moderately Little Not at all
156.	Special assistance to new teachers	Greatly Moderately Little Not at all
157.	Assistance from other teachers	Greatly Moderately Little Not at all
158.	Printed materials - commercial	Greatly Moderately Little Not at all
159.	Printed materials - staff devised	Greatly Moderately Little Not at all
160.	Other _____	Greatly Moderately Little Not at all

ADMINISTRATIVE DIRECTOR - 23

161. Is a particular person or group responsible   YES
for organizing independent study program   NO
in-service work?

Who?

School and Community

Indicate the percentage of graduates of your senior class who <u>have</u>
<u>entered</u> the educational, occupational, or other categories listed
below:

I. Educational

    162. Programs leading to a bachelor's degree   ____%

    163. Terminal, trade, and vocational schools   ____%

    164. Apprenticeship programs   ____%

    165. Other   ____%

II. Occupational

    166. Clerical and kindred   ____%

    167. Sales   ____%

    168. Craftsmen and kindred   ____%

    169. Operatives and laborers   ____%

    170. Service workers   ____%

    171. Armed forces   ____%

ADMINISTRATIVE DIRECTOR - 24

172.	Other	_____%
III.	Other	
173.	Housewife	_____%
174.	Unemployed	_____%
175.	Unknown	_____%
	TOTAL	100%

176. Describe the procedure used in securing these data.

177. Describe briefly the general character of employment of adults in this community.

178. What is your source of information?

179. Describe, in general, the extent of the formal education of parents and other adults in the community.

180. What is your source of information?

APPENDIX H

<u>ADMINISTRATOR'S DATA SHEETS</u>

School 1 2 3 4 5 6 7 8 9 10

Official title _____

Please describe your duties and about what percentage of your time
is spent at each duty.

<u>Duty</u>   <u>Percentage</u>

                                              _____
                                                 100%
_____

How many years have you held your current position (include this
year)?

_____

_____

        The following questions are designed to get information about the
independent study program in your school. You will be given an
explanation of the kinds of information we are looking for before you
begin work on each section. Please <u>do not</u> start any section until
you have received the explanation.

        When YES or NO responses or qualitative judgments are re-
quested, circle the answer which most closely reflects your judg-
ment   In a few cases you will be asked to fill in a blank with an
answer or write a short paragraph.

        In all cases space has been provided so that you may enlarge
upon an answer if you feel this would be helpful to us. Please feel
free to ask for clarification at any time if a question is not clear.

ADMINISTRATORS

Leadership

To what extent does leadership in the independent study
program emanate from the following?

Principal	Greatly Moderately Little Not at all
Designated director	Greatly Moderately Little Not at all
Other administrator Who ? _____	Greatly Moderately Little Not at all
Department chairman	Greatly Moderately Little Not at all
A specific teacher Who ? _____	Greatly Moderately Little Not at all
A specific group of teachers Who ? _____	Greatly Moderately Little Not at all

ADMINISTRATORS - 2

Other _____

Greatly
Moderately
Little
Not at all

Other _____

Greatly
Moderately
Little
Not at all

Attitudes Toward Program

We would like to know what you think about the following statements.
Indicate the extent to which you agree or disagree by placing a check
mark in the appropriate box.

1. As compared to students in schools without independent study
programs our students have a better chance to:

	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
Develop creativity						
Develop an inquiring mind						
Develop self-discipline						
Develop self-initiative						
Develop resourcefulness						
Develop self-evaluation skills						
Develop research skills						
Be accomodated for individual differences						

ADMINISTRATORS - 3

2. As compared to schools without independent study programs, this
school:

	Strongly Agree	Agree	No Differ-ences	Do Not Know	Dis-agree	Strongly Disagree
Makes better use of the teacher's time						
Has fewer classroom discipline problems						
Has less serious class-room discipline problems						
Has fewer outside of class discipline problems						
Has less serious outside of class discipline problems						

3. We are interested in knowing what your attitudes and evaluations
are of any part or of the total independent study program. On the
remainder and back of this sheet will you please indicate in essay or
list form your likes, dislikes and evaluations of the program or any
of its parts.

APPENDIX I

LIBRARIAN'S DATA SHEETS

School 1 2 3 4 5 6 7 8 9 10

Number of years experience as a librarian _____

Number of years as a librarian in this school _____

Number of years as a librarian in schools
without independent study programs _____

Number of years as a librarian in this
school with the independent study program? _____

Male _____   Female _____

This is the instrument which will guide the interview with the
building librarian.   The interview will be conducted and recorded
by the researcher.

LIBRARIAN

Program Objectives

Are there written objectives for the independent study program in your school?	YES NO
Do you have your own copy?	YES NO
If you are not aware of the existence of written objectives for the independent study program are you aware of administratively accepted objectives?	YES NO
To what extent are you knowledgeable about the written or understood objectives?	Greatly Moderately Little Not at all
To what extent have program objectives, whether or not they are written, been discussed with you by the administration or their representatives?	Greatly Moderately Little Not at all
To what extent do you apply these in your work with students?	Greatly Moderately Little Not at all

To what extent has each of the following been emphasized to you
as being an important objective of the independent study program
in your school?

Develop creativity	Greatly Moderately Little Not at all

LIBRARIAN - 2

Develop inquiring mind	Greatly Moderately Little Not at all
Develop self-discipline	Greatly Moderately Little Not at all
Develop self-initiative	Greatly Moderately Little Not at all
Develop resourcefulness	Greatly Moderately Little Not at all
Develop self-evaluation skills	Greatly Moderately Little Not at all
Develop research skills	Greatly Moderately Little Not at all
Provide for individual differences	Greatly Moderately Little Not at all

LIBRARIAN - 3

Free the teacher's time	Greatly Moderately Little Not at all
Other _____	Greatly Moderately Little Not at all
Other _____	Greatly Moderately Little Not at all
Other _____	Greatly Moderately Little Not at all

Leadership

To what extent does leadership in the independent study
program emanate from the following?

Principal	Greatly Moderately Little Not at all
Designated director	Greatly Moderately Little Not at all

LIBRARIAN - 4

Other administrator Who? _____	Greatly Moderately Little Not at all
Department chairman	Greatly Moderately Little Not at all
A specific teacher Who? _____	Greatly Moderately Little Not at all
A specific group of teachers Who? _____	Greatly Moderately Little Not at all
Other _____	Greatly Moderately Little Not at all
Other _____	Greatly Moderately Little Not at all

LIBRARIAN - 5

Independent Study Program Organization

To what extent do the following personnel have influence in the selection of resources for use in study areas other than the library?

Building administration	Greatly Moderately Little Not at all
Department chairman	Greatly Moderately Little Not at all
Teachers	Greatly Moderately Little Not at all
Students	Greatly Moderately Little Not at all
Librarian	Greatly Moderately Little Not at all
Non-certified personnel	Greatly Moderately Little Not at all

LIBRARIAN - 6

District supervisors or directors	Greatly Moderately Little Not at all
Other _____	Greatly Moderately Little Not at all

On the rest of this page and the back outline for me the responsibilities of the librarian in the independent study program.

LIBRARIAN - 7

Preparation of Students

To what extent do your feeder schools prepare
students to participate effectively in your
independent study program?

Greatly
Moderately
Little
Not at all

How?

To what extent do your feeder schools provide a
special program to help prepare students for
the independent study program?

Greatly
Moderately
Little
Not at all

Material and Human Resources

Do you have the necessary materials to be
considered a standard library?

YES
NO

Are any of these distributed to study areas out-
side of the library?

YES
NO

If so, to what extent, how, and where?

LIBRARIAN - 8

What areas have been developed beyond the standard library level?
(topics, reading levels, teacher developed materials)

Describe

Are any of these distributed to study areas   YES
outside of the library?   NO

If so, to what extent, how, and where?

Where and how can I see these?

LIBRARIAN - 9

Material and Human Resources

To what extent are students encouraged to use staff member, from whom they are not taking classes, as resource people?	Greatly Moderately Little Not at all

---

To what extent do students use staff members, from whom they are not taking classes, as resource people? Why or why not?	Greatly Moderately Little Not at all

---

Is there a formally organized program to facilitate and/or motivate student use of staff members as resource people?	YES NO

Describe

To what extent are students encouraged to use people in the community as resource people?	Greatly Moderately Little Not at all

---

To what extent do students use people in the community as resource people?	Greatly Moderately Little Not at all

LIBRARIAN - 10

Is there a formally organized program to facilitate   YES
and/or motivate student use of people in the   NO
community as resource people?

Describe

We have already talked with the person in charge of audio visual
resources. With the exception of that area and those covered by the
preceeding questions in this section, what other kinds of material
or human resources are utilized by students for independent study?

Who or what? _____   Greatly

_____   Moderately

_____   Little

_____   Not at all

Attitudes Toward Program

We would like to know what you think about the following statements.
Indicate the extent to which you agree or disagree by placing a
check mark in the appropriate box.

LIBRARIAN - 11

1. As compared to students in schools without independent study
programs our students have a better chance to:

	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
Develop creativity						
Develop an inquiring mind						
Develop self-discipline						
Develop self-initiative						
Develop resourcefulness						
Develop self-evaluation skills						
Develop research skills						
Be accomodated for individual differences						

2. As compared to schools without independent study programs, this
school:

	Strongly Agree	Agree	No Difference	Do Not Know	Disagree	Strongly Disagree
Makes better use of the teacher's time						
Has fewer classroom discipline problems						
Has less serious classroom discipline problems						
Has fewer outside of class discipline problems						
Has less serious outside of class discipline problems						

3. We are interested in knowing what your attitudes and evaluations are
of any part or of the total independent study program. On the remainder
and back of this sheet will you please indicate in essay or list form your
likes, dislikes and evaluations of the program or any of its parts.

LIBRARIAN - 12

Evaluation

A regular and systematic procedure is followed to evaluate the success of the independent study program.	YES NO

To what extent is teacher effectiveness in the independent study program evaluated? How? _____	Greatly Moderately Little Not at all

_____

_____

.. . .

_____

_____

To what extent are students aided in evaluating their own progress in terms of both short and long-range objectives? How? _____	Greatly Moderately Little Not at all

_____

_____

_____

_____

_____

_____

LIBRARIAN - 13

To what extent are counselors involved in
evaluation of student progress ?

           Greatly
           Moderately
           Little

How ? _____   Not at all

_____

_____

_____

To what extent do you feel that a better job of
educating students is done with the independent
study program than could be done without it ?

           Greatly
           Moderately
           Little
           Not at all

Staff In-Service

To what extent are staff members given assistance, and/or time to
improve the independent study program by the following means ?

     Regular faculty meetings

           Greatly
           Moderately
           Little
           Not at all

     Special meetings during the school year

           Greatly
           Moderately
           Little
           Not at all

     Extended contracts

           Greatly
           Moderately
           Little
           Not at all

LIBRARIAN - 14

Individual conferences	Greatly Moderately Little Not at all
University workshops	Greatly Moderately Little Not at all
Use of resource people	Greatly Moderately Little Not at all
Special assistance to new teachers	Greatly Moderately Little Not at all
Assistance from other teachers	Greatly Moderately Little Not at all
Printed materials - commercial	Greatly Moderately Little Not at all
Printed materials - staff devised	Greatly Moderately Little Not at all

LIBRARIAN - 15

Other _____	Greatly
	Moderately
	Little
	Not at all

APPENDIX J

AUDIO VISUAL DIRECTOR'S DATA SHEETS

School 1 2 3 4 5 6 7 8 9 10

Number of years experience as an audio visual director _____

Number of years as an audio visual director in this
school   _____

Number of years as an audio visual director in
schools without independent study programs   _____

Number of years as an audio visual director in
this school with the independent study program?   _____

Male _____   Female _____

This is the instrument which will guide the interview with
the building audio visual director. The interview will be
conducted and recorded by the researcher.

AUDIO VISUAL DIRECTOR

Program Objectives

Are there written objectives for the independent study program in your school?	YES NO

Do you have your own copy?	YES NO

If you are not aware of the existence of written objectives for the independent study program are you aware of administratively accepted objectives?	YES NO

To what extent are you knowledgeable about the written or understood objectives?	Greatly Moderately Little Not at all

To what extent have program objectives, whether or not they are written, been discussed with you by the administration or their representatives?	Greatly Moderately Little Not at all

To what extent do you apply these in your work with students?	Greatly Moderately Little Not at all

To what extent has each of the following been emphasized to you as being an important objective of the independent study program in your school?

Develop creativity	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 2

Develop inquiring mind	Greatly Moderately Little Not at all
Develop self-discipline	Greatly Moderately Little Not at all
Develop self-initiative	Greatly Moderately Little Not at all
Develop resourcefulness	Greatly Moderately Little Not at all
Develop self-evaluation skills	Greatly Moderately Little Not at all
Develop research skills	Greatly Moderately Little Not at all
Provide for individual differences	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 3

Free the teacher's time	Greatly Moderately Little Not at all
Other _____	Greatly Moderately Little Not at all
Other _____	Greatly Moderately Little Not at all
Other _____	Greatly Moderately Little Not at all

Leadership

To what extent does leadership in the independent study program emanate from the following?

Principal	Greatly Moderately Little Not at all
Designated director	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 4

Other administrator	Greatly
	Moderately
Who? _____	Little
	Not at all
Department chairman	Greatly
	Moderately
	Little
	Not at all
A specific teacher	Greatly
	Moderately
Who? _____	Little
	Not at all
A specific group of teachers	Greatly
	Moderately
Who? _____	Little
	Not at all
Other _____	Greatly
	Moderately
	Little
	Not at all
Other _____	Greatly
	Moderately
	Little
	Not at all

AUDIO VISUAL DIRECTOR - 5

Independent Study Program Organization

To what extent do the following personnel have influence
in the selection of resources for use in study areas
other than the library?

Building administration	Greatly Moderately Little Not at all
Department chairman	Greatly Moderately Little Not at all
Teachers	Greatly Moderately Little Not at all
Students	Greatly Moderately Little Not at all
Librarian	Greatly Moderately Little Not at all
Non-certified personnel	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 6

District supervisors or directors	Greatly Moderately Little Not at all
Other _____	Greatly Moderately Little Not at all

Outline for me the responsibilities of the audio visual director in the independent study program.

Preparation of Students

To what extent do your feeder schools prepare students to participate effectively in your independent study program?	Greatly Moderately Little Not at all

How ?

AUDIO VISUAL DIRECTOR - 7

To what extent do your feeder schools provide a
special program to help prepare students for the
independent study program ?

Greatly
Moderately
Little
Not at all

Material and Human Resources

What kinds and amounts of audio visual equipment are used in the
independent study program ?

Equipment   Amount

Which of these are operated by the students themselves ?

Describe the audio visual library available to students during
independent study time. (films, tapes, records, slides, etc.)
(topics, ability levels)

Medium   Materials Available

AUDIO VISUAL DIRECTOR - 8

Where is the independent study audio visual equipment located ?

What procedures do students follow to use audio visual resources ?

To what extent are students encouraged to use staff members, from whom they are not taking classes, as resource people ?	Greatly Moderately Little Not at all
To what extent do students use staff members, from whom they are not taking classes, as resource people ? Why or why not ?	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 9

Is there a formally organized program to facilitate
and/or motivate student use of staff members as
resource people ?

YES

NO

Describe _____

_____

_____

_____

To what extent are students encouraged to use
people in the community as resource people?

Greatly

Moderately

Little

Not at all

To what extent do students use people in the
community as resource people?

Greatly

Moderately

Little

Not at all

Is there a formally organized program to facilitate
and/or motivate student use of people in the
community as resource people?

YES

NO

Describe _____

_____

_____

_____

AUDIO VISUAL DIRECTOR - 10

We have already talked with the people in charge of the library resources. With the exception of that area and those covered by the preceeding questions in this section, what other kinds of material or human resources are utilized by students for independent study?

Who or what? _____

Greatly
Moderately
Little
Not at all

_____

Attitudes Toward Program

We would like to know what you **think** about the following statements. Indicate the extent to which you **agree** or disagree by placing a check mark in the appropriate box.

1. As compared to students in schools without independent study programs our students have a better chance to:

	Strongly Agree	Agree	No Difference	Do Not Know	Dis-Agree	Strongly Disagree
Develop creativity						
Develop an inquiring mind						
Develop self-discipline						
Develop self-initiative						
Develop resourcefulness						
Develop self-evaluation skills						
Develop research skills						
Be accomodated for individual differences						

AUDIO VISUAL DIRECTOR - 11

2.   As compared to schools without independent study programs, this school:

	Strongly Agree	Agree	No Differences	Do Not Know	Disagree	Strongly Disagree
Makes better use of the teacher's time						
Has fewer classroom discipline problems						
Has less serious classroom discipline problems						
Has fewer outside of class discipline problems						
Has less serious outside of class discipline problems						

3.   We are interested in knowing what your attitudes and evaluations are of any part or of the total independent study program.   On the remainder and back of this sheet will you please indicate in essay or list form your likes, dislikes and evaluations of the program or any of its parts.

AUDIO VISUAL DIRECTOR - 12

Evaluation

A regular and systematic procedure is followed to evaluate the success of the independent study program.	YES NO

To what extent is teacher effectiveness in the independent study program evaluated?	Greatly Moderately Little Not at all

How? _____

_____

_____

_____

To what extent are students aided in evaluating their own progress in terms of both short and long-range objectives?	Greatly Moderately Little Not at all

How? _____

_____

_____

_____

_____

_____

_____

AUDIO VISUAL DIRECTOR - 13

To what extent are counselors involved in
evaluation of student progress ?

Greatly
Moderately
Little

How ? _____

Not at all

_____

_____

_____

To what extent do you feel that a better job of
educating students is done with the independent
study program than could be done without it?

Greatly
Moderately
Little
Not at all

Staff In-Service

To what extent are staff members given assistance, and/or time to
improve the independent study program by the following means ?

Regular faculty meetings	Greatly Moderately Little Not at all
Special meetings during the school year	Greatly Moderately Little Not at all
Extended contracts	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 14

Individual conferences	Greatly Moderately Little Not at all
University workshops	Greatly Moderately Little Not at all
Use of resource people	Greatly Moderately Little Not at all
Special assistance to new teachers	Greatly Moderately Little Not at all
Assistance from other teachers	Greatly Moderately Little Not at all
Printed materials - commercial	Greatly Moderately Little Not at all
Printed materials - staff devised	Greatly Moderately Little Not at all

AUDIO VISUAL DIRECTOR - 15

Other _____	Greatly
	Moderately
	Little
	Not at all

APPENDIX K

Facility	Yes or No	Disc.	Number Students	When Available to Students	Who Supervises	Kinds of Equipment	Amt.	Resources	Operation System	Who Organizes Material	Who Adm.	Staff Available	Atmosphere	Noise

APPENDIX L

Dear Mr.

This letter is to confirm our telephone conversation of March 15, during which we established my visitation days in your school as April 14, 15, and 18. Although I am anxious to collect the data for this study, I am equally anxious just to have the opportunity to spend three days in your school.

I have enclosed a copy of a possible data collecting schedule for the three days. "First Day" items A, D, and E and "Second-Third Days" item A are particularly worthy of note since they are the least flexible and also the most difficult to schedule. Although the schedule calls for the meeting with the faculty on either the first or second day, it may be more convenient for your staff to meet on Monday. That would certainly be all right with me if it works out best for your staff.

If you should need to contact me before my arrival, mail sent to my university address will be forwarded to me. Also, I will be at on April 11, 12, and 13.

I greatly appreciate the courtesy and cooperation you have extended to me in arranging this study. I have every hope that the results will be of benefit, both, to those of you now involved and others who have yet to become involved in independent study programs.

Sincerely yours,

Marvin L. Evans
School of Education
University of Oregon
Eugene, Oregon 97403

P. S. I am particularly anxious to receive that information sheet that you received with the first letter. I need to know the name, form, and date taken of I. Q. scores that you have on record for each of your four classes.

POSSIBLE DATA COLLECTION SCHEDULE

First Day:

a. A three hour interview with an administrator who is thoroughly familiar with the development and operation of the independent study program. This interview does need to precede the other collection of data.

b. A one hour meeting with the administrative staff. It will take less than half an hour to collect the data and the remaining time can be used to share information with you about other programs I have seen.

c. A one and one half hour interview with the librarian.

d. A one and one half hour meeting with the faculty after school. (Either first or second day)

e. Sometime during the first day, by referring to student schedules and I. Q. test scores, 48 students need to be identified from each class. This should take about two hours and some help from a counselor or secretary who knows your records would be very helpful.

Second and Third Days: (Very flexible)

a. One hour with each group of 48 students during which time they will complete a questionnaire. This is probably the greatest imposition since it will probably require some loss of class time by those involved.

b. A one and one half hour interview with the staff member responsible for your audio visual equipment and materials.

c. This leaves about one full day for observations and the sharing with you of information about other independent study programs I have observed.

(TOP)

ERIC ACCESSION NO.				
CLEARINGHOUSE ACCESSION NUMBER	RESUME DATE 1 – 30– 68	P.A.	T.A.	IS DOCUMENT COPYRIGHTED? YES ☐ NO ☒
				ERIC REPRODUCTION RELEASE? YES ☒ NO ☐

001

100
101
102
103

TITLE

A Comparative Study of Secondary School Independent Study Programs

200

PERSONAL AUTHOR(S)
Evans, Marvin L.

300

INSTITUTION (SOURCE)
Oregon University, Eugene, College of Education

SOURCE CODE
SJJ69825

310

REPORT/SERIES NO.
OTHER SOURCE

SOURCE CODE

320
330

OTHER REPORT NO.
OTHER SOURCE

SOURCE CODE

340
350

OTHER REPORT NO.

400

PUB'L. DATE 3 – 16 – 68 xXxXXXXX **GRANT NUMBER** OEG-4-6-068389-1301

PAGINATION, ETC.
367 p.

500
501

RETRIEVAL TERMS

600
601
602
603
604
605
606

IDENTIFIERS

607

ABSTRACT

800   The purpose of this study was to identify the characteristics of certain
801 secondary school independent study programs, determine the relationship between
802 these characteristics and the effectiveness of the programs, and compare these
803 existing characteristics to those recommended in the literature.
804
805   The independent study programs in nine schools were classified, with advice
806 from a panel of five national experts, as successful or as less successful
807 independent study programs. Case studies were written for each of the nine
808 programs using data collected during a three-day visit to each program. Data-
809 collection techniques included observations, interviews, and questionnaires.
810 Comparisons were then made between characteristics found in successful programs,
811 those found in less successful programs, and those recommended in the literature.
812
813   Factors which appeared to affect the success level of programs were (1) aware-
814 ness of objectives; (2) leadership patterns; (3) appropriateness of learning
815 activities; (4) individual attention to students; (5) restrictions on student
816 activities; (6) variety of motivational techniques; (7) pressures on students;
817 (8) use of aides; (9) use of physical facilities; (10) accessibility and
818 appropriateness of printed and AV resources; (11) use made by students of their
819 own and other teachers; (12) assistance given students in evaluating progress; and
820 (13) emphasis placed on in-service activities for staff members.
821
822

INSTRUCTIONS FOR COMPLETING ERIC REPORT RESUME

The resume is used to identify summary data and information about each document acquired, processed, and stored within the ERIC system. In addition to serving as a permanent record of the document in the collection, the resume is also a means of dissemination. All fields of the form must be completed in the allotted spaces, but inapplicable fields should be left blank. The following instructions are keyed to the line numbers appearing in the left margin of the form:

TOP LINE. <u>ERIC Accession No.</u> Leave blank. A permanent ED number will be assigned to each resume and its corresponding document as they are processed into the ERIC system.

LINE 001. <u>Clearinghouse Accession No.</u> For use only by ERIC Clearinghouses. Enter the alpha code and 6-digit document number.
 <u>Resume Date.</u> In numeric form, enter month, day, and year that resume is completed. *(Example: 07 14 66)*
 <u>P.A.</u> Leave blank.
 <u>T.A.</u> Leave blank.
 <u>Copyright.</u> Check appropriate block to denote presence of copyrighted material within the document.
 <u>ERIC Reproduction Release.</u> Check appropriate block to indicate that ERIC has permission to reproduce the document and its resume form.

LINES 100-103. <u>Title.</u> Enter the complete document title, including subtitles if they add significant information. Where applicable, also enter volume number or part number, and the type of document *(Final Report, Interim Report, Thesis, etc.).*

LINE 200. <u>Personal Author(s).</u> Enter personal author(s), last name first. *(Example: Doe, John J.)* If two authors are given, enter both. *(Example: Doe, John J. Smith, Ted).* If there are three or more authors, list only one followed by "and others."

LINE 300. <u>Institution *(Source)*.</u> Enter the name of the organization which originated the report. Include the address *(city and State)* and the subordinate unit of the organization. *(Example: Harvard Univ., Cambridge, Mass., School of Education.)*
 <u>Source Code.</u> Leave blank.

LINE 310. <u>Report/Series No.</u> Enter any unique number assigned to the document by the institutional source. *(Example: SC-1234)*

LINE 320. <u>Other Source.</u> Use only when a second source is associated with the document. Follow instructions for Line 300 above.
 <u>Source Code.</u> Leave blank.

LINE 330. <u>Other Report No.</u> Enter document number assigned by the second source.

LINE 340. <u>Other Source.</u> Use only when a third source is associated with the document. Follow instructions for Line 300 above.
 <u>Source Code.</u> Leave blank.

LINE 350. <u>Other Report No.</u> Enter document number assigned by the third source.

LINE 400. <u>Publication Date.</u> Enter the day, month, and year of the document. *(Example: 12 Jun 66)*
 <u>Contract/Grant Number.</u> Applicable only for documents generated from research sponsored by the U.S. Office of Education. Enter appropriate contract or grant number and its prefix. *(Example: OEC-1-6-061234-0033)*

LINES 500-501. <u>Pagination, etc.</u> Enter the total number of pages of the document, including illustrations and appendixes. *(Example: 115p.)* USE THIS SPACE FOR ADDITIONAL INFORMATION PERTINENT TO THE DOCUMENT, such as publisher, journal citation, and other contract numbers.

LINES 600-606. <u>Retrieval Terms.</u> Enter the important subject terms *(descriptors)* which, taken as a group, adequately describe the contents of the document.

LINE 607. <u>Identifiers.</u> Enter any additional important terms, more specific than descriptors, such as trade names, equipment model names and numbers, organization and project names, discussed in the document.

LINES 800-822. <u>Abstract.</u> Enter an informative abstract of the document. Its style and content must be suitable for public announcement and dissemination.

TYPED BY: Arlene Paxton

MULTILITHED BY: Margaret Pluid