A COMPARISON OF TWO METHODS OF TEACHING AMERICAN HISTORY AT THE COLLEGE LEVEL

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A COMPARISON OF TWO METHODS OF TEACHING AMERICAN
HISTORY AT THE COLLEGE LEVEL

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CHAPTER I

INTRODUCTION

J. Lloyd Trump (33) writes that educators collectively, are faced with a complexity of problems and pressures which have heretofore been unknown. Due to the expansion of the population by three million people per year (26), the burst of technology, the discovery of new forms of energy, the extension of knowledge, which is expected to double every decade or less (1), the rise of new nations, and a worldwide rivalry of ideologies, the world (as we know it) may not survive. Educators, in view of this situation, are going to be faced with a twofold problem: they must provide quality education to prepare the student for his highly complex society, and, at the same time, they must provide quality educational opportunities to all students regardless of race or educational ability (32).

The problems will be solved by "specialists-plus," such as the physical scientist who can work with the social scientist, the teacher who can work with the businessman, and vice versa. It will take individuals who can interrelate their contributions in a spirit of friendly cooperation with those in a different field of endeavor. Forces today are demanding that the school stress mastery of subject matter,
and they are pressing for the assignment of specially trained workers to the personal and social problems of children (17).

In order for schools to produce these specialists-plus, educators must accept the premise that education is a process which does not limit itself to four walls, a teacher, and 50 minutes per day for 175 days per year. Education must be flexible and experimental, yet quality-centered and academically sound (10). B. Frank Brown, Superintendent of the Melbourne Public Schools in Florida (10), advocated a multi-varied method which is similar to that proposed by Trump. He feels that having the student more active in and more responsible for his own learning is the best way to meet the demands of our time.

Trump advocates a movement in which he feels the student should spend 20 percent of his time in small-group instruction, with each group consisting of approximately fifteen students. Forty percent of his time should be spent in large-group instruction, and the remaining 40 percent should be devoted to independent study (36, p. 104). These time divisions are only suggestions; the division of time should be flexible enough to meet the needs of the individual student.

Statement of Problem

The problem of this study was the effectiveness of directed study as a method of teaching American history at the college level. This method involved the use of small
discussion groups, independent reading, and a limited use of special lectures.

Purpose of the Study

The purpose of this study was to determine the effectiveness of teaching college American history through directed study. Determining this involved answering the following questions:

What was the effect of the use of directed study upon (1) achievement of factual knowledge, as measured by the Crary American History Test? (2) the development of study methods, as measured by the California Study Methods Survey? (3) attitudes toward American history, as measured by Remmer's Test of Attitude Toward any School Subject?

Hypotheses

In order to carry out the purposes of the study, the following hypotheses were formulated:

I. The mean gain made by the experimental group on the Crary American History Test will be significantly greater than the mean gain made by the control group.

II. Students who are in the above-average experimental group, as measured by the Otis Quick-Scoring Mental Abilities Test, will achieve a significantly greater mean gain on the Crary American History Test than will the students who are in the above-average control group, as measured by the Otis Quick-Scoring Mental Abilities Test.
III. Students who are in the average experimental group, as measured by the Otis Quick-Scoring Mental Abilities Test, will achieve a significantly greater mean gain on the Crary American History Test than will the students who are in the average control group, as measured by the Otis Quick-Scoring Mental Abilities Test.

IV. Students who are in the below-average experimental group, as measured by the Otis Quick-Scoring Mental Abilities Test, will achieve a significantly greater mean gain on the Crary American History Test than will the students who are in the below-average control group, as measured by the Otis Quick-Scoring Mental Abilities Test.

V. The mean gain made by the experimental group on the California Study Methods Survey will be significantly greater than the mean gain made by the control group.

VI. Students who are in the above-average experimental group, as measured by the Otis Quick-Scoring Mental Abilities Test, will achieve a significantly greater mean gain on the California Study Methods Survey than will the students who are in the above-average control group, as measured by the Otis Quick-Scoring Mental Abilities Test.

VII. Students who are in the average experimental group, as measured by the Otis Quick-Scoring Mental Abilities Test, will achieve a significantly greater mean gain on the California Study Methods Survey than will students who are in the average control group, as measured by the Otis Quick-Scoring Mental Abilities Test.
VIII. Students who are in the below-average experimental group, as measured by the Otis Quick-Scoring Mental Abilities Test, will achieve a significantly greater mean gain on the California Study Methods Survey than will the students who are in the below-average control group, as measured by the Otis Quick-Scoring Mental Abilities Test.

IX. The mean gain made by the experimental group on the Remmer's Test of Attitude Toward any School Subject will be significantly greater than the mean gain made by the control group.

X. Students who are in the above-average experimental group, as measured by the Otis Quick-Scoring Mental Abilities Test, will achieve a significantly greater mean gain on the Remmer's Test of Attitude Toward any School Subject than will students who are in the above-average control group, as measured by the Otis Quick-Scoring Mental Abilities Test.

XI. Students who are in the average experimental group, as measured by the Otis Quick-Scoring Mental Abilities Test, will achieve a significantly greater mean gain on the Remmer's Test of Attitude Toward any School Subject than will the students who are in the average control group, as measured by the Otis Quick-Scoring Mental Abilities Test.

XII. Students who are in the below-average experimental group, as measured by the Otis Quick-Scoring Mental Abilities Test, will achieve a significantly greater mean gain on the Remmer's Test of Attitude Toward any School Subject than will
the students who are in the below-average control group, as measured by the Otis Quick-Scoring Mental Abilities Test.

Background and Significance of the Study

Directed study is very closely related to independent study in that there is class time made available for the student to do research in areas related to the unit of work being studied by the class. The student has freedom, although less than in independent study, in the selection of an area for outside reading.

Independent study as defined by Reavis (30) is research in depth beyond normal course requirements, into topics that a student may select, and which he may carry out with a minimum of faculty direction. Trump (34) defines it as a method of learning in which the students go beyond the materials as determined by the teacher, where they learn to create as their individual interests and talents dictate. Here they learn how to learn, and develop more responsibility for their own learning. Many suggest that an individual who has time, motivation, and the proper facilities, can learn many things without constant faculty supervision. Alexander and Hines (2) define independent study: "Independent study is considered by us to be a learning activity largely motivated by the learner's own aims and largely rewarded in terms of its intrinsic value. Such activity . . . utilizes the services of teachers and other professional personnel primarily as resources for the learner" (2, p. 12).
Gorton (22) advocates that it is just as important for the student to initiate learning experiences founded on his special interests and abilities as it is for the student to learn the information and skills as predetermined by the teacher.

Congreve states that the value of independent study is based on four premises.

1. It will encourage the student to make better use of the library and study center.
2. It will help the student grow in his ability to think critically and to define and solve problems.
3. The student will learn as much factual knowledge in each subject as if he were in a regular class.
4. It will cause the student to reorder his conceptions about the role of the teacher and the purpose of the school to the extent that he will accept more responsibility for his own learning (14, p. 211).

The growing emphasis upon developing each individual to his fullest potential, along with the lack of time to convey increasing knowledge to an increasing number of students, has caused a resurgence of interest in multivaried programs. With the advent of modular scheduling and team teaching, directed study is being used at nearly all levels of education. Most of the work in this field has been undertaken at the college and secondary levels.

While most of the students involved have been of high academic caliber, Faust (18) contends that the average student should also have opportunities to engage in directed study. He advocates that each student should be allowed to
progress at as rapid a pace as his capacity and energy make possible, but his is not always the case, for in a survey of over 200 college catalogues it was found that the exceptional student is the one sought out and encouraged to engage in such programs of learning (8).

The Second Report to the President in 1947 by the President's Committee on Education Beyond the High School gave the following statement regarding individualized learning, showing their approval of it as

... giving students more responsibility for their education through greater reliance on independent study and less on daily instruction from teachers (7, pp. 87-88).

Colleges have long used various types of directed-study programs. Felder (19) in 1963 reported on a survey of 520 colleges and universities to determine the extent of their use of directed study. The report showed that 60 percent of the responding institutions of higher learning were using it in some form.

Since the mid-fifties Antioch College has been experimenting with various approaches to determine effectiveness in attitudes and knowledge gained. In the Antioch programs, the students were matched on the basis of year in college, sex, and background knowledge at the beginning of the courses. The results have shown that the students in 1956 showed a general dissatisfaction with independent study, while in 1960 the feeling was about the same as for classes of the lecture-discussion type. Between the use of the independent
study method and the lecture-discussion method, it was found that there was no significant difference in the amount of factual knowledge gained. It was felt that academic potential was not the determining factor in success, but that attitude and personality traits may have had a bearing (3).

At Antioch the experimental program utilized faculty "preceptors" who assisted freshmen in selecting appropriate and relevant learning experiences. Students were encouraged to participate in the autonomous learning experiences by taking part in seminars, workshops, laboratories, lecture-discussions, and other such programs. In this program there were no grades but subjective descriptions of the students' work were given by the professor. The personal difficulties in the process were exhibited in several ways: in anxiety about whether one is doing what he should, or whether one is doing well enough; in temporary rejection of all formal learning situations; in relief found in selecting more conventional offerings; in avoidance of submitting oneself to evaluation or criticism. Yet, as one parent wrote about a freshman, "The freedom and absence of punishment . . . has restored in him the vibrancy that we unhappily watched diminish and die in grades 3-12 . . . to call his present state a rebirth is not an exaggeration" (39, p. 216).

A study of the effectiveness of an individualized approach to the learning of history at the college freshman level was made in the fall of 1966 at Millikin University.
The results of the study showed that there was very little difference in the amount of factual knowledge gained by the students using the individualized approach and those who were taught by the lecture method. Sixty-eight percent of those who took independent study were happy with it, but only 12 percent of the same students wanted to remain in independent study for the next semester. Hamilton (23) found a lack of incentive to be the major obstacle to success in the course. He suggested research projects which would involve more creativity and challenge to give the needed motivation. The results of the study indicated that independent study should be utilized by certain students at the freshman level, those students who have a strong desire and are somewhat creative. One-third of the students strongly favored the individualized approach and Hamilton's conclusion was that a program should be devised and provided for this group.

A 1966 study carried out by Distasio, to evaluate the effectiveness of independent study in a college general education class, showed that

1. There was no overall difference in performance by the control or experimental groups.
2. Teacher's attitude and ability to use independent study methods may have an influence on student achievement.
3. Students of above average ability seemed better suited for independent study than did those of average ability.
4. The average student seemed to do better in a traditional class setting.
5. Those who tend to be more individualistic in their approach to new ideas did not do as well, on the whole, as did their control group counterparts (16, p. 467-A).
A study in 1954 in J. G. Umstattd showed that the lecture method was not a popular method of teaching and gave the following reasons for its lack of use:

1. Other procedures can serve more adequately.
2. It is not fitted to their field of study.
3. The students prefer other methods.
4. It produces poor results.
5. It consumes too much time.
6. It is inappropriate at the college level (37, p. 63).

It was advocated that even though the lecture method was of value in conveying a large amount of material in a short time, introducing a lesson, and stimulating interest, it was a weak method (31). Interest is a result of activity and the student is too passive in a lecture method to get very involved. The trend is away from the lecture method to a combination of lectures, discussion, and tutorial approach (37).

Umstattd found that the discussion method was used more frequently than other methods. He gave the following reasons for its popularity:

1. It prompts student interest.
2. It develops independent thinking.
3. It is recommended in a professional course.
4. It broadens the student's horizon.
5. It efficiently transmits essential information, and
6. It has been proven effective by experimentation (37, p. 65).

It was shown that while the use of the formal lecture decreased 50 percent, the use of the discussion method increased 51 percent, and the use of the tutorial method increased 20 percent (37). Francis C. Rosecrance in 1962 found that the most popular method was one that involved
multi-methods or combinations of lecture, discussion, and other techniques. He felt the discussion class would continue to be popular, even though it too had some weaknesses. It was pointed out, however, that the discussion class is a good way to build attitudes, due to the fact that peer force, especially in groups, is more forceful than the influence of the instructor through a lecture (31).

When an instructor uses a multivariated plan in teaching, his role changes considerably. The instructor becomes a director of learning instead of a transmitter of information. He has the task of creating a climate that will be conducive for learning. In other words, the instructor makes available the circumstances that will create interest and skill in learning. Leuba sees the main function of the instructor to be that of providing the type of guidance that will accelerate "the acquisition of experience and skill in effective group functioning. To a degree, he can provide in a manual the fruits of experience. This needs to be supplemented, however, by guidance in the group meeting" (24, p. 29).

Independent study with no control from the instructor was suggested by some educators but many feel that the contact and counsel with the instructor and classmates are too vital to omit. James H. Ford writes, "The general principles of any study you may learn from books at home; but the detail, the colour, the tone, the air, the life which makes it live in us, you must catch all these from those in whom it already
lives" (8, p. 78). Also, Cardinal Newman, in expressing the importance of the instructor, writes: "In fact it would be unwise and highly undesirable to omit from any teaching program such things as group discussion, faculty lectures and laboratory experiences in favor of only reading on the part of the students" (20, p. 78).

Directed study, which is independent study with teacher-controls and teacher-direction, and classroom contact with teacher and other students, appears to be a method that shows much potential. However, any method needs thorough evaluation to determine its weak and strong points. This study provided data which can be used to determine its effectiveness in enhancing the learning process in American History at the college level.

Limitations

The following limitations were imposed upon this study:

1. This study did not attempt to ascertain the influence of such aids as study carrels and audio-visual materials upon the student's achievement or attitude.

2. This study did not attempt to ascertain the effect of any written materials specially prepared for such a program.

Assumptions

It was assumed that each student in both the experimental and control groups during pre-testing, post-testing, and
during the regular events of the course of study, would so conduct himself that his actions would be in harmony with the purposes of this study.

There was no reason to assume that, as the students registered for class, there would be an imbalance in sex and socio-economic background. Consequently, there was no effort made to balance the groups on these two measures.

Definition of Terms

The terms, as used in this study, were defined as follows:

**Independent study**—a learning situation in which a student is motivated mainly by his interest and his own desire to learn, and in which direct supervision is held to a minimum or eliminated altogether.

**Directed study**—a learning situation in which one is motivated by his own interest and desire to learn, and by the supervision and guidance he receives from his instructor. Directed study includes lectures, discussion sessions, and related outside readings.

**Control group**—refers to the group of students that engaged in traditional classroom learning experiences.

**Experimental group**—refers to the group of students that engaged in directed study.

**Traditional class**—a setting in which the entire class normally remained for a specified time each day, and the lecture method was used almost exclusively.
Procedures for Collecting Data

Three instructors and eighty-four students enrolled in four classes of American history from two similar church-related, independent, liberal arts, suburban colleges were used in this study. The study was for the duration of one trimester, which included approximately forty-five hours of class time from September to mid-December, 1968.

The subjects were freshman and sophomore college students from a variety of cultural and educational backgrounds. The basis on which the two groups were equated was the raw score on the Otis Quick-Scoring Mental Abilities Test. No student was younger than seventeen years and eleven months, or older than twenty-two years and nine months at the beginning of the study.

The two groups studied basically the same material for approximately the same amount of time, and had the same overall course objectives.

The experimental group spent their time divided into three areas of work: outside reading, classroom discussion, and lectures. The students spent approximately the same amount of time in each of the three areas. The lecture method was used exclusively with the control group.

At the end of the trimester the subjects took the same forms of the same tests given at the beginning of the term, with the exception of the Otis Quick-Scoring Mental Abilities Test. The tests which were administered before and after
the experiment included the *Crary American History Test*, California Study Methods Survey, and Remmer's Test of Attitude Toward any School Subject.

In control and experimental groups, the units of study included the American Nation from Age of Discovery to the end of the Civil War.

The basic text for the course in College I was *The Federal Union*, by John D. Hicks, George E. Mowry, and Robert E. Burke, published by the Houghton Mifflin Company. In College II the basic text was the *National Experience*, by John M. Blum, Bruce Catton, Edmund S. Morgan, Arthur M. Schlesinger, Jr., Kenneth M. Stamps, and C. Vann Woodward, published by Harcourt, Brace, and World, Inc.

The Measures

Alternate forms of the four measures were given to the subjects preceding the course during the first week in September for the students in College II, and the fourth week of September for students in College I. The post-tests were given during the first week in December for the students in College I and during the second week in December for the students in College II. The post-tests did not include the *Otis Quick-Scoring Mental Abilities Test*. The tests used were the *Crary American History Test*, Remmer's Test of Attitude Toward any School Subject, California Study Methods Survey.
CHAPTER BIBLIOGRAPHY


CHAPTER II

RELATED RESEARCH

The Development of History in the College Curriculum

The source materials on the teaching of history on the college level are very meager. The subject of history per se is not so old as many other subjects, and before the nineteenth century, when it was taught, it was not so popular as it is today. Also, what one today would consider a college or university education did not begin until the medieval period.

The Greeks considered the study of history to consist mainly of learning and remembering a list of names and legends. As the Greeks found difficulty in justifying such a system of simple rote memory of just dates and facts, historical exposition gave way to the study of moral criticism (14). However, the Greeks did consider subjects dealing with government to be of great importance (13).

With the advent of the third century B.C., the Greeks of Southern Italy came under the control of the Romans. By the second century B.C. many of the facets of the Greek culture, especially education, had been adopted by the conquerors. Along with such subjects as grammar, rhetoric, dialectic, arithmetic, astronomy, music, and literature,
history had become a part of the Roman school curriculum. By the end of the first century A.D., history had become somewhat more important in the curriculum, especially since it aided in preparing men for public service (13). Cicero felt history to be the substance of rhetoric, and claimed that history "... bears witness to the passing of the ages, sheds light upon reality, gives life to recollection and guidance to human existence, and brings tidings of ancient days ..." (14, p. 34). Cato said, "Grasp your matter and the worlds will come of themselves ..." (14, p. 34).

One can see that, among the Greeks and Romans, history was not taught for the same purposes for which one would study it today. Even during the early part of the middle ages when learning was on the decline, the little history that was taught was given as an explanation of the unfolding of God's supernatural plan. As can be seen from Isidore's treatise in Orosius' Seven Books of History Against the Pagans, history had importance even though it was not held in the same esteem as was logic (33). The medieval society was composed of many social classes, and only the upper class received anything close to an education. Until the rise of nationalism, the clergy possessed the keys to all education and most of the people received very few opportunities to gain a formal education.

With the coming of the twelfth century there came also the rise of nationalism, but as important as nationalism was
the coming of the age of scholasticism, which was to last until the fifteenth century. During this time there was a search for knowledge based both on divine revelation and Aristotelian logic. As a part of this search for knowledge "... the corporate spirit of the middle ages, which made men of the same occupation associate in permanent guilds, led scholars, as the revival of learning in the twelfth century, to do the same" (28, pp. 23-24). These guilds later developed into universities such as Bologna, Paris, and Oxford.

In the early days of such centers of learning as the University of Bologna and the University of Paris, the "nation," a group of students from one country, often controlled the college. The learner was normally past the age of thirty. There were, at first, no regular buildings; the class met where it could; and the students hired the instructor. The instructor was hired to lecture and has been described as "... towering over his audience in his lofty rostrum, ... remote and impressive, in the august elegance of his professional 'Regalia'" (30, p. 133). The completion of a course meant that the student had absorbed all that the professor knew, and was therefore prepared to go out into the world to meet and solve the practical problems of the day. However, this knowledge offered few, if any, pragmatic solutions to the man of the fifteenth-sixteenth century (14). The medieval curriculum contained very little
history; the emphasis was upon grammar, logic, psychology,
and moral and natural philosophy.

The medieval curriculum was primarily designed to produce Latin scholars. In 1565 John Strom set forth the details of his curriculum in his classic letter *Epistolae Classicae*. It had ten phases and there was no emphasis on such areas as mathematics, geography, natural philosophy, astronomy, or history. The curriculum focused on the "... acquisition of pure, fluent, ciceronian eloquence" (13, p. 107). It was an age in which how something was said was more important than what was said.

One author was later to write, "the distinguishing note of the humanistic Renaissance, as contrasted with medieval times, was the goal of understanding ancient literature and ancient civilization" (14, p. 157). History was slowly to be given more prominence in the next age than it had in the middle ages.

The opening of the sixteenth century was the beginning of the end of the middle ages. The Renaissance was coming into being and would have a great effect on learning. The printing press, which made books more available to the common people, made it possible for many students to gain their education without leaving their home area, especially their home country, to travel to a distant university (28). Also "the New Wine of Humanism and Protestantism could no longer be contained in the old schools of Catholic medievalism" (13, p. 66). Following Luther's attack on the Roman church,
the training centers for the priesthood saw a sharp decline in enrollment, especially in Germany.

The students and the public found an outlet for learning independent of the university, for many of the great writers and teachers were beginning to work separate and apart from the university. This change necessitated a period of adjustment which was lengthened and made more difficult by theological wrangling. "Throughout the sixteenth century bigotry and bitterness hampered the schools; only when toleration became the general practice did progress become possible" (13, p. 71). The new aim of the universities and colleges became that of teaching theology, medicine, law, and philosophy. The study of history was taking on a greater importance, but only in the context of law and, to a lesser extent, of philosophy.

The Protestant Reformation was a revolution which affected not only the church but also the political, economical, philosophical, literary, and educational systems. For almost a thousand years the Teutonic races had been educated in the institutionalism, and under the control of, the Roman world. Their culture had been brought in from the South and more or less forced upon them. However, in the Renaissance period, the people of Northern Europe found the stimulus which would lead them to be free and to develop their own type of culture. The greatest freedom they could have would be freedom from the church of Rome. Every Protestant placed
himself under the control of the state, which to him meant individual freedom and individual worth.

Wherever the Reformation had been chiefly a religious rather than a political and ecclesiastical movement, the interest in education and the effect upon it were direct and immediate (25, p. 3). Luther gave the study of history an important place in the school curriculum. He and others emphasized the contextual analysis of the Bible by the use of history and language (14).

Pietro Paolo Vergerio, a Renaissance writer famous for his treatise On Good Manners, placed high importance on the study of history, especially for the preparation of scholars and statesmen. He felt that its practical lessons were always applicable (14). Another Renaissance writer, Juan Luis Vives, who wrote The Transmission of Knowledge in 1531, had high esteem for history. He advocated the importance of history in the writing of law (34).

Education in the period from the thirteenth to the seventeenth centuries found little use for science and the Renaissance classics, especially in the University of Paris. Medicine and law underwent very little change, whereas greater emphasis was placed on the study of the Bible and history in the vernacular. However, there were those such as François Rabelais, who favored the classics and were extremely critical of the medieval curriculum. In his Gargantua he writes to his son of the importance of history as follows: "Let there be
no history which you have not ready in your memory . . . ." (4, p. 220).

In the period of the seventeenth, eighteenth, and nineteenth centuries there was a clear commitment to the classics, with special emphasis on Greek and Latin history (18). In France there were private and national colleges and universities. In the 1700's French history and the French language were stressed in the interest of good citizenship (4). Just prior to the French Revolution a significant intellectual revolt had taken place, rooted mainly in the sciences. Reason became the chief and final authority. Absolute truth was the goal of a search, not of the scriptures or the classics, but rather of nature's laws as they were discovered by science. As a result, philosophy was subordinated to science and theology to history. It was advocated that history provided significant facts regarding man and society (33). Therefore the period just prior to the revolution prepared the people to accept the importance of history on a greater scale following the revolution. Montaigne said regarding the importance of the study of history,

History can be made a barren study if it is confined to facts and dates; but if used to provide material for the exercise of the judgment, as Plutarch so admirably used it, it is a study of incomparable worth which throws light on the abstrusest parts of human nature (4, p. 227).

It is very difficult to trace the progress of the subject of history in the English university system. Until after the Renaissance, the term "history" included areas which
today would not be included. The records are few which
describe the rise of history to a position of importance in
the English system of higher education (42).

Prior to the Reformation, the subject of history re-
ceived very little attention. Even during the early Renais-
sance, history did not increase in importance beyond the
understanding of the "... historical allusions of the
classical writers" (42, p. 6). History was little more than
excerpts from the classics which allowed no continuity and
no information on modern themes.

A different attitude came with the sixteenth century
because of dissatisfaction with the educational system. In
England the need to fit men not for the church, but for
scholarship, social positions, and warfare was sharply felt.
In 1582 a manual of English history was ordered by the Privy
Council to be used in the schools. Men such as Sir Humphrey
Gilbert and John Milton promoted the study of ancient and
modern history (42).

It was much more difficult to get history into the
English universities than into the elementary schools. In
1622 the first Camden professorship of ancient history was
founded at Oxford, but it was not until 1724 that modern
history was allowed entrance. Even then it was recognized
as a subsidiary to the study of modern language and "... the (Regius) professors scarcely ever lectured on the subject
of history" (42, p. 55). The first curriculum of the
University of London in 1828 mentioned history but not as one of its main subject areas (42).

In the nineteenth century English universities began to give more time and respect to the study of history. In 1848 two honor schools were set up at Cambridge, one of which, the moral science school, included modern history. In 1850 Oxford set up a modern history course covering the time from 1 A.D. to 1789. Interest in history had grown to the point that the University commission in its 1850-1852 report recommended four honor schools, one of which was to include jurisprudence, history and political economy (42).

Interest was growing, but not without opposition, for a long fight was held before the modern courses found security in the curriculum. The great Jowett, a leader in the movement to modernize the curriculum, was penalized for his efforts. He was allowed only forty pounds per year for ten years as a Regius professor at Oxford. It was in 1865 that his salary was raised to five hundred pounds. In 1865 he wrote:

There is a great change in education at the University, especially Oxford. When I was an undergraduate (1836-1839) we were educated upon Bishop Butler and Aristotle’s Ethics, and almost all teaching leaned to the support of authority. Now there are new subjects, modern history, and the physical science . . . " (42, p. 56).

History, in the English system, continued to grow in importance and by 1872 both Oxford and Cambridge Universities started honor schools for the study of history. Constitutional
history after 1885 received strong emphasis at Cambridge along with firsthand knowledge of sources and original authorities. The University of Leeds, which was organized in 1874, chaired classical history and literature. By the opening of the twentieth century, history had a respected position in all the English universities. Also those prospective teachers of history in the secondary school no longer found difficulty in getting courses to prepare them for their work (42).

The American colonists in the seventeenth and eighteenth centuries who settled in New England, the middle colonies, and Virginia, brought the basic English system of higher education with them. The eighteenth century university in Northern Europe had revamped its curriculum to deemphasize research and accentuate teaching, or the dissemination of knowledge, especially to the youth. The role of the professor was of a pastoral nature, overseeing not only the academic but the moral life of the students. This was the educational climate in which Harvard was founded in 1636. This type of education was found very acceptable to the desires and needs of the English-speaking colonists (28).

The colonial curriculum contained a set body of knowledge which was prescribed for all. Harvard, being much like Oxford in the seventeenth century, stressed classical studies which included political science, economics, psychology, logic, ethics and the Bible. Outside of Hugh Jones, the
first professor of mathematics at William and Mary, who advocated that the college should assume the responsibility of training civil servants by teaching history, there was little emphasis on history in the American college. History was to gain importance only after the middle of the eighteenth century. For about this time, the study of history was gaining popularity not only in England but also in American colleges and universities (13).

History, especially American history, became popular in America following the Revolution. Even though the classical curriculum was given great emphasis until the middle of the nineteenth century, many modern courses such as history and economics were added to the curriculum of the American college and university (11). One of the factors influencing the introduction of courses such as history was the secularizing effects of the French and the American Revolutions. The power of the church over the curriculum decreased, while the power of the people through statesmen increased (25). It has been maintained that over half of the aims of higher educational programs as envisioned by Thomas Jefferson related directly to the study of history (25).

Due to the circumstances of the southern states of the United States in the ante-bellum period, the colleges and universities programmed their higher education system toward politics and government. Pride in holding public office was instilled in the young men, and their highest ambitions were
to be representatives of the people. Therefore Southern education demanded a thorough knowledge of history, politics, and government. A regular chair of political economy and history was established in 1824 at the University of South Carolina. The students studied not only classics but also history of the United States and the South (45).

Interest in American history continued to increase due to the influence of such men as Jared Sparks and George Bancroft, who wrote from a patriotic viewpoint. Sparks, who in 1837 wrote a highly successful and highly complimentary work on George Washington, became the first professor of secular history in the United States (31). George Bancroft created great interest in American history in the last half of the nineteenth century by his twelve-volume History of the United States. A Jacksonian Democrat who was "... a seer rather than a restrained and disciplined historian, Bancroft devoted his energies to preaching the message of America's destiny" (31, p. 170).

As early as 1825 the Amherst college faculty criticized the governing body for a lack of courses such as French and Spanish for businessmen, American history and citizenship, and for too much emphasis on the classics. The faculty advocated that "... in an age of universal improvements and in a young, free and prosperous country like ours, it is absurd to cling so tenaciously to the prescriptive forms of other centuries" (40, p. 123).
Not all the colleges shared this feeling. As late as 1850, when almost all colleges were teaching history, Dartmouth College gave little emphasis to the teaching of history. In fact history courses were considered to be "culture courses" and were placed in the curriculum during the winter term when only a few students were enrolled (40). The literary societies tried to reform such colleges as Dartmouth, and many times the literary society had more books on history than did the college (40).

The changing American scene after the 1860's caused an increased interest in history and political science in the college curriculum. The accumulation of a national heritage, the effects of the industrial revolution and scientific discoveries, and the spread of political democracy all brought a greater interest to the study of history (25). History, until the Civil War, had been studied mainly as a part of another course such as literature or as a support-field for political science, but by 1880 it had become respected as a discipline and was dissociated from other literary forms (25).

Just as the English influence was strong on the college curriculum in the period from the colonial days through the Civil War period, the German influence was felt from the late 1880's through the first World War. Many of the American historians of this period received their graduate training and their Doctor of Philosophy degrees from German universities. These men, upon returning to America to teach and
write, brought many innovations with them. One of the main innovations was the institution of the Doctor of Philosophy degree, which several universities began granting to those students who did extensive research in a certain field of study. Also such teaching methods as the seminar and the lecture method were established along with the development and use of laboratories. A spirit of searching for knowledge and an emphasis on productive research also came from the German universities (5). Much of the work written by these men was more factual than the history written earlier, but not so interesting to the readers, especially those who enjoyed history only when it was complimentary to the United States. The effect of the elective system was another factor which was very dramatic in its influence on the curriculum. The combined effect of the German influence and the elective system brought the downfall of the classical system (12). The role of the professor in developing the character of his students and as expositor of knowledge increased.

In the early 1920's and in the decades following, colleges created history courses with such titles as "American Civilization," "American Studies," "American Cultures." One reason for such nationalistic emphasis was to rally support for the country in time of stress. There were individuals who felt that there was a certain minimum knowledge of the intellectual and spiritual traditions that one must know in order to be considered educated (40).
In 1920 there were usually two courses in American history that were offered to college students. One was a required survey course for undergraduates while the other was an elective for upper-level students. The lower-level students had a textbook written by a professional historian who had an interesting and literary style.

The philosophy was that the "... fundamental work of the class is, not to keep posted on current affairs, but to study the elements under the guidance of a textbook, and an inspiring teacher to interpret it" (25, p. 261).

The upper-level course did not require a text, for most of the work was to be done in the library. The students were to choose an important period and study it in depth from original sources and works of historians. The rationale for such studies was not only to find out "what" and "when" but "why." The feeling was that "... stressing the stimuli in history will almost inevitably lead to treating history as a continuous or evolutionary process, which of itself greatly increases the interest of the subject" (25, p. 263).

Following World War II the emphasis was placed on general education. There were many experiments with courses designed to give the students a general introduction to several fields. Most of the courses were broad surveys of a number of related fields and were criticized as being superficial and difficult to staff (12). In the late 1940's and early 1950's, the American colleges and universities began
to place a greater emphasis than ever before on the study of conditions inside and outside of the United States. No longer were foreign nations far removed and no longer could America play the isolationist role. Priorities were established on knowing the history and development of other nations as well as our own. This emphasis led to a greater interest in the social studies, especially history. History soon became either a required subject or an elective in nearly every American college. The decade from the late 1950's to the late 1960's saw from 5 to 10 percent of the curriculum made up of social studies courses.

By 1969 most colleges and universities (over 90 percent) were specifying an undergraduate requirement in the social studies. Among the colleges not doing so were those not prescribing courses or credits in any area and those with specific requirements in history (12, p. 25).

The college of the future may be expected to take an even greater interest and a more active part in solving social problems, in achieving human rights, and in achieving equitable distribution of goods and services. Patterson, in planning the curriculum for the future, stressed the importance of history. He saw history as "... a central subject in his triadic design for liberal education" (34, p. 90).

History will not be taught in the future as a general survey course but by historical problems and periods in depth in order that the student may "... see history as the efforts
of people and societies to deal with some recurrent problems of social order and to grasp principles of historical explanation and the nature of evidence as ways of understanding basic complex social processes" (34, p. 91).

As society grows more complex, history will be one of the tools by which man can learn not only to adjust to his society but to build an even greater society. The importance of the study of the history of one's own nation was pointed out by Rivlin when he stated:

Thus, the study of American history encourages the development of insights into how one society has reacted to events in time and a search for the constants that have operated in determining the course of American history. This search deserves major emphasis for it is the discovery of these constants that provides the historian with the framework which gives his facts a logical sequence, an inner coherence . . . (38, p. 60).

Methods of Teaching History on the College Level

When one writes on the method of teaching history on the college level, one is forced to write from a generalized approach that includes almost all college subjects. One reason for this approach is the lack of materials which are limited to the method of teaching any one subject, particularly history. Also, it appears that until the end of the first two decades of the twentieth century nearly all college courses were taught in much the same way.

There have been three basic methods of teaching history at the college level. Historically, the lecture and discussion
methods have been used almost exclusively. In the past four decades, the use of independent study or variations of independent study have become popular in many colleges. As will be shown in the following pages, each of these methods has weaknesses and strong points. One source, in writing of independent study, stated that it was "... unwise to scrap the old because it is old or to accept the new because it is new ..." (23, p. 24). The writer advocated that one "... should instead exploit the good features of these time-honored methods ..." (23, p. 24).

Since directed study, defined in this study as a combination of certain features of each of the three methods, is the subject of this study, each of these three methods is discussed below.

The teaching done by professors in the medieval period, when the colleges and universities were first established, was based almost completely on lectures. They were hired to do this by the guilds because books were few and hard to come by (31). Since the professor had the books, or access to them, and usually the students did not, his role was to simply impart information. The students spent the weekdays taking notes on lectures and recopying them, and on weekends they would gather at the beer hall or at some similar place to discuss the lectures. The discussion served not only to vent excessive steam but also to prepare them for the defense of their theses before a group of professors (30).
Not all professors limited their experiences with the students just to the lecture. There were those who felt it their responsibility to give more guidance, and many enjoyed the interaction of students in discussion (35). The outstanding professor, Robert of Sorbon, advocated that nothing is "... known perfectly which has not been masticated by the teeth of disputation" (30, p. 134).

The lecture method has always been the subject of much criticism even in the days of few books and much illiteracy. It was felt that, as books became more readily accessible and more people were trained to read, lectures should be curtailed (36). Henry Sidgwick wrote in the nineteenth century regarding the use of lectures:

I regard the ordinary expository lecture—in most subjects, and so far as the most intelligent class of students are concerned—as an antiquated survival; a relic of the times before the printing-press was invented; maintained partly by the mere conservation of habit and the prestige of ancient traditions, partly by the difficulty which I admit of finding a right substitute for it (36, p. 8).

The German university, which greatly influenced the teaching style of the American college and university in the latter part of the nineteenth and the first part of the twentieth century, made great use of the lecture method. Even though its use was highly criticized in the nineteenth century, the lecture continued to predominate. The following is a statement by a student after his first German university lecture:
The eminent man came in, according to custom punctually at the quarter; he carried in his hand a manuscript yellow with age; he did not seem to look at his audience, but fixing his eyes on the manuscript he began to read it aloud with slow monotonous utterance. I glanced around the room; every pupil I could see was bending over his notebook, writing as hard as he could.

The unfamiliar surroundings and the unfamiliar language stimulated my imagination, and I fancied myself back in a world more than four centuries older, in which it had not yet occurred to Coster and Gutenberg that it would be a convenience to use moveable type for the multiplication of copies of the manuscript (36, pp. 29-30).

In 1928 Sir Arthur Quiller-Couch wrote that the increased use of the lecture was not only because of a lack of a better substitute but also because of an increase in the number of college students. Olive Shropshire wrote in 1936 that in English colleges the lecture method is the most prevalent method used with little or no time allowed for discussion. He did mention, however, that the use of individual work was showing signs of growing popularity (42). In The American College, published in 1962, it was pointed out that college teaching and lecturing had been so long associated that the image of a college professor was that of a lecturer. The popularity of this concept came mostly from the idea that the instructor's primary function was that of transmitting information (41).

In the twentieth century, however, many of the colleges did not hold on tenaciously to the methods of the earlier centuries. It is true that earlier methods were continued,
but they underwent certain modifications. John Brubacker and Willis Rudy in the late 1950's stated that the methods were modified to meet the new emphasis on such qualities as "... student initiative, critical judgment, self-reliance, and power to organize" (6, p. 274). The lecture method was still popular, but was used more to interpret than to give information. Rosecrance reported in 1962 that a combination of lecture and question discussion methods would likely continue to grow because it was being used so much (39). The discussion method became more popular as students engaged in more independent work.

The library also was becoming more important and the trend began to change from "few books" courses to the multi-texts and bibliography for outside reading.

In evaluating the merits of different methods of teaching at the college level, one finds that there is a scarcity of data on this topic. The results of well-planned and well-executed experiments to determine the relative merits of various teaching methods at the college level have not been widely circulated. Clyde Gwinn, lamenting the lack of materials available in 1930, wrote,

Published reports dealing with this fundamental phase of the improvement of college teaching are decidedly scarce and unpublished reports have come to the attention of the Yearbook committee from only one or two sources. It is probable that many worthwhile experiments in this field have not been brought to the attention of the educators in general because of failure on the part of the investigators to write up and publish their experiments (21, p. 1).
Anne Gayles, writing on the same subject in 1966, complained of the same scarcity, and also of another problem in obtaining meaningful research data on college teaching methods. Gayles wrote:

Depending on which authoritative analyses and experimental investigations are selected, lecture and discussion methods can be supported as the best or poorest of all possible teaching procedures. As in the case of any teaching procedure, the values of the lecture and discussion methods depend on who is using them, the nature of the experience afforded students, and the kind of learning outcomes sought (18, p. 99).

There are a few studies which compare and evaluate the lecture and discussion methods, and information from this research will help to give one an insight into the effectiveness of the two methods. The lecture has been defined by Gayles as

... a process of teaching in which the instructor gives an oral presentation of the facts, concepts or principles. It is the teaching procedure that involves the clarification or explanation of some major idea that has been cast into the form of a question or a problem (18, p. 95).

Gayles defined the discussion technique as

... the free and unhampered consideration of a problem or problems by a cooperative group of persons talking together under the direction of one of its members (18, p. 96).

In surveying the literature available, one can find certain comments regarding the prevalent use of the lecture method. Already it has been shown that the lecture method has a long history. Gwinn in 1930 reported a study which
showed that over 90 percent of the faculty used the lecture method at least 43 percent of the time (21). Following World War II, when new media such as educational television became accessible, the lecture method maintained its importance. Rosecrance in 1962 advocated that lecturing by television continue, but that television lecture be followed by discussion in small groups (39).

Kenneth Walker in 1963 reported that the formal and informal lecture methods were utilized in teaching social studies courses nearly twice as often as in the total college program. The discussion method was used only slightly more often in the social studies program than in the total program. Walker also pointed out that in the social studies courses the informal lecture was used 21 percent of the time and formal lectures 15 percent of the time (46). Another study on the same topic by Simpson and Brown showed the lecture method as being used 48 percent of the time, and discussion 31 percent of the time (46).

Gayles gives several advantages which the lecture method has over the discussion method. They are as follows:

One, it gives life and personal meaning to ideas which often seem cold and irrelevant on paper.

Two, it can channel the thinking of all the students in a certain direction while at the same time clarifying and drawing attention to certain areas.

Three, it can easily be adapted to the needs of the situation.

Four, it can serve as a good pattern for proper oral English expression.
Five, it can easily be organized so as to be in harmony with sound learning principles. Six, it has no equal in explaining a process, introducing a new topic or a new concept, or summarizing what has been taught. Seven, it is economical in time and materials used (18, p. 95).

Walker, in his evaluation, reported that people are accustomed to listening, and that a lecture can inspire the students to new heights. Also he added that through the lecture, the instructor could interpret complicated materials. Finally, it can cover a great deal of material quickly and bring information to the students which may not have been readily accessible (46).

According to Frank McVey, the lecture system has its merits, "... but as a method of instruction it has been greatly abused, especially in undergraduate courses. Such subjects as language, mathematics ... do not use the lecture method ... , but the social sciences ... are steeped in it" (29, p. 259). The formal lecture can be utilized effectively but it can be used too much. The freshman, according to Joseph Finkelstein, needs to have the experience and the maturing pressures of expressing his ideas within the security of his class and classmates (16).

Abbott Lawrence Lowell, the president of Harvard University from 1909 to 1933 held to the opinion that the lecture was an indispensable part of the University, but one could overuse it. He saw two dangers in the lecture method.
1. It tends to place the student too much in a purely receptive attitude of absorbing the information put out to him and does not force or compel him to extract it from the books for himself. In other words education becomes passive rather than an active process.

2. If the lecture is regarded as the main duty of the professor—then the departments and university will value themselves in proportion to the number of lecture courses offered (27, p. 263).

Some sources have pointed out that the lecture method has certain advantages for the highly talented student and also for those in the lower quartile (21). Also research points out that, for immediate recall, lecture is much better than the discussion method. However, the discussion method seems to produce better results on delayed-recall tests (21).

Not all the research regarding the use of the lecture method is complimentary. As was pointed out earlier, the method has received some very sharp criticism in the previous centuries. Paul Klapper in 1920 was highly critical of the lecture method for the freshman college student. He wrote:

To him the lecture method is unknown, and he flounders about a good deal if he is left to work out his own salvation; and then, too, just when he needs personal direction and particularly when, as a youth away from home for the first time, he needs some definite and unescapable task that shall teach discipline and duty as well as give information, the lecture system gives him the maximum amount of liberty with the minimum of aid or direction (25, p. 265).

J. G. Umstattd in 1954 reported that the lecture method was the least-used procedure in the college classroom. This report is somewhat contradictory to Walker (46, p. 243), but
he gives the following reasons:

One, there are other procedures more appropriate.
Two, lectures were not suited to the subject area;
Three, the students preferred other methods;
Four, the lecture method produced poor results;
Five, the lecture method consumed too much time; and
Six, it was inappropriate at the college level (44, p. 63).

Umstattd also pointed out that from the instructors he studied, he found that social studies instructors advocated less emphasis on lectures, both formal and informal, together with less emphasis on discussion. He found that these instructors wanted to emphasize student reports, laboratories, demonstrations, sound films, forums, panels, and guest instructors (18).

A study of 1105 students by Simpson and Brown showed that the lecture method had only a 35.6 percent "total learning quality" while the discussion method had a 58.3 percent "total learning quality" (18, p. 244). Theodore Chen in 1940 reported, regarding the lecture:

Neither the professor nor the student needs to be more than half awake for this process to go on . . . the student feels that if he fills his seat and makes some show of taking notes, he is doing his part. Neither has to be quickened, intellectually or emotionally, by the subject in hand (46, p. 6).

Other caustic remarks have been made by modern curriculum writers in pointing out the weaknesses of the lecture method. M. Alderton Pink claimed:
Surely no system of teaching can have ever been devised with so little regard for ordinary efficiency. Batches of students are set to take imperfect notes on a probably imperfectly delivered lecture by a man who has either taken his material from books that ought to be read by the students themselves or is dictating what is really an original textbook, which obviously, in the interest of economy in time and labor, to say nothing of accuracy, ought to be printed (46, p. 243).

Pink listed four main faults with the lecture method as he saw it.

One, it did not induce self-activity;

Two, it was a waste of time because the student could read the materials faster;

Three, there was little motivation for the students to think through the topics covered; and

Four, it tends not to emphasize student reading as it should (46, p.

Gayles, in giving her opinion of the weaknesses of the lecture, felt that the pure telling or showing of procedures did little to develop attitudes. She gave seven dangers of the lecture method to the learning process:

One, it can encourage the knowledge as an end in itself.

Two, it can result in too much stress on subject matter to the lack of importance on the learning process itself and the objectives of the knowledge of the subject matter.

Three, it can result in a teacher-centered class.

Four, it can result in the student's accepting the lecture as the final authority rather than exploring the material further for himself.

Five, it can result in a passive method of learning.

Six, it encourages a competitive approach rather than a cooperative one to learning.

Seven, it allows little time for the development of communicative skills and problem-solving activities (18, p. 95).
The discussion method is often considered to be the antithesis of the lecture method. The discussion method, though having certain disadvantages, does have much in its favor. It is a method that is much older than the formal lectures; that is particularly true of the Socratic method of discussion. The discussion method was used in the medieval university but not so much as a method of the instructors as of the students on their own free time. In advocating the use of the discussion method, one "... assumes that desirable learning outcomes are possible when students argue, compare, judge data, search sources, and draw conclusions; and that higher intellectual and attitudinal goals are obtained when students have an opportunity to practice thinking for themselves" (18, p. 96).

This was verified in a study in 1966 by Jimmy Williamson, at the secondary level, who found that the opportunity to search out sources, draw one's own conclusions, and defend them did not cause the students to learn less factual knowledge than a group of students in a control group who were taught mainly by a lecture method. Williamson found no significant mean gain in factual knowledge, as measured by an objective history test, but the students in the experimental group did show a significant mean gain in attitude toward the study of the subject (48).

Umstattd in 1954 and Rosecrance in 1942 reported a growing interest in the use of the discussion method (44, 38).
The main reason behind its growth is that it lends itself better to promoting student interest, to developing student thinking, to transmitting essential knowledge, and to broadening of the student's horizon (44). J. P. Powell reported that the advantages of small group discussion included such items as mutual criticism, free exchange of information, opportunity to expound and defend an argument (35). Gayles feels that the discussion method has the advantages of involving the student; it allows for the practicing of assessing, relating, summarizing, and applying of ideas; it also allows for the development of oral expression and leadership development; it stimulates critical thinking and deeper understanding of the material under study (18). Rosecrance advocated that the main purpose and advantage of the discussion method was the developing of certain attitudes (39). A group discussion allows for "... presentation of a variety of problems enabling a number of people to gain experience in integrating facts, formulating hypotheses, amassing relevant evidence, and evaluating conclusions" (41, p. 326). The freedom to express one's feelings in a nonthreatening environment is one of the steps toward the goal of attitudinal change. Not only does the group provide an opportunity for expression, but it allows for and provides the pressures of the group to motivate attitudinal change. Walker reported the results of a University of Minnesota study which pointed out that a vast majority of students expressed preference
for the small discussion class because it allowed for more personal contact, less chance to cheat and bluff, and more informal discussion (46).

The effects of the discussion method have been studied by Powell and Jackson. They reported that, under certain conditions, it can be successful. The instructor must understand group dynamics, make preparation for the discussion itself, and carefully guide the discussion (36). Powell advocated that to promote successful group interaction there must be a minimum of environmental distractions, the discussion should be problem-centered, and the leader should act as a mentor rather than as a judge of performance (35). Walker feels that the discussion method is more difficult than the lecture and the instructor using the discussion method must show tact, have great knowledge of the subject matter, and evidence outstanding instructional ability (46). If these factors do not figure into the program, the results will be less than satisfactory.

The discussion method has been criticized as being less effective with large classes of, say, thirty-five or more students. The lecture method does not share this weakness. In discussions where only a few students participate, it is easy for the remainder to lose interest. It has been suggested that the discussion method is a slow method by which to learn, especially for the brighter students. Also, the unstructuredness of the method allows for digression. When
the discussion leader fails to remain objective, it causes many participants to get the feeling of unfairness. In comparison with the lecture method, the discussion method has produced meager rewards in the matter of immediate recall of information. Some feel that inexperienced teachers often lack the expertise to carry out effective group discussion (18).

Research in instructional methods at the college level is not as voluminous, adequate or objective as at the secondary and elementary levels, but Gayles gives a succinct summary of the situation.

The skillful teacher has many methods and techniques at his command. Not one of them can be regarded as the best, for there is no best technique. In fact, techniques which are good for one subject or for one group of students may be quite unsatisfactory for another. . . . It is difficult to secure reliable and valid data concerning the efficiency of a given teaching method or general pattern of instruction. First, teaching is a highly variable performance. There are wide limits within which a teacher may vary his activities and yet be reasonably successful. Second, teaching procedures not only vary greatly, but the factor of appropriateness further complicates analysis. . . . A third factor which makes comparative studies practically impossible is that different general patterns of instruction serve, in fact, different purposes (18, p. 98).

The methods used to educate students are somewhat determined by what one sees the role of the instructor to be. When the role of the instructor is to tell the student all he is to know, usually the lecture method will be used. If the instructor feels his main role is to shape attitudes, then the discussion method will be used. Also, the methods
will be determined by what the institution feels its role should be in educating the student. The role could be to offer the same program for every student regardless of individual differences, or, on the other extreme, to allow every student to choose whatever he desires. A third role could be that of prescription. The education of the medieval university would fit the first type, in that every student took the same program. This attitude has not yet been completely eradicated. The second method was the elective system by which some colleges, by the opening of the twentieth century, allowed students to choose nearly every subject. The prescriptive approach is the newest type, in which each student is evaluated and a program is then developed according to his weaknesses, strengths, and interests.

The elective system was used first in America at the University of Virginia between 1800 and 1925. The purpose behind the elective system as it was to develop over the next century was that of meeting individual needs. It was used on a very limited basis for such innovative courses as history and science. As with most innovations, there was not a rush of students to enroll or faculty members to support the new system. In fact, the majority of college professors opposed the elective system. Francis Rosecrance reported that "... the central educational battle of the nineteenth century was fought over the elective system..." (39, p. 39).
During the last half of the nineteenth century the most powerful proponent of the system was president Charles Eliot of Harvard University. During his forty years as president, the college curriculum went from a few electives to a total program of electives, with the exception of one English course (2, 39). Other colleges began to follow the lead of Harvard. The University of Michigan in the 1880's tried to gain extra student effort by allowing the upperclassmen to be exempted from some of the regular curriculum requirements. This freedom of choice did not generate enough enthusiasm to keep it from lapsing by the turn of the century (6). While some colleges in the early decades of the twentieth century adopted various modifications of the elective system, others fought vigorously against the program. Even as late as 1928 such colleges as Yale and Princeton strongly opposed the elective system, in favor of a single curriculum. A. Lawrence Lowell, who succeeded Eliot as president of Harvard in 1909 felt that too much freedom had been granted in the elective system and started a trend toward a more structured curriculum. Lowell's was not a return to the classical curriculum but a systematic approach toward a student-centered curriculum, meeting individual needs and getting the student more involved in his own learning. Lowell based his policies on the principle that a student must take enough courses in one area to lead toward a degree with distinction and must distribute the rest of this work so as not to leave any of
the major areas of learning completely untouched (27). Lowell, as did Eliot, made his contribution toward promoting new concepts in education. Lowell led the way for the "... overhaul of the elective system, installation of the general examination, establishment of the tutorial system, setting up the 'house' plan, arranging the reading period . . ." (34, p. 106).

Outstanding educators were not the only persons responsible for a movement toward planning the student-centered curriculum. Students who had returned from the German universities in the nineteenth and early twentieth centuries played an important role. Such men as George Bancroft, Henry W. Longfellow, and a host of others came back as

... devoted advocates of wide and deep scholarship, of independent research and of the need of such scholastic tools as libraries and laboratories. But especially did they give impetus to the movement in favor of freedom of choice ... in studies. Only by the adoption of such a principle could pronounced tastes or needs of the individual students be satisfied (25, p. 14).

The faculty of Princeton University, even though opposed to a liberal elective system, wanted to work more closely with the individual student. Therefore, a system of preceptors, the first in America, was developed. The preceptors were to work closely with a small group in supervising their reading and study. A similar type program, called the tutorial system, was being developed at Harvard, and was to give students guidance and fill the gaps between different
courses, give background information and a survey of the course. The role of the tutor was to lead the student to educate himself by a thorough study of his subjects (27).

Following World War I the trend toward making the student more responsible for his learning began to be popular. Swarthmore College offered an honors program to their 227 undergraduates, of whom eleven took part. The Swarthmore program was so effective and popular that by World War II, 146 of 331 undergraduates were involved. By 1927 there were 150 colleges that had developed some type of program that allowed the student to engage in independent and individualized learning (6).

The term "independent study" cannot be fixed as being a product of a certain decade but rather an outgrowth of the elective, the tutorial, and the honors programs of the late nineteenth and early twentieth centuries. However, the general use of the term became popular in the 1930's and 1940's. To define the term "independent study" is a difficult task. The term has been used to mean many different things to different persons. J. W. Cohen states that "independent study refers to study in which, with teachers' assistance, increasing responsibility and freedom are accorded the student to define and choose learning objectives, to select their own learning method, and to obtain competent evaluation of their achievements" (8, p. 104). W. R. Hatch, in pointing out the diverse meanings given to independent
study, writes:

For some, independent study is individual study; for others it is self-directed study; for still others, it is study done outside of organized courses and/or the usual academic setting. In some instances the term is reserved for work done off the campus . . . the essential element would seem to be the independence of the student learning (23, p. 1).

Samuel Baskin writes that the independent-study programs vary a great deal. Some programs consist of directed study, some study according to a contract, some programs allow very little class time for independent work, while some allow for complete non-attendance in class (1).

The rationale behind independent study as it developed from the 1920's through the 1960's was that the most important contribution a college could make was to develop in each student the capacity to continue his education after he gets his diploma. The role of the college becomes the training of students to educate themselves (23). The role of the instructor changes drastically from one who imparts knowledge to one who directs and stimulates learning and creates a climate conducive to the same. This does not eliminate the use of lectures or discussion groups, but is a system in which all types of instruction that can lead the student toward self-education are used (26). This role was well-defined by Baskin when he wrote:

The demands upon college teaching in the 1960's are very different from those of the 1860's or even the 1920's. The college professor can no longer be simply a drillmaster, forcing reluctant...
students to memorize their lessons, or merely a lecturer purveying this knowledge. Rather with the vast libraries, laboratories, teaching aids, and other resources readily at hand, the good professor today is becoming a senior partner working with the student in searching out resources for the solution of problems. In his new role, he serves not so much as a dispenser of information but rather as designer and manager of the students' learning (1, p. 196).

Also, new knowledge about how people learn has had much to do with promoting the movement toward independent study. The principle was accepted that no one can teach anything to anyone; it is only possible to arrange things so that one may learn (1).

In answering the question: "Why the move away from the well-established method of instruction in lecture and discussion groups of medium size for a certain amount of time in a conventional classroom?" Baskin gave three major reasons. One was the recognition of the waste and inefficiency of a system geared to a tiny homogeneous minority when America is trying to meet the challenge of equal educational opportunities for all; two, mounting evidence substantiated the feeling that the simple accumulation of facts and abstract principles was inadequate to produce an educated person; three, the growing conviction that the learning process is not a passive process but an active one (1).

Such colleges as Stephens, Sarah Lawrence, Bennington, and others moved in the new direction of fitting the curriculum to the student to better prepare the student for complex modern society (6). Others have introduced independent
study programs to handle enrollments (22). In others, it was felt that by giving the students free time to study on their own, professors were allowed more time for research and planning (10). Programs such as the ones developed by Johns Hopkins University and the University of Chicago were for the purpose of allowing students to move through a course of study as rapidly as their abilities would allow them (1). Chen in 1940 recommended that the student needed the stimulus and guidance of his instructors but he also needed a great deal of time to himself in order to accomplish the task of self-education (7).

A report of college curriculum trends in 1962 showed a strong emphasis on independent study. Five of the nine trends showed:

1. A move away from attending courses, giving grades and college credits;
2. A move toward inducing the student to become a self-starter and a self-disciplined person with the instructor as a guide;
3. A move toward associating some realities--such as field, vocational, laboratory or community work--with the academic program;
4. A move toward tailoring the program to fit the individual's needs, capacities and present interest; and
5. A move toward the use of seminars, honors, plans and conferences in the instructional program (20, p. 137).

The use of independent study, as stated earlier, is more or less a modern method, yet it has been used in some form since the Greeks. The Oxford and Cambridge tutorial system is one of the oldest types of organized independent study
which is still in use. Independent study was a part of the American system through the elective, honors and tutorial programs of the late nineteenth century. The Dalton plan of the 1920's, the Rollins plan which started in 1926, the Cornell University pathology program, and the Duke University anatomy course in 1935 all helped to pave the way for colleges such as Oberlin, Antioch, and others to adopt similar programs (17). In 1957 Bonthius reported that approximately one-fourth of the undergraduate colleges in the United States had an institution-wide requirement or voluntary program of independent study. In the 1930's and 1940's most of the programs were on a voluntary basis, but by the late fifties, as many as 13 percent of the colleges had a curriculum which required some independent work (3). Hatch published a report in 1960 based on a 1957 survey of 1086 colleges and universities. He reported that 286 institutions, 27 percent, had 334 programs based on independent study (23). Lucien White in 1962 reported a survey taken in the 1957-58 school year of 1367 institutions. He found that of 500 institutions which were already placing a large amount of responsibility on the students, 365 had either introduced the practice or had expanded it in some way during the year (47). Dell Felder in 1963 found that 68 percent of the 520 four-year institutions with enrollments over 200 used independent study in some form (15).
Paul Dressel in 1969 pointed out that from 1959 to 1969, at least one-half if not more of the American colleges and universities were providing programs of advanced placement, seminars, and independent study. In 1959 only about one-fourth of the colleges had such programs (12).

Until the late 1950's or early 1960's only a few colleges, such as Wooster or Sarah Lawrence, allowed all students to engage in independent-study programs. Baskin, in his report in 1957 on 256 institutions, reported that nearly all the programs dealt with honor students (1). F. J. Davis, in 1958, reported that nearly all students interviewed felt that only junior and senior-level students were sufficiently mature and able to do independent study (8). Following the report of the 1957 President's Committee on Higher Education, more educators began to see that independent study should not be limited just to honors courses and upper-class students (47, p. 23). Baskin reported in 1965 that "there is good evidence from programs already in effect that in some areas and for some purposes it not only is an acceptable substitute for conventional instruction for average and marginal students but also is actually more effectual" (1, p. 55). "Some institutions obviously do not trust students to use their time wisely when permitted freedom to choose. Others apparently feel that students will not learn to use their time wisely until they have freedom to choose. The latter view is becoming more prevalent: (12, p. 37).
In 1968 the move in many colleges was toward placing more emphasis on all students being in some type of independent-study program. In order to aid the increasing number of students, independent study is fast becoming a regular part of the instructor's schedule (1). Perhaps Franklin Patterson, the president of the innovative Hampshire College in Massachusetts, best described the independent-study movement when he wrote:

The academic program at Hampshire avoids either a system of forced spoonfeeding or a non-system in which the only direction given to studies is by what President Lowell (Harvard) described as natural interest. This course of action is likely to please neither those who feel education should follow a strictly prescribed set of lines and "cover everything important" within such lines, nor those who feel education is good only when its lines are wholly set by the student according to his "felt needs" and present interest (34, p. 106).

The Hampshire College program, a cooperative effort between Amherst, Smith, Mt. Holyoke, and the University of Massachusetts, is a complete move to independent study. The curriculum is so organized as to establish a pattern of individual behavior by intensive training from the beginning of the freshman year. The habit of self-motivation will be reinforced by situations which allow the individual to continue on an independent basis.

The popularity of independent study has not been due simply to the desire for a change or to get free of the classroom routine. Programs that have been well-planned and
successful have brought about the popularity. The success of independent study as a method, like the lecture and discussion methods, depends on several factors. When all of these factors are not controlled or identified, it is difficult to evaluate its potential properly. Robert Delk, in reporting on a study in teaching history by the independent method, found both advantages and disadvantages to the system. It stimulated interest and improved self-discipline in some. Under certain circumstances, the above-average students improved their skills in critical analysis and communications. The average student in some cases and to a certain extent receives these benefits. The ability level did not affect the progress made in mastery of subject matter. For the instructor, more time was needed to carry out the independent-study project. Also some of the rewards of teaching were sacrificed. The students slightly favored the independent-study methods, but the results showed that only the well-above-average could profit very much from the method (10). The Antioch program uses attitude, motivation, and other personality traits in addition to academic ability in predicting potential for success (8).

An experiment carried out by James Ford showed that, by the independent-study method, there would be no loss of subject matter knowledge, and there would be a gain in intangible outcomes. Delayed recall was better when the student had learned the material by independent study (17). A University
of Florida experiment also gave additional support to the method. They found that freshmen taking courses by independent study did as well in all cases and better in one-third of the cases than did other freshmen under conventional methods (22).

Baskin, in summarizing the research on studies involving independent study, wrote:

1. Students can learn as much by independent study as by regular methods of instruction.
2. Even though students express dissatisfaction at first, there is a growing satisfaction.
3. Research shows significant difference in learning retention from independent study over other regular methods.
4. There is no research to support the idea that independent study should be reserved for the highly intellectual only.
5. Freshmen can learn as well by independent study as upperclassmen can.
6. Independent study should not be looked upon as a method which eliminates the teacher from the teaching-learning process (2, pp. 66-67).

However, not all studies report that independent study is superior. While it is true that many studies, those already mentioned and others by such men as Parsons, Ketcham, and Beach, show it to be superior; there are others which show not so favorable results. Studies by Churchill, Baskin, Jensen, McCullough, and Van Alta show no significant difference, and studies by Wakely and Paul show an inferior program (22). Also, not all the reports are totally complimentary because there are problems, weaknesses and drawbacks. F. J. Davis reported that independent-studies programs tended toward an overspecialization at the undergraduate level; the
students were too dependent on their advisors; and too many valuable courses were eliminated (9). Procrastination on the part of the student and the lack of effective guidance on the part of the instructor were listed by Jack Ricard as major weaknesses (37). Patterson, in describing the Hampshire college curriculum, pointed to the need for controls on the program of independent study, stating:

... the general conclusion is ... that students work well independently only when a clear-cut academic situation has been created for them. If, when they are left alone, they find themselves merely in a social situation, the occasion may amount to little more than ineffectual faculty interference with their social life (34, p. 128).

When one attempts to use any one of the three methods discussed in the preceding pages, to the exclusion of other methods, he runs a risk of omitting techniques which could be advantageous for certain situations. Hatch and Bennet, in a special report, referred to this problem in regard to independent study, but in principle their remarks could apply equally well to the lecture or discussion method. They wrote:

... techniques designed to encourage independent learning that do not make use of the advantages implicit in good lecture presentations, their drama, and the contagious enthusiasm of the lecturer, do so at their peril.
... to make no provisions for student discussion not only deprives students of one of the essential satisfactions in learning, but apparently limits their learning. Good as independent study is in theory, it cannot in its practice afford to abandon the good with the bad, which is provided by lecture,
laboratory, or group discussion, without limiting the student's learning (23, p. 24).

Other writers have expressed the feeling that a multi-method approach was better than relying upon any one method. Instructors themselves, as shown by Umstattd, felt that a variety of methods should be employed (45). Howard E. Gruber in a report on trends in college programs stated that one of the moves was "toward the use of seminars, honors plans, and conferences in the instructional program" (20, p. 137). Therefore, it seems only reasonable that a study should be made to compare the results of a multi-method approach to the results of the use of a single method.

Directed study, an approach which makes use of lectures and discussion groups along with a type of independent study, is not to be confused with remedial work, homework, or work that is supplementary to the regular curriculum. The Clearwater, Florida conference on directed study in 1967 dealt with directed study but in a different context than in which it is used in this study. The Clearwater conference used the term "directed study" to mean work which was performed by an individual student on a voluntary or referral basis to help make up some academic weakness or to bring a skill up to a desired level. Merle H. Morgan, in a lecture at the conference, stated that directed study at the "... St. Petersburg Junior College was created for the primary purpose of providing individualized instruction for students
who have ability but who have weaknesses in their academic backgrounds" (32, pp. 58-60). This college also gave the directed studies department the responsibility of the advanced placement program, but had no students which qualified for the program. It was stated that until this new college grew and developed a wider curriculum it would attract very few students for the advanced placement program (32).

The writer found no studies which evaluated a multi-method approach in comparison to a single method. There were several studies and reports concerning each method as a single method, especially the lecture method in comparison to the discussion method. Also there were studies found which dealt with independent study in contrast to other methods. However, a study defined and described as directed study, as used in this study, was not found. This is all the more reason why this study was carried out.
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CHAPTER III

METHOD AND PROCEDURES

In this chapter a description of the subjects and instruction is given, along with an explanation of the program followed by the experimental and control groups.

Subjects

Subjects in the study were eighty-four college students, of whom forty-three were freshmen and forty-one were sophomores. They were enrolled in two independent liberal arts, church-related colleges located in two suburban communities of two standard metropolitan statistical areas. In college I, there were sixteen students in the experimental group and fifteen students in the control group. In college II, there were twenty-five students in the experimental group and twenty-eight students in the control group. Therefore, there were forty-one students in the experimental group and forty-three students in the control group. The two colleges were similar in philosophies and in the socio-economic status of the student bodies. The two colleges were under the auspices of boards of trustees that were made up of persons who are members of the same religious organization. The two colleges were very similar in that most of the students in each school came from urban and suburban areas. The
enrollment of college I was approximately 500 and the enrollment of college II was approximately 1500. The instructor involved in the experiment and the vice-president of academic affairs of college I have served on the faculty of college II.

The subjects were from a variety of cultural and educational backgrounds. In both colleges the classes were arbitrarily assigned as experimental, or control, by the department heads. On the first day of classes the program was explained to the students and they were given the opportunity to transfer if they desired to do so. If a student wanted to transfer, he had to do so in keeping with the school's policy on such matters. No student transferred because of a dislike for the objectives of the program. The basis on which the similarity of the two groups was decided was the raw scores on the Otis Quick-Scoring Mental Abilities Test, New Edition, Gamma Test. No subject was younger than seventeen years and eleven months, or older than twenty-two years and nine months at the beginning of the project.

Each student took the following tests at the beginning of the course:

1. The Crary American History Test,
2. Remmer's Test of Attitude Toward any School Subject,
3. California Study Methods Survey, and
4. Otis Quick-Scoring Mental Abilities Test, Gamma.

Forty-three students were in the control group, and forty-one students were in the experimental group. Fifty
control students started the study but seven had to be eliminated, five from college I and two from college II because they were not present to take the post-tests. Forty-six students in the experimental group started the study but five had to be eliminated, one from college I who was not present to take the post-test, and four from college II, two who were juniors and two who were seniors. The experimental group consisted of eighteen sophomores and twenty-three freshmen. The control group consisted of twenty-three sophomores and twenty freshmen.

Above-average, average, and below-average sub-groups, based on the highest to the lowest raw scores respectively on the Otis Quick-Scoring Mental Abilities Test, were selected in both the control and experimental groups.

Instructors

Instructor A in college I had one experimental class and one control class. This instructor was a male with seven years' experience teaching American history; he held a Master of Arts in history and was currently pursuing his Doctor of Philosophy in history.

Instructor B in college II had one experimental class. This instructor was a male with no experience teaching American history; he held a Master of Education degree in administration and was currently pursuing his Doctor of Education degree in education with a minor in history.
Instructor C in college II had one control class. The instructor was a male with six years' experience teaching American history and held a Doctor of Philosophy degree in history.

The instructors were chosen for their role as an instructor of an experimental class or control class based on their teaching schedule and other duties. The two instructors in the experimental group indicated available time and willingness to work with the experimental groups in the directed study program while instructor C, due to a heavy schedule, desired a control class.

The Control Group's Course

During the fall term of the 1968-69 school year, the control group was taught the first half of the American history survey course. The technique emphasized in the control group's course was the formal lecture method. The normal textbooks and the system's course of study were used. The objective was to cover, as thoroughly as possible, all the periods and events in the particular course on American history. It was a survey type approach, meaning that the class read the text, took notes in class, and took tests over the material covered in the course. There were no papers to write and no resource persons brought into the class. Also no suggested reading list was provided. Both colleges were on a trimester schedule, but their beginning and ending dates were different. In college I, the control class met four days
per week for fifty minutes per day for eleven weeks, starting the fourth week in September. The control class in college II met three days per week for fifty minutes per day for sixteen weeks, starting the first week in September. The total time spent in class was approximately the same.

The Experimental Group's Course

The emphasis in the experimental group was on directed learning. The students covered the same general material but also studied in depth, related topics in which they were personally interested, and which also served as a basis for the discussion group. Such discussion topics as the following were used:

1. What were the possibilities of a pre-Columbian discovery of America?
2. What effect did religion have on daily life in Massachusetts Bay under Puritan (Winthrop) influence?
3. What role did the "Minute-men" play in the winning of the Revolution?
4. Why did Jefferson organize a second political party?
5. Why was Clay unsuccessful in being elected president?
6. What caused the rise of the ante-bellum social reform movement?
7. What was Lincoln's plan for reconstruction?

Not only were the students to gain knowledge, but they were to develop methods and techniques for gaining the
knowledge. The instructor was to guide and counsel the students as they developed a mode of inquiry.

The course was taught in the following manner: approximately one-third of the time was used for instruction by the lecture method (entire class), approximately one-third of the time was spent for outside reading, and approximately one-third of the time was reserved for small discussion groups (one-half the class).

In college I, the class met on a four-day basis for fifty minutes per day for eleven weeks. The class in college II met three days per week for fifty minutes per day for sixteen weeks. The normal weekly schedule was as follows: The entire group met the first day for a general lecture. On the second day, one-half of the class was in outside reading, while the other one-half was in a small-group discussion type situation. On the third day the reverse of the second day was carried out. Then the process began again on the fourth class meeting with a general lecture. The class in college I deviated from the regular schedule occasionally to give small-group instruction on study skills. This time amounted to approximately four hours during the semester.

Both experimental and control group instructors were provided with a course outline so that both groups would study basically the same materials. The instructors in the experimental classes were provided with a suggested reading
list and suggested topics for outside reading and discussion. The instructor in college II provided his students with an outline of each chapter of the textbook which was covered in class. No effort was made to distribute the topics among the students. Students were allowed to choose the ones in which they were most interested. The main purpose of the lecture was to give general information and to raise questions on problems for the students to study independently and to discuss in groups. If a student in the experimental group desired to read, for credit, a book or article not on the suggested list, instructor approval had to be obtained. Each of the students in the experimental group had at least one individual conference, twelve students had two such conferences with their instructor during the semester.

Course Outline

In both control and experimental groups, the units of study included the American Nation from the Age of Discovery to the Civil War. The units and the approximate time given to each are shown in Table I.

The basic text for the course in college I was The Federal Union, by John D. Hicks, George E. Mowry, and Robert E. Burke. In college II the basic text was the National Experience, by John M. Blum, Bruce Catton, Edmund S. Morgan, Arthur M. Schlesinger, Jr., Kenneth M. Stampp, and C. Vann Woodward. Three short biographies, The Puritan Dilemma:
TABLE I

UNITs OF STUDY AND APPROXIMATE TIME GIVEN TO EACH UNIT

<table>
<thead>
<tr>
<th>College I</th>
<th>College II</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 weeks</td>
<td>3 weeks</td>
<td>The Morning of America</td>
<td>1450-1754</td>
</tr>
<tr>
<td>(8 hrs.)</td>
<td>(9 hrs.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 weeks</td>
<td>3 weeks</td>
<td>Founding the Nation</td>
<td>1754-1789</td>
</tr>
<tr>
<td>(8 hrs.)</td>
<td>(9 hrs.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 weeks</td>
<td>3 weeks</td>
<td>Nationalism and Democracy</td>
<td>1789-1823</td>
</tr>
<tr>
<td>(8 hrs.)</td>
<td>(9 hrs.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 weeks</td>
<td>3 weeks</td>
<td>The Jacksonian Era</td>
<td>1815-1843</td>
</tr>
<tr>
<td>(8 hrs.)</td>
<td>(9 hrs.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 week</td>
<td>2 weeks</td>
<td>Cultural and Geographic Expansion</td>
<td>1830-1850</td>
</tr>
<tr>
<td>(4 hrs.)</td>
<td>(6 hrs.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 weeks</td>
<td>2 weeks</td>
<td>The Sectional Controversy</td>
<td>1850-1865</td>
</tr>
<tr>
<td>(8 hrs.)</td>
<td>(6 hrs.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Story of John Winthrop, by Edmund S. Morgan, Benjamin Franklin and a Rising People, by Verner W. Crane, and Henry Clay and the Art of Politics, by Clement Eton, were used in college II as supplementary texts.

Classroom Evaluation

The instructors in both groups gave three combination objective-essay tests for evaluation during the term. In the control group these tests were the only items considered in assigning grades for the students.

The final grade for a student was determined by averaging the three test scores together. In the experimental group, the tests were not the only factor in determining final
grades. The two regular tests carried one-fifth value each and the final exam carried a value of two-fifths of a sub-final grade. Grades from note cards on outside reading carried a value of one-fifth of the sub-final grade. Added to the sub-final grade for a final grade, was a score ranging from zero to ten depending upon the student's contribution in class discussion. The score was a subjective evaluation on the part of the instructor.

In order to gain information in regard to the satisfaction with the value placed on directed study by the experimental group, a five-statement questionnaire was administered at the end of the trimester (see Appendix A).

Data Collection

The Measures

Pretesting took place during the first week in September for college II and in the fourth week in September for college I. Post-testing for college I was done in the first week in December and in the second week of December for college II. The pretesting was administered during the first three class meetings, while the post-testing was administered in two class periods. In college I the testing was done on consecutive days, and in college II it was done on alternate days.

The instructor or instructor's assistants administered all the tests. Class periods were fifty minutes in length, and no instrument used required more time than this for administration.
Alternate forms of the following measures were administered to subjects before and after the experimental treatment.

1. The Crary American History Test.--This was the 1965 revised edition of the 1950-1952 editions which blend the elements of the latter that are still appropriate with those elements which reflect changes that have occurred in the last decade. Of the seventy-six items in each form, only thirty-five appeared in the 1950-1952 editions (3). Attention is given to the circumstances and events that have led to the creation and modification of American governmental institutions and concepts, and the roles of social institutions which characterize the American way of life. Its content objectives include the knowledge and understanding of the following: politico-national problems, socio-economic conditions, cultural-scientific developments, foreign relations, and study skills. The item tryout and standardization was carried out in the spring of 1964 when it was administered to 9,523 students in twenty-four schools from a cross section of the nation. The correlations of the long experimental forms with the seventy-six items forms were found to approximate .98 for each form. When the test was shortened and corrected, split-half reliability coefficients of .90 and .88 were found in one school, .88 and .90 in a second, .92 in a third, and .91 in a fourth (3, p. 17).
2. Remmer's Test of Attitude Toward any School Subject.—This test has the unique advantage of being able to measure, on a single scale, any one of a large number of attitudes with a high degree of reliability. It is also brief—seven questions—and "convenient and with obvious face and content validity for many purposes in the applicability to measurement and evaluation of attitudes" (4, p. 3). The reliabilities of the original length scales for different population samples range from .71 to .92 (4).

3. California Study Methods Survey.—This test is composed of 150 "yes" and "no" questions about study methods and attitudes which discriminate between high and low achievement students. It provides five scores, attitude toward school, mechanics of study, planning and system, total, and verification. The California Study Methods Survey was validated essentially by correlating its items and subscales with academic success (2, p. 1141). It shows a consistent positive correlation ranging from .32 to .58 against grade-point averages and from .11 to .46 against achievement test scores. The reported reliabilities are .87 for the total score.

It is a simple and useful test for calling attention to study methods which pupils might profitably try. Its predictor of grade-point average is questionable and its verification scale needs to be regarded lightly. The scale was developed over a ten-year period after being administered to
thousands of students. Extreme care has been taken in con-
struction for clarity, precision, and inclusiveness of the
manual.

4. Otis Quick-Scoring Mental Abilities Test, New
Edition.—The Gamma form of this test was used. The eighty
items give consideration to word meaning, verbal analogies,
scrambled sentences, interpretation of proverbs, logical
reasoning, number series, arithmetic reasoning, and design
analogies. The reliability coefficient for the Gamma test
is .88 and the standard error is three points (1).

**Procedures for Analysis of Data**

The means were computed from ungrouped gross scores.
The standard deviation was computed by a formula for origin
at zero and measures in score units. The best estimate of
the standard error of the difference between the means was
found and the Fisher's $t$ value was computed by dividing the
difference between the means by the best estimate of the
standard error of the difference between the mean. The
formula is as follows (5, p. 127):

$$t = \frac{M_1 - M_2}{\sqrt{\frac{N_1 S_1^2 + N_2 S_2^2}{N_1 + N_2 - 2} \left(\frac{1}{N_1} + \frac{1}{N_2}\right)}}$$

The null hypothesis that there would be no difference
between the means was set up and in all instances the 5 per-
cent level of significance was required to reject the null
hypothesis.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

In this chapter the results of the study are organized into two major sections: (1) pretest characteristics of subjects and (2) testing of the null hypotheses.

The primary purpose of each section of the analysis is to compare the gains in achievement in American history of college students in a directed study course with the gains in achievement of college students in a traditional lecture course. The statistical results in this chapter are presented in tabular form with the .05 level of probability indicated. The research hypotheses are restated in the null form for statistical analysis.

Pretest Characteristics of Subjects

The *Otis Quick-Scoring Mental Abilities Test* was administered at the outset of the experiment to students in both the experimental and control groups to determine the similarity of intelligence of the two groups. The mean raw score for the control group was 50.7 and for the experimental group it was 52.7. The standard deviations were comparable, and the differences in mean raw scores between the two groups were not significant at the .05 level of confidence.
Within the experimental and control groups, students with varying abilities were taught together, but the raw scores of the subjects were subgrouped for the purpose of ascertaining the effects of the two methods on students of varying academic abilities. The subgrouping was based on the raw scores made on the Otis Quick-Scoring Mental Abilities Test. Placed in the above-average groups were students with the highest scores (56-74); the students with the second highest group of scores (48-55) were placed in the average group; and the students with the lowest group of scores (20-47) were placed in the below-average group. The breaking points for the different subgroups were set at locations which would keep the three groups closely balanced both in number of subjects and range of scores included in each subgroup. The data for this information are contained in Table II.

**Total Control and Total Experimental Groups**

The total control group indicated a mean score of 50.65 with a standard deviation of 10.58. The total experimental group indicated a mean score of 52.70, with a standard deviation of 10.85. The t ratio between total group means was .9, which was not significant at the .05 level of confidence. The students in the experimental group made a greater gain than did the students in the control group. In order for the mean difference to have been significant at the .05 level
TABLE II

SUMMARY STATISTICS SHOWING STUDENTS' PERFORMANCE ON THE OTIS QUICK-SCORING MENTAL ABILITIES TEST

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Fisher's t</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>43</td>
<td>50.65</td>
<td>10.58</td>
<td>.9</td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>41</td>
<td>52.70</td>
<td>10.85</td>
<td>N.S.</td>
<td></td>
</tr>
<tr>
<td>Control Above-Average</td>
<td>12</td>
<td>63.16</td>
<td>4.62</td>
<td>.1</td>
<td>N.S.</td>
</tr>
<tr>
<td>Experimental Above-Average</td>
<td>15</td>
<td>63.40</td>
<td>5.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Average</td>
<td>16</td>
<td>51.25</td>
<td>2.38</td>
<td>.7</td>
<td></td>
</tr>
<tr>
<td>Experimental Average</td>
<td>13</td>
<td>51.84</td>
<td>2.44</td>
<td>N.S.</td>
<td></td>
</tr>
<tr>
<td>Control Below-Average</td>
<td>15</td>
<td>40.00</td>
<td>7.55</td>
<td>.4</td>
<td>N.S.</td>
</tr>
<tr>
<td>Experimental Below-Average</td>
<td>13</td>
<td>41.23</td>
<td>7.69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

of confidence, a t value of 2.00 would have been necessary. Thus it was ascertained that the two total groups were not significantly different in intellectual potential as measured by the Otis Quick-Scoring Mental Abilities Test at the beginning of the study. Even though it was not significant at the .05 level of confidence, the students in the experimental group were slightly more intelligent.

**Control Above-Average and Experimental Above-Average Groups**

The above-average control group indicated a mean score of 63.16, with a standard deviation of 4.62. The above-average experimental group indicated a mean score of 63.40, with a standard deviation of 5.91. The t ratio between
above-average group means was .1, which was not significant at the .05 level of confidence. In order for the mean difference to have been significant at the .05 level of confidence, a $t$ value of 2.06 would have been necessary. Even though the experimental group was slightly more intelligent, it was ascertained that the two above-average groups were not significantly different in intellectual potential at the beginning of the study. The difference in the two standard deviation scores was greater for this group than any of the others, indicating a greater variability in the scores of the above-average students than among the other groups.

**Control Average and Experimental Average Groups**

The average control group recorded a mean score of 51.25, with a standard deviation of 2.38. The average experimental group recorded a mean score of 51.84, with a standard deviation of 2.44. The $t$ ratio between total group means was .7, which was not significant at the .05 level of confidence. A $t$ value of 2.05 would have been necessary for the mean difference to have been significant at the .05 level of confidence. Thus it was ascertained that the two average groups were not significantly different in intellectual potential at the beginning of the experiment.
**Control Below-Average and Experimental Below-Average**

The below-average group indicated a mean score of 40.00, with a standard deviation of 7.55. The below-average experimental group indicated a mean score of 41.23, with a standard deviation of 7.69. The \( t \) ratio between total group means was .4, which was not significant at the .05 level of confidence. In order for the mean difference to have been significant at the .05 level of confidence, a \( t \) value of 2.05 would have been necessary. Therefore, it was ascertained that the two below-average groups were not significantly different in intellectual potential at the beginning of the experiment.

Three tests were administered at the beginning and end of the study to both the experimental and control groups to determine the significance of the difference made by either group in the mean gains. The three variables used were the Crary American History Test, the California Study Methods Survey, and the Remmer's Test of Attitude Toward any School Subject. The mean, standard deviation, and \( t \) values of the total groups and subgroups on the three tests named above were calculated to determine the similarity of the groups at the beginning of the study. The results of the pretests have been summarized in Table III.
TABLE III

MEAN RAW SCORES, STANDARD DEVIATIONS, AND t VALUES FOR EXPERIMENTAL AND CONTROL GROUPS ON PRETESTS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental N = 41</th>
<th>Control N = 43</th>
<th>Fisher's t</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crary American History Test</td>
<td>Mean 38.12, S.D. 10.01</td>
<td>Mean 40.84, S.D. 11.43</td>
<td>t -1.2, L.S. N.S.</td>
<td></td>
</tr>
<tr>
<td>California Study Methods Survey</td>
<td>Mean 90.88, S.D. 13.48</td>
<td>Mean 90.37, S.D. 15.85</td>
<td>t .2, L.S. N.S.</td>
<td></td>
</tr>
<tr>
<td>Remmer's Test of Attitude Toward any School Subject</td>
<td>Mean 7.81, S.D. 1.03</td>
<td>Mean 7.91, S.D. .78</td>
<td>t - .5, L.S. N.S.</td>
<td></td>
</tr>
</tbody>
</table>

Crary American History Test

On a test consisting of ninety questions, the total control group indicated a mean score of 40.84, with a standard deviation of 11.43. The total experimental group indicated a mean score of 38.12 and a standard deviation of 10.01. The t ratio between the two total groups was -1.2, which was not significant at the .05 level of confidence. In order for the mean difference to have been significant at the .05 level of confidence, a t value of 2.00 would have been necessary. Even though the control group scored nearly three points higher than the experimental group, it was ascertained that the two total groups were not significantly disparate in knowledge of American history at the beginning of the study.
California Study Methods Survey

Out of a possible raw score of 150, the total control group indicated a mean score of 90.37, with a standard deviation of 15.85. The total experimental groups indicated a mean score of 90.88 and a standard deviation of 13.48. The t ratio between the two total groups was .2, which was not significant at the .05 level of confidence. It was therefore found that the two total groups were not significantly disparate in their study methods at the beginning of the study.

Remmer's Test of Attitude Toward any School Subject

With the highest possible score being 10.3, the total control group indicated a mean score of 7.91, with a standard deviation of .78. The total experimental group indicated a mean score of 7.8 and a standard deviation of 1.03. The t ratio between the two groups was -.5, which was not significant at the .05 level of confidence. Therefore, it was ascertained that the two total groups were not significantly disparate in their attitude toward the study of American history at the beginning of the study.

In order to ascertain the similarity of the subgroups on the knowledge of American history, study methods and abilities, and attitudes toward American history, the means, standard deviations and t values of each subgroup were calculated. Tables IV, V, and VI contain this information.
Table IV contains the summary of the mean, standard deviation, and t values for the above-average subgroups.

**TABLE IV**

**MEAN RAW SCORES, STANDARD DEVIATIONS, AND t VALUES FOR EXPERIMENTAL AND CONTROL ABOVE-AVERAGE SUBGROUPS ON PRETESTS**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental N = 15</th>
<th>Control N = 12</th>
<th>Fisher's t</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crary American History Test</td>
<td>Mean 43.66, S.D. 8.55</td>
<td>Mean 47.50, S.D. 8.64</td>
<td>1.2</td>
<td>N.S.</td>
</tr>
<tr>
<td>California Study Methods Survey</td>
<td>Mean 100.13, S.D. 14.33</td>
<td>Mean 96.58, S.D. 15.29</td>
<td>.6</td>
<td>N.S.</td>
</tr>
<tr>
<td>Remmer's Test of Attitude Toward any School Subject</td>
<td>Mean 7.87, S.D. 1.11</td>
<td>Mean 7.48, S.D. .94</td>
<td>1.0</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

**Crary American History Test**

The above-average control group indicated a mean score of 47.50, with a standard deviation of 8.64. This was nearly seven points above the mean score for the total control group. The above-average experimental group indicated a mean score of 43.66, with a standard deviation of 8.55. The mean for the above-average experimental group was only five and one-half points higher than the mean for the entire experimental group. The t ratio between the two above-average subgroups was 1.2, which was not significant at the .05 level of confidence. In order for the mean difference to have been
significant at the .05 level of confidence, a $t$ value of 2.06 would have been necessary. Even though the experimental group showed a little more knowledge of American history, it was ascertained that the two above-average subgroups were not significantly different in knowledge of American history at the beginning of the study.

**California Study Methods Survey**

The above-average control group indicated a mean score of 96.58, with a standard deviation of 15.29. The total control group had a mean of 90.37, so there was evidently a small spread in the raw scores. The above-average experimental group indicated a mean score of 100.13, with a standard deviation of 14.33. The total experimental group had a mean of 90.88, which is nearly ten points lower than the score made by the above-average group, which indicates a greater spread among the scores for the students in the above-average experimental group than among the students in the above-average control group. The $t$ ratio between the above-average subgroups was .6, which was not significant at the .05 level of confidence. Therefore, it was found that the two above-average subgroups were not significantly different in their study methods abilities at the beginning of the study.

**Remmer's Test of Attitude Toward any School Subject**

The above-average control group indicated a mean score of 7.48, with a standard deviation of .94. The total control
The mean, standard deviation, and the t value for the average experimental and average control subgroups have been summarized in Table V.

Crary American History Test

The average control group recorded a mean score of 43.31, with a standard deviation of 12.44. The average experimental group recorded a mean score of 37.07, with a standard deviation of 8.59. The t ratio between the two
TABLE V

MEAN RAW SCORES, STANDARD DEVIATIONS, AND FISHER'S $t$ VALUES FOR EXPERIMENTAL AND CONTROL AVERAGE SUBGROUPS ON PRETESTS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental $N = 13$</th>
<th>Control $N = 16$</th>
<th>Fisher's $t$</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crary American History Test</td>
<td>37.07 8.59</td>
<td>43.31 12.44</td>
<td>-1.5</td>
<td>N.S.</td>
</tr>
<tr>
<td>California Study Methods Survey</td>
<td>83.15 9.35</td>
<td>92.68 14.78</td>
<td>-2.0</td>
<td>N.S.</td>
</tr>
<tr>
<td>Remmer's Test of Attitude Toward any School Subject</td>
<td>7.58 1.14</td>
<td>8.11 .62</td>
<td>-1.6</td>
<td>N.S.</td>
</tr>
</tbody>
</table>

average subgroups was -1.5, which was not significant at the .05 level of confidence. A $t$ value of 2.05 would have been necessary for the mean difference to have been significant at the .05 level of confidence. The standard deviations were less alike than either the total groups or the above-average groups, indicating a greater variability among the distributions, especially in the control group. Thus it was ascertained that the two average subgroups were not significantly disparate in knowledge of American history at the beginning of the study.

California Study Methods Survey

The average control subgroup indicated a mean score of 92.68 and a standard deviation of 14.78. The average experimental subgroup indicated a mean score of 83.15 and a
standard deviation of 9.35. The $t$ ratio between the two average subgroups was -2.0, which was approaching significance at the .05 level of confidence. In order for the mean difference to have been significant at the .05 level of confidence, a $t$ value of 2.05 would have been necessary. It was therefore ascertained that the average control subgroup was not significantly different in study methods from the experimental group at the beginning of the study.

Remmer's Test of Attitude Toward any School Subject

The average control group indicated a mean score of 8.11, with a standard deviation of .62. This control group had a better attitude than did the above-average and total control groups. The average experimental group indicated a mean score of 7.58, with a standard deviation of 1.14. The experimental group did not have as positive an attitude as did the control group. The $t$ ratio between the two average subgroups was -1.6, which was not significant at the .05 level. It was, therefore, ascertained that the attitudes of the two average subgroups toward the study of American history were not significantly different at the beginning of the study.

The means, standard deviations, and the $t$ values for the below-average experimental and below-average subgroups have been summarized in Table VI.
TABLE VI
MEAN RAW SCORES, STANDARD DEVIATIONS, AND FISHER’S t VALUES
FOR EXPERIMENTAL AND CONTROL BELOW-AVERAGE SUBGROUPS
ON PRETESTS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental N = 13</th>
<th>Control N = 15</th>
<th>Fisher's t</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crary American History Test</td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td></td>
<td>32.76</td>
<td>10.19</td>
<td>32.86</td>
<td>7.38</td>
</tr>
<tr>
<td>California Study Methods Survey</td>
<td>87.92</td>
<td>9.87</td>
<td>82.93</td>
<td>15.39</td>
</tr>
<tr>
<td>Remmer's Test of Attitude Toward any School Subject</td>
<td>7.96</td>
<td>.85</td>
<td>8.05</td>
<td>.71</td>
</tr>
</tbody>
</table>

Crary American History Test

The below-average control group indicated a mean score of 32.86 and a standard deviation of 7.38. The below-average experimental group indicated a mean score of 32.76 and a standard deviation of 10.19. The raw scores were so close that the t ratio between the two below-average groups was -0.0, which was not significant at the .05 level of confidence. In order for the mean difference to have been significant at the .05 level of confidence, a t value of 2.06 would have been necessary. It was therefore ascertained that the two below-average subgroups were not significantly different in knowledge of American History at the beginning of the study.
California Study Methods Survey

The below-average control group indicated a mean score of 82.93 and a standard deviation of 15.39. The below-average experimental group indicated a mean score of 87.92 and a standard deviation of 9.87. The below-average experimental group showed a higher score than did the average experimental group, indicating that the below-average group had better study methods than the average group. The standard deviation was much larger for the control than for the experimental group, indicating a wide range of scores for the control group. The t ratio between the two below-average groups was 1.0, which was not significant at the .05 level of confidence. Thus it was ascertained that the two below-average subgroups were not significantly disparate in their study methods abilities.

Remmer’s Test of Attitude Toward any School Subject

The below-average control group indicated a mean score of 8.05 and a standard deviation of .71. The below-average experimental group indicated a mean score of 7.96 and a standard deviation of .85. Both below-average groups scored higher than did the total group, the above-average, or average groups on attitude toward the study of American history. The t ratio between the two below-average groups was -.3, which was not significant at the .05 level of confidence. Even though the control group had a higher mean
score, it was not significantly higher and the below-average subgroups were not significantly different in their attitudes toward the study of American history at the beginning of the study.

**The First Hypothesis**

The first hypothesis was restated as follows: There will be no significant difference in the mean gain made by the experimental group and the mean gain made by the control group on the Crary American History Test. The mean gains, standard deviations and $t$ value are presented in Table VII.

**TABLE VII**

Mean Gains, Standard Deviations, and Fisher's $t$ Value for Experimental and Control Groups on the Crary American History Test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Gain</th>
<th>Standard Deviation</th>
<th>Fisher's $t$</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>41</td>
<td>6.41</td>
<td>7.71</td>
<td>1.3</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control</td>
<td>43</td>
<td>4.44</td>
<td>6.70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From a test with seventy-six questions, the total control group indicated a mean gain score of 4.44, with a standard deviation of 6.70. The total experimental group indicated a mean score of 6.41, with a standard deviation of 7.71. The $t$ ratio between the two groups was 1.3, which was not significant at the .05 level of confidence. In order for the difference in mean gains to have been significant at
the .05 level of confidence, a $t$ value of 2.00 would have been necessary. The null hypothesis of no difference could not be rejected; therefore, the research hypothesis was rejected. Even though the mean gain made by the experimental group was 6.41, as opposed to the mean gain of 4.44 of the control group, it was not enough to be significant at the .05 level of confidence. The standard deviations for both groups were somewhat high. This was due to a few extreme scores. The experimental group had a range in raw score mean gains of 32 points and the control group had a range of 27 points. This explained the high standard deviation of 7.71 for the experimental group and 6.70 for the control group.

**The Second Hypothesis**

The second hypothesis was restated as follows: There will be no significant difference in the mean gain made by the above-average experimental group and the mean gain made by the above-average control group on the Crary American History Test. The mean gains, standard deviations, and $t$ value are presented in Table VIII.

The above-average experimental group indicated a mean gain of 7.33, with a standard deviation of 7.89. The above-average control group indicated a mean gain of 5.92, with a standard deviation of 6.99. An analysis of the group mean gains indicated that the greatest mean gain was made by the
TABLE VIII

MEAN GAINS, STANDARD DEVIATIONS, AND FISHER'S t VALUE FOR THE EXPERIMENTAL AND CONTROL ABOVE-AVERAGE GROUPS ON THE CRARY AMERICAN HISTORY TEST

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Gain</th>
<th>Standard Deviation</th>
<th>Fisher's t</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above-Average Experimental</td>
<td>15</td>
<td>7.33</td>
<td>7.89</td>
<td>.5</td>
<td>N.S.</td>
</tr>
<tr>
<td>Above-Average Control</td>
<td>12</td>
<td>5.92</td>
<td>6.99</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

experimental group. The t ratio between the means of the two groups was .5, which was not significant at the .05 level of confidence. In order for the difference in mean gains to have been significant at the .05 level of confidence, a t value of 2.06 would have been necessary. The null hypothesis of no difference could not be rejected; therefore, the research hypothesis was rejected.

The rather high standard deviation scores were due to a few extreme mean gain raw scores. The above-average control group had a range in mean gain raw scores of 25 points and the above-average experimental group had a range of 30 points. This explained the high standard deviation of 7.89 for the above-average experimental group and the 6.99 for the above-average control group.

The Third Hypothesis

The third hypothesis was restated as follows: there will be no significant difference in the mean gain made by
the average experimental group and the mean gain made by the average control group. The mean gains, standard deviations, and the t value are presented in Table IX.

**TABLE IX**

**MEAN GAINS, STANDARD DEVIATIONS, AND FISHER'S t VALUE FOR THE EXPERIMENTAL AND CONTROL AVERAGE GROUPS ON THE CRAIN AMERICAN HISTORY TEST**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Gain</th>
<th>Standard Deviation</th>
<th>Fisher's t</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Average</td>
<td>13</td>
<td>4.61</td>
<td>9.30</td>
<td>.3</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control Average</td>
<td>16</td>
<td>3.68</td>
<td>7.19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The average experimental group indicated a mean gain of 4.61, with a standard deviation of 9.30. The average control group indicated a mean gain of 3.68, with a standard deviation of 7.19. An analysis of the mean gains indicated that the greatest mean gain was made by the experimental group. The t ratio between the means of the group was .3, which was not significant at the .05 level of confidence. In order for the difference in mean gains to have been significant at the .05 level of confidence, a t value of 2.05 would have been necessary. Since the t value of 2.05 was not met, the null hypothesis of no difference could not be rejected; therefore, the research hypothesis was rejected.

Several extreme mean gain raw scores caused the high standard deviations. Each group had a range of 30 points,
explaining the standard deviation of 9.30 for the average experimental group and 7.19 for the average control group.

The Fourth Hypothesis

The fourth hypothesis was restated as follows: there will be no significant difference in the mean gain made by the below-average experimental group and the mean gain made by the below-average control group. The means, standard deviations, and \( t \) value are presented in Table X.

**TABLE X**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Gain</th>
<th>Standard Deviation</th>
<th>Fisher's ( t )</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Below-Average</td>
<td>13</td>
<td>7.15</td>
<td>5.80</td>
<td>1.4</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control Below-Average</td>
<td>15</td>
<td>4.06</td>
<td>6.18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The below-average experimental group indicated a mean gain of 7.15, with a standard deviation of 5.80. The below-average control group indicated a mean gain of 4.06, with a standard deviation of 6.18. The \( t \) ratio between the two groups was 1.4, which was not significant at the .05 level of confidence. An analysis of the mean gains indicated that the difference in the mean gains, in favor of the experimental group, was so great that it approached the level of significance. In order for the difference in mean
gains to be significant at the .05 level of confidence, a t value of 2.056 would have been necessary. Since the null hypothesis of no difference could not be rejected, the research hypothesis was rejected.

The standard deviation of 5.80 for the below-average experimental group was due to a range of mean gain raw scores of 22 points. The standard deviation of 6.18 for the below-average control group was due to a range of mean gain raw scores of 20 points.

It was seen that although there was not a statistically significant difference, it was evident that the experimental groups for all three divisions of above-average, average, and below-average indicated greater mean gains between pre- and post-testing than did the control groups.

An analysis of group differences between pre- and post-testing showed that the above-average groups had the highest scores on the pretest and posttest, the average group had the second highest pretest and posttest scores, and the below-average group had the lowest pretest and posttest scores. Also it was indicated that the above-average group showed a greater mean gain than either the average or below-average groups. The below-average group indicated the second highest mean gain, while the average group indicated the least overall mean gain between pre- and posttesting.
The Fifth Hypothesis

The fifth hypothesis was restated as follows: there will be no significant difference in the mean gain made by the experimental group and the mean gain made by the control group on the California Study Methods Survey. The mean gains, standard deviations, and t value are presented in Table XI.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Gain</th>
<th>Standard Deviation</th>
<th>Fisher's t</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>41</td>
<td>1.05</td>
<td>12.42</td>
<td>-.2</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control</td>
<td>43</td>
<td>1.51</td>
<td>10.46</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The total control group indicated a mean gain score of 1.51, with a standard deviation of 10.46. The total experimental group indicated a mean gain score of 1.05, with a standard deviation of 12.42. The t ratio between the two groups was -.2, which was not significant at the .05 level of confidence. In order for the difference in mean gains to be significant at the .05 level of confidence, a t value of 2.00 would have been necessary. Since the level of 2.00 was not reached, the null hypothesis of no difference could not be rejected; therefore, the research hypothesis was rejected. In fact the mean gain by the control group was greater than the mean gain made by the experimental group.
The high standard deviation scores are due to extreme scores in both groups. The experimental group had a range of 59 points in raw score and the control group had a range of 56 points.

**The Sixth Hypothesis**

The sixth hypothesis was restated as follows: there will be no significant difference in the mean gain made by the above-average experimental group and the mean gain of the above-average control group on the California Study Methods Survey. The mean gains, standard deviations, and t value are presented in Table XII.

**TABLE XII**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Gain</th>
<th>Standard Deviation</th>
<th>Fisher's t</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Above-Average</td>
<td>15</td>
<td>-2.47</td>
<td>11.66</td>
<td>-.1</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control Above-Average</td>
<td>12</td>
<td>-2.17</td>
<td>9.08</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above-average experimental group indicated a mean loss of -2.47, with a standard deviation of 11.66. The above-average control group indicated a mean loss of -2.17, with a standard deviation of 9.08. The t ratio between the two groups was -.1, which was not significant at the .05 level of confidence. In order for the difference in mean gains to be
significant at the .05 level of confidence, a $t$ value of 2.06 would have been necessary. This number was not reached. Since the null hypothesis of no difference could not be rejected, the research hypothesis was rejected.

An analysis of the mean gains indicated that neither group made a positive gain, but the experimental group had the largest mean loss. The mean gain scores for the individuals in each group were so varied that they resulted in large standard deviation scores. The range of mean gain raw scores for the experimental group was 43 points and for the control group the range was 32 points.

**TABLE XIII**

**MEAN GAINS, STANDARD DEVIATIONS, AND FISHER'S $t$ VALUE FOR EXPERIMENTAL AND CONTROL AVERAGE GROUPS ON THE CALIFORNIA STUDY METHODS SURVEY**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean Gain</th>
<th>Standard Deviation</th>
<th>Fisher's $t$</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Average</td>
<td>13</td>
<td>4.84</td>
<td>14.15</td>
<td>.2</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control Average</td>
<td>16</td>
<td>4.18</td>
<td>9.20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The average control group indicated a mean gain of 4.18, with a standard deviation of 9.20. The average experimental group indicated a mean gain of 4.84, with a standard deviation of 14.15. The $t$ ratio between the two groups was .2, which was not significant at the .05 level of confidence. An analysis of the mean gains indicated that there is little difference in the mean gains made by the two groups.
In order for the difference in mean gains to have been significant at the .05 level of confidence, a $t$ value of 2.05 would have been necessary. Since the null hypothesis of no difference could not be rejected, the research hypothesis was rejected. The standard deviation scores are high due to a range of 45 points of raw mean gain in the experimental group and a range of 37 points in the control group.

The Eighth Hypothesis

The eighth hypothesis was restated as follows: there will be no significant difference in the mean gain made by the below-average experimental group and the mean gain made by the below-average control group. The mean gains, standard deviations, and $t$ value are presented in Table XIV.

**TABLE XIV**

<table>
<thead>
<tr>
<th>GROUP</th>
<th>N</th>
<th>MEAN GAIN</th>
<th>STANDARD DEVIATION</th>
<th>FISHER'S $t$</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Below-Average</td>
<td>13</td>
<td>1.30</td>
<td>11.14</td>
<td>-.1</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control Below-Average</td>
<td>15</td>
<td>1.60</td>
<td>12.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The below-average control group indicated a mean gain of 1.60, with a standard deviation of 12.36. The below-average experimental group indicated a mean gain of 1.30, with a standard deviation of 11.14. An analysis of mean gains
indicated that the control group made a greater mean gain than the experimental group. The $t$ ratio between the two groups was 0.1, which was not significant at the .05 level of confidence. In order for the difference in mean gains to have been significant at the .05 level of confidence, a $t$ ratio of 2.05 would have been necessary. The null hypothesis of no difference could not be rejected; therefore, the research hypothesis was rejected. The standard deviations were high due to several extreme scores. The range of mean gain raw scores for the below-average experimental group was 43 points and for the above-average control group it was 47 points.

It was seen in the analysis of the data that neither the control group nor experimental group showed consistent results. Only in the average groups did the experimental group show a greater mean gain than did the control group. It was found that by both methods, the above-average groups lost points, with the experimental group losing the most. Both below-average groups made mean gains, but not very large ones, with the control group making the largest gain.

An analysis of group differences between pre- and post-testing showed that even though the above-average group had the highest pretest scores, the average control group had a larger posttest score than did the above-average control group. The posttest score for the above-average experimental group was larger than any posttest score for any other group. The
below-average experimental group had higher pre- and post-test scores than did the average experimental group, but the below-average group made the smallest mean gain. The average groups indicated the highest mean gains, with the below-average group second highest and the above-average groups last, with an actual loss.

The Ninth Hypothesis

The ninth hypothesis was restated as follows: there will be no significant difference in the mean gain made by the experimental group and the mean gain made by the control group on the Remmer's Test of Attitude Toward any School Subject. The mean gains, standard deviations, and \( t \) values are presented in Table XV.

**TABLE XV**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Gain</th>
<th>Standard Deviation</th>
<th>Fisher's ( t )</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>41</td>
<td>.59</td>
<td>1.52</td>
<td>.1</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control</td>
<td>43</td>
<td>.19</td>
<td>.91</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The total control group indicated a mean gain score of .19, with a standard deviation of .91. The total experimental group indicated a mean gain score of .59, with a standard deviation of 1.52. An analysis of the mean gains indicates
that there was little difference in the attitude growth of the two groups. The \( t \) ratio between the two groups was .1, which was not significant at the .05 level of confidence. In order for the difference in mean gain to have been significant at the .05 level of confidence, a \( t \) value of 2.00 would have been necessary. The null hypothesis of no difference could not be rejected; therefore, the research hypothesis was rejected. Even though the standard deviation scores are considerably higher than the mean gain, it is not abnormal. The range of scores for the raw mean gain was 9.9 points for the experimental group and 4.5 points for the control group.

The Tenth Hypothesis

The tenth hypothesis was restated as follows: there will be no significant difference in the mean gain made by the above-average control group on the Remmer's Test of Attitude Toward any School Subject. The mean gains, standard deviations, and \( t \) value are presented in Table XVI.

\[
\begin{array}{l|c|c|c|c}
\text{Group} & \text{N} & \text{Mean Gain} & \text{Standard Deviation} & \text{Fisher's} t & \text{L.S.} \\
\hline
\text{Experimental Above-Average} & 15 & .16 & 1.38 & -.6 & \text{N.S.} \\
\text{Control Above-Average} & 12 & .41 & .58 & & \\
\end{array}
\]

TABLE XVI

MEAN GAINS, STANDARD DEVIATIONS AND FISHER'S \( t \) VALUE FOR EXPERIMENTAL AND CONTROL ABOVE-AVERAGE ON REMMER'S TEST OF ATTITUDE TOWARD ANY SCHOOL SUBJECT.
The above-average control group indicated a mean gain of .41, with a standard deviation of .58. The above-average experimental group indicated a mean gain of .16, with a standard deviation of 1.38. An analysis of the mean gains indicated that the greatest mean was not made by the experimental group but rather the control group. The t ratio between the two groups was -.6, which was not significant at the .05 level of confidence. In order for the difference in mean gains to have been significant at the .05 level of confidence, a t value of 2.06 would have been necessary. Since this score was not reached, the null hypothesis of no difference could not be rejected; therefore, the research hypothesis was rejected.

The standard deviations were higher than the mean gain due to extreme scores. The range of raw mean gain for the experimental group was 6.5 points and for the control group it was 2.2 points.

The Eleventh Hypothesis

The eleventh hypothesis was restated as follows: there will be no difference in the mean gain made by the average experimental group and the mean gain made by the average control group on the Remmer's Test of Attitude Toward any School Subject. The mean gains, standard deviations, and t value are presented in Table XVII.
The average control group indicated a mean loss of .25, with a standard deviation of .80. The average experimental group indicated a mean loss of .61, with a standard deviation of 2.07. An analysis of the mean losses indicated that each group had a loss, but the experimental group's loss was greater. The $t$ ratio between the two groups was .3, which was not significant at the .05 level of confidence. A $t$ value of 2.06 was necessary for the difference in mean gains to be significant at the .05 level of confidence. The level of confidence needed was not reached, and the null hypothesis of no difference could not be rejected; therefore, the research hypothesis was rejected. The standard deviations for the groups were somewhat high. This was explained by the extreme scores in the raw mean gains made by certain subjects. The range of raw mean gain scores for the control group was 2.6 points and for the experimental group it was 3.9 points.
The Twelfth Hypothesis

The twelfth hypothesis was restated as follows: there will be no significant difference in the mean gain made by the below-average experimental group and the below-average control group on the Remmer's Test of Attitude Toward any School Subject. The mean gains, standard deviations, and $t$ values are presented in Table XVIII.

### TABLE XVIII

<table>
<thead>
<tr>
<th>Group</th>
<th>$N$</th>
<th>Mean Gain</th>
<th>Standard Deviation</th>
<th>Fisher's $t$</th>
<th>L.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Below-Average</td>
<td>13</td>
<td>.53</td>
<td>1.03</td>
<td>.2</td>
<td>N.S.</td>
</tr>
<tr>
<td>Control Below-Average</td>
<td>15</td>
<td>-.13</td>
<td>1.14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The below-average control group indicated a mean loss of .13, with a standard deviation of 1.14. The below-average experimental group indicated a mean gain of .53, with a standard deviation of 1.03. An analysis of the mean gains indicates that the experimental group had a greater mean gain than the control group. The $t$ ratio between the two groups was .2, which was not significant at the .05 level of confidence. In order for the difference in mean gains to be significant at the .05 level of confidence, a $t$ value of
2.06 would have been necessary. The null hypothesis of no difference could not be rejected; therefore, the research hypothesis was rejected.

The standard deviation scores were higher than the mean gains, but this was due to the extreme scores in the mean raw score gains made by the subjects. The range of these scores for the control group and the experimental group was the same, 4.3.

From the analysis of the data of both the total groups and the subgroups, it was seen that neither control groups nor experimental groups showed any consistent results. Both above-average groups had a mean gain, both average groups had a mean loss, but the below-average control group had a mean loss, while the below-average experimental group had the largest mean gain of any group.

An analysis of group differences between pre- and post-testing showed that the below-average groups had the highest pretest and highest posttest mean, but showed less mean gain than the above-average groups which had the lowest pretest mean but the highest mean gain. The average groups started with a relatively high pretest mean but showed the only mean loss of the three different groups.

In order to gain information in regard to the satisfaction with the value of directed study by the experimental group, a five-statement questionnaire was administered to the students in the experimental group at the end of the trimester. These data can be found in Table XIX.
TABLE XIX

REACTION OF EXPERIMENTAL GROUP TO QUESTIONNAIRE
\( N = 40^* \)

<table>
<thead>
<tr>
<th>Number of Students</th>
<th>Percentage of Students in Total Class</th>
<th>Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>7.5</td>
<td>1. I feel that Directed Study should be a part of every student's program.</td>
</tr>
<tr>
<td>3</td>
<td>7.5</td>
<td>2. I feel that Directed Study should be a part of some students' program.</td>
</tr>
<tr>
<td>3</td>
<td>7.5</td>
<td>3. I am satisfied with Directed Study, and would take it next semester.</td>
</tr>
<tr>
<td>4</td>
<td>10.0</td>
<td>4. I am satisfied with Directed Study, but would like to return to regular class next semester.</td>
</tr>
<tr>
<td>2</td>
<td>5.0</td>
<td>5. I am dissatisfied with Directed Study, and would rather not take it next semester.</td>
</tr>
<tr>
<td>6</td>
<td>15.0</td>
<td>1 and 3</td>
</tr>
<tr>
<td>5</td>
<td>12.5</td>
<td>2 and 3</td>
</tr>
<tr>
<td>6</td>
<td>15.0</td>
<td>2 and 4</td>
</tr>
<tr>
<td>1</td>
<td>2.5</td>
<td>3 and 4</td>
</tr>
<tr>
<td>3</td>
<td>7.5</td>
<td>1 and 4</td>
</tr>
<tr>
<td>3</td>
<td>7.5</td>
<td>2 and 5</td>
</tr>
<tr>
<td>1</td>
<td>2.5</td>
<td>2, 4, and 5</td>
</tr>
</tbody>
</table>

*See Appendix A.

Questionnaire for Directed Study

There were forty-one students in the experimental group, but only forty filled in the questionnaire. One student was absent and did not fill in the form. Each student was asked to check as many statements as he felt expressed his feelings.
Fifteen of the students marked the questionnaire only one time. Of the total responses, only 7.5 percent felt that directed study should be a part of every student's educational program. An even lower percentage, 5.0, felt a dissatisfaction with the directed study and wanted to return to the traditional lecture method course. Ten percent of this group, however, felt a satisfaction with the directed-study method but would prefer to return to the traditional lecture method course. Seven and one-half percent felt that directed study should be a part of some students' educational curriculum, and 7.5 percent wanted to take American history by directed study again the next semester.

There were twenty-five students who checked the questionnaire in two places, and one student who checked it in three places. Fifteen percent of the forty students felt directed study should be a part of every student's program and also wanted to take American history by directed study next trimester. Also 12.5 percent of the group felt that directed study should be a part of some students' program, and they themselves desired to take American history by directed study the next trimester. There were 12.5 percent who felt directed study was suitable for some and they were satisfied with it, but wanted to return to a lecture class the next semester. Seven and one-half percent felt that directed study was suitable for some students but not for themselves.
There were three students—one from each academic level group—who felt that directed study should be part of every student's program. There were three students, two from the average group and one from the above-average group, who felt that directed study should be a part of some students' program. Of the three students who were satisfied with directed study and would take it next trimester, there was one student from each academic level. There were three students from the average group and one from the above-average group who had been satisfied with directed study but wanted to return to the traditional method the next trimester. The two students who were dissatisfied with directed study and wanted to return to the traditional method were from the average group. There were six students who checked number one and three. Two of these were from the above-average group, while four were from the below-average group. Of the five students who checked number two and number three, two students were from the above-average group, one student was from the average group and two students were from the below-average group. There were six students who felt directed study was all right for some students, were satisfied with it, but wanted to return to the class with the traditional method. In this category there were two students from each academic level group. There were three students who felt that directed study would be all right for some but not for them. In this category there were two students from the above-average group and one student from the below-average group.
The writer arbitrarily divided the responses into a group with a favorable attitude (statements one, two, and three, and two and three) and a group with an unfavorable attitude (statements four, five, two and five).

The one person who responded to statements two, four, and five was not included in either the favorable or unfavorable group because the response was contradictory. Also the same was done for the three students who responded to statements one and four. The one person who responded to statements three and four was not included since this person's responses were contradictory.

When one grouped the remaining responses, it was found that the below-average group had a slightly more favorable attitude (with ten points) than did the above-average group (with nine points). The average group showed the weakest responses to the unfavorable positions (with seven points). In the unfavorable attitude position the average was the strongest with seven points, the above-average was next with three points, and the below-average had only one point.

A pattern was established showing the below-average group having the most favorable attitude (a ten-to-one ratio) toward directed study. The above-average group was next with a nine-to-three ratio of favorable attitude. The average group had a seven-to-seven ratio of favorable attitude.
CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, IMPLICATIONS,
AND RECOMMENDATIONS SUMMARY

The purpose of this study was to test the effectiveness of the directed-study approach for teaching American history at the college level. The approach used to carry out the study has been defined and described. It was contrasted with the traditional lecture-textbook approach to teaching utilized in the control classes.

Students in the experimental group studied the same general topics as did the students in the control group. The primary aim of both groups was as thorough a coverage as possible of the scope of American history which is normally included in the first trimester of a two-trimester course. The students in the experimental group spent approximately one-third of their time in lecture, one-third in directed reading, and one-third in class discussion. The control method centered around reading the textbooks, taking notes on class lectures, and the testing of students for recall of facts and specific information.

In order to carry out the purposes of the study, three major hypotheses were formulated:
I. The mean gain made by the experimental group on the Crary American History Test will be significantly greater than the mean gain made by the control group.

II. The mean gain made by the experimental group on the Remmer's Test of Attitude Toward any School Subject will be significantly greater than the mean gain made by the control group.

III. The mean gain made by the experimental group on the California Study Methods Survey will be significantly greater than the mean gain made by the control group.

The research hypotheses were restated in the null form for statistical analysis. The study was conducted during the fall trimester of the 1968-69 school year in two colleges located in two standard metropolitan statistical areas. The two schools were similar in philosophy and in the socio-economic status of the student bodies. In regard to academic ability, the students were taught on a heterogeneous setting. At the beginning of the project, the raw scores made by the students on the Otis Quick-Scoring Mental Abilities Test were grouped into three levels for purposes of evaluating the effects of the program on students of varying academic ability levels. The three levels were above-average, average, and below-average. The highest group of raw scores formed the above-average group, the second highest group of raw scores formed the average group, and the lowest group of raw scores formed the below-average group. No attempt was made to divide
the experimental group and control group into three groups of equal size. Rather, the objective was to so divide the experimental group and control group that there would be no significant difference in the academic ability of one subgroup when compared with its counterpart.

Data were collected by means of pre- and posttesting. Appropriate statistical techniques were utilized.

When comparing mean gains of the experimental group with those of the control group, differences significant at the .05 level or better were not found on any of the three measures of achievement. Therefore, each research hypothesis was rejected.

Findings

The following indicate the findings regarding the research hypotheses:

1. There was no significant difference in achievement in American history as measured by the Crary American History Test between students who engaged in the directed-study approach and the students who were taught by the traditional lecture approach.

2. There was no significant difference in achievement in American history as measured by the Crary American History Test between students of above-average academic ability who engaged in the directed-study approach and the students of above-average academic ability who were taught by the traditional lecture approach.
3. There was no significant difference in achievement in American history, as measured by the Crary American History Test, between students of average academic ability who engaged in the directed-study approach and the students of average academic ability who were taught by the traditional lecture approach.

4. There was no significant difference in achievement in American history, as measured by the Crary American History Test, between students of below-average academic ability who engaged in the directed-study approach and the students of below-average academic ability who were taught by the traditional lecture approach.

5. There was no significant difference in achievement in study methods, as measured by the California Study Methods Survey, between students who engaged in the directed-study approach and the students who were taught by the traditional lecture approach.

6. There was no significant difference in achievement in study methods, as measured by the California Study Methods Survey, between students of above-average academic ability who engaged in the directed-study approach and the students of above-average academic ability who were taught by the traditional lecture method.

7. There was no significant difference in achievement in study methods, as measured by the California Study Methods Survey, between students of average academic ability who
engaged in the directed-study approach and the students of average academic ability who were taught by the traditional lecture approach.

8. There was no significant difference in achievement in study methods, as measured by the California Study Methods Survey, between students of below-average academic ability who engaged in the directed-study approach and the students of below-average academic ability who were taught by the traditional lecture approach.

9. There was no significant difference in change in attitudes toward the study of American history, as measured by the Remmer's Test of Attitude Toward any School Subject, between students who engaged in the directed-study approach and the students who were taught by the traditional lecture approach.

10. There was no significant difference in change in attitudes toward the study of American history, as measured by the Remmer's Test of Attitude Toward any School Subject, between students of above-average academic ability who engaged in the directed-study approach and the students of above-average academic ability who were taught by the traditional lecture approach.

11. There was no significant difference in change in attitudes toward the study of American history, as measured by the Remmer's Test of Attitude Toward any School Subject, between students of average academic ability who engaged in
the directed-study approach and the students of average academic ability who were taught by the traditional lecture approach.

12. There was no significant difference in change in attitudes toward the study of American history, as measured by the Remmer's Test of Attitude Toward any School Subject, between students of below-average academic ability who engaged in the directed-study approach and the students of below-average academic ability who were taught by the traditional lecture approach.

13. The students in the experimental group, as a total group and as subgroups, showed a slightly greater mean gain in knowledge of American history, as measured by the Crary American History Test, than did the students in the control group. The below-average experimental subgroup showed the largest difference between its mean gain and that of its counterpart. The difference in mean gain was not significant at the .05 level of confidence.

14. The mean gains made by the total experimental group, the above-average, and below-average experimental group, as measured by the California Study Methods Survey, were less than those made by their control group counterpart. The only experimental group which made a higher mean gain was the average subgroup. None of the mean gain differences were significant at the .05 level of confidence, and the
The directed-study approach seemed to be of help to only the average academic ability group toward developing better study methods.

15. The mean gain made by the total experimental group and the below-average experimental subgroup, as measured by the Remmer's Test of Attitude Toward any School Subject, were the only experimental groups which showed a mean gain that was greater than their control group counterpart. The average experimental subgroups showed not only less mean gain but also showed a mean loss in attitude toward the study of American history. It was found that of the students in the classes taught by the directed-study method, the average experimental group showed a mean loss that was larger than either the mean gains made by the total experimental group and the subgroups. The above-average control subgroup made a greater mean gain than any of the experimental groups except the total experimental group and the below-average experimental subgroup.

Conclusions

1. Directed study is no more effective than the traditional method in aiding the students in learning subject matter.

2. Directed study is no more effective in promoting effective study methods than is the traditional approach.
3. Directed study is no more effective than the traditional approach in promoting a positive attitude toward the study of American history.

4. From the results of the questionnaire given only to the experimental group, one could conclude that the below-average and the above-average subgroups approved of the use of the directed-study method. However, the average subgroup showed as much disapproval as approval of the directed-study method.

Implications

Each of the research hypotheses was rejected, but certain implications seem in order. However, these implications are limited to situations similar to those included in this study.

1. Since neither method proved to be significantly more effective than the other in terms of achievement, study methods, or attitudes, the one which is more economical in terms of money, staff, time, and equipment should be used.

2. Since the below-average subgroup came close to having a t value, related to knowledge achievement, that was significant in favor of the directed-study method, and the results of the questionnaire from the below-average experimental subgroup showed a positive reaction to the directed-study method; one could imply that consideration should be given to allowing the below-average students fewer lectures and more class discussion and outside reading. Also in
support of this, the results from the study methods test and the attitudes test did not show evidence that would contradict this move.

Recommendations

The following recommendations are based on the above findings:

1. Additional studies should be undertaken to determine the effects of a directed-study program for students of low academic ability in the learning of American history.

2. A longitudinal study is needed to ascertain the cumulative effects on the students who are taught by the directed-study approach over a period of two or three years.

3. Because directed study involves a multivariated approach, research is needed in the area of using a team-teaching approach. Some instructors are better at delivering lectures, some are better at conducting a small group discussion or individual conference, while others are better at serving as resource persons. If this approach proved to be successful, it would allow the students to receive the best skills of each instructor, making all areas of the course strong.
Appendix A

QUESTIONNAIRE FOR DIRECTED STUDY

Directions: Please mark (✓) the statement or statements which most closely represents your feelings regarding Directed Study.

1. I feel that Directed Study should be a part of every student's program.

2. I feel that Directed Study should be a part of some students' program.

3. I am satisfied with Directed Study, and would like to take it next semester.

4. I am satisfied with Directed Study, but would like to return to regular class next semester.

5. I am dissatisfied with Directed Study, and would rather not take it next semester.
APPENDIX B

COURSE OUTLINE

Unit One: The Morning of America 1450-1754

I. The Opening of the New World
   A. The first Americans
   B. The rise of commerce and the search for new trade routes
   C. Columbus and the discovery of America
   D. European rivalry for America and motives for colonization

II. The Chesapeake and New England Colonies
   A. The Jamestown colony
   B. The pilgrims—Plymouth
   C. The Massachusetts Bay Colony
   D. Puritan government and religious intolerance
   E. Maryland—a Catholic refuge

III. The Central and Southern Colonies
   A. Peter Stuyvesant and New York
   B. William Penn and Pennsylvania
   C. The fundamental constitutions and the Carolinas
   D. James Oglethorpe and Georgia

IV. The Colonial Self-government and Imperial Control
   A. England's imperial delay
   B. The Navigation Acts and the problems of enforcement
   C. The Colonial governments and the growth of Colonial self-government
   D. The Dominion of New England

V. The First American Way of Life
   A. The Plantation Areas
      1. Life on the plantation
      2. Religion and education
   B. The New England towns
      1. Occupations—industry
      2. Religion and education
Unit One: (continued)

C. The Middle Colonies
   1. The Quaker and Scotch-Irish
   2. Religion and education
Unit II: Evolution in Democracy 1789-1830

I. Launching the New Government
   A. The first president
   B. Undemocratic tendencies
   C. The national debt
   D. The frontier problems
   E. The foreign policy

II. The Freedom of the Seas
   A. English and French violations of American neutrality
   B. Party politics in U.S.
   C. John Adams and Thomas Jefferson

III. The Revolution of 1800
   A. Alien and Sedition Acts
   B. Federalist dissension and loss in 1800
   C. The new capital city
   D. America's economic status
   E. The arts and the sciences

IV. Jeffersonian Democracy
   A. "The less government the better"
   B. The Tripolitan War
   C. Repeal of Federalist legislation
   D. National land policy
   E. The Louisiana Purchase

V. The War of 1812
   A. The election of 1808 and the repeal of the Embargo
   B. The War Hawks
   C. The election of 1812
   D. American naval victories
   E. Treaty of Ghent

VI. New Nationalism
   A. A new era and the growth of manufactures
   B. The American way
   C. Nationalism in politics
   D. Supreme Court and John Marshall
Unit II: (continued)

VII. The Rise of the New West
   A. The reasons for the move
   B. Slavery and sectionalism
   C. The Missouri Compromise
   D. Foreign relations and the Monroe Doctrine

VIII. Sectional Cross-Currents
   A. Sectionalism in the United States
   B. Clay's American system
   C. Internal improvements
   D. Suffrage extension
   E. The Revolution of 1828
   F. The great debaters—Clay, Calhoun, and Webster

IX. The Reign of Andrew Jackson
   A. The Bank of the United States
   B. State extravagance
   C. Foreign trade
   D. Recognition of Texas
Unit III: Expansion and the Sectional Controversy  
1830-1865

I. A Period of Depression
   A. The independent Treasury
   B. Banking reforms
   C. Campaign and election of 1840
   D. The foreign policy

II. The Awakening of the American Mind
   A. Intellectual activity and New England's leadership
   B. The arts and education reform
   C. The Labor movement
   D. Prohibition
   E. The peace movement

III. Slavery and Abolition
   A. The "Cotton South" and the growth of slavery
   B. The abolition movement
   C. The effect of slavery on the southern whites

IV. Manifest Destiny
   A. The Santa Fe trade
   B. American interest in the Pacific West
   C. The campaign and election of 1844
   D. The Mexican War and its results

V. The Compromise of 1850
   A. The debate over slavery expansion
   B. Plans of compromise
   C. The Free-soil Party
   D. The Northern and Southern view of the Compromise
   E. The election of 1852

VI. Peace and Prosperity
   A. The transportation era
   B. Business and industry
   C. Immigration and native Americanism
   D. Douglas and the Kansas-Nebraska Act
Unit III: (continued)

VII. The House Divided

A. The birth of the Republican Party
B. The Dred Scott case
C. The Lincoln-Douglas debates
D. The election of 1860

VIII. Secession

A. The Confederate States of America
B. The Confederate Constitution
C. Lincoln and his policy
D. The border states

IX. The Civil War

A. Lack of preparedness, North and South
B. Strategy of the war
C. The war in the West
D. Gettysburg and Vicksburg
E. Grant vs. Lee
F. The Petersburg Campaign
G. Lee's Surrender
H. Losses of the war
### APPENDIX C

**TABLE XX**

RAW DATA ON PRE- AND POST-TESTING CONTROL GROUP

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### APPENDIX D

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APPENDIX E

TABLE XXII

MEAN RAW SCORE, STANDARD DEVIATIONS, AND t VALUES FOR EXPERIMENTAL AND CONTROL GROUPS ON PRE-TEST

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## APPENDIX F

### TABLE XXIII

Mean raw score, standard deviations, and t values for experimental and control groups on post-tests.

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