A COMPARISON OF ACQUIRED AND RETAINED STUDENT ATTITUDES TOWARD AN INDIVIDUALIZED AND A REGULAR IN-CLASS INSTRUCTIONAL APPROACH

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A Comparison of Acquired and Retained Student Attitudes Toward an Individualized and a Regular In-Class Instructional Approach

by

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A Thesis submitted in partial fulfillment
of the requirements for the degree of
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The undersigned certifies that he has read and recommends to the Committee on Graduate Studies for acceptance, a thesis, "A Comparison of Acquired and Retained Student Attitudes Toward an Individualized and a Regular In-Class Instructional Approach", submitted by L. Bruce Sheppard in partial fulfillment of the requirements for the degree of Master of Education.

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ABSTRACT

The purpose of this study was to determine students' attitudes toward individualized instruction as compared to their attitudes toward a regular in-class approach.

Two grade nine history classes were randomly selected to serve as experimental and control groups. The experimental group of 35 students was exposed to individualized study for three weeks while the control group containing 25 students worked in class with the regular approach to instruction. Following the three week instruction period, the Dubelle Student Preference Report, From B, was administered as a posttest while Form A of the Dubelle Student Preference Report was administered as a delayed posttest after four weeks had elapsed.

The data from both the posttest and delayed posttest were subjected to chi square analysis which revealed that there were no significant differences in student attitudes between the individualized study group and the regular in-class group. The data indicated, however, that while there was a preference for regular in-class instruction expressed by the majority of students from both groups, the exposure to the individualized study approach did not cause a negative reaction toward individualized study. Indeed, there was an indication that individualized study students had a more positive attitude toward it than students exposed to regular in-class instruction.

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THIS THESIS IS DEDICATED

TO MY WIFE SADIE

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CHAPTER I

Introduction

Investigations into the state of education in Canada have shown that methods of instruction have remained unchanged and have become obsolete and inadequate. Warren (1973), Brown (1968), Rogers (1969), and Humphreys (1969) argue that because of the explosion of knowledge, the memorization of facts does little to prepare students for a world which will demand increasingly imaginative solutions to problems. They suggest that the basic intent of education is to teach the individual to learn how to learn, how to adapt to change, and to teach them how to make wise decisions. Bloom states that, "Our present curriculum is obsolete because it was evolved for conditions and purposes of a world which no longer exists." (Brown, 1968, p. 47)

While most educators agree that the method of instruction has become obsolete and that changes are necessary so that schools may provide students with the opportunity to learn to live in an increasingly changing environment, investigations show that this challenge has not been met adequately. Indeed, investigations into the state of education in Canada have shown that little change has resulted in any area of education. Stevenson (1973) observed that

there has been dissatisfaction regarding education in Canada in the last ten years but these complaints have not offered much in the way of suggestions for change. Katz (1973) argued that the structure of education was fixed by 1880 and few changes have resulted since that time. Paton (1973, p. 49) reiterated this opinion in his statement that "curriculum reform in Canada remains in a constructive straitjacket imposed by traditional concepts."

Other investigations specifically dealing with instructional method have revealed that innovation in this area is practically nonexistant. Byrne (1969, p. 17) in a report to the conference on Canadian Studies suggested that, "We have based teaching practice on what might be termed the information storage and retrieval theory. This theory views the learner as a passive vessel for the storage of facts." This system, he argued, is totally unacceptable.

Similarly, Downey (1963, p. 107) perceived inefficiencies in educational method. He protested that our educational system is designed to transmit specific, traditional values and specific knowledge of facts and that the learner is being deprived of the most valuable of all educational experiences - the opportunity of self-inquiry and discovery. Indeed, Downey argued that "the natural inquisitiveness of the human mind is often killed through unfortunate learning experiences that often happen in some of our schools."

Beginning in 1965, A. B. Hodgetts (1968) directed a two-year investigation into the teaching of civic education in Canadian history, social studies, and civics classes in the elementary and secondary schools throughout Canada. One conclusion of this study indicated that civic education in Canada was in a deplorable condition and that students were developing very poor attitudes toward all subjects dealing with it. A large portion of this problem, Hodgetts concluded, was related to the teaching methods most commonly in use - the lecture method and the assignment method. The lecture method was a teacher-directed recitation of facts taken directly from the textbook; and the assignment method was the plan of assigning a few pages of the textbook to study at home, and spending class time in questioning pupils to find out what they remembered.

As a result of the Hodgetts study (1968), The Canada Studies Foundation was organized in an attempt to improve the Canadian studies program throughout Canada. Unfortunately, however, there appeared to have been few changes in any of these programs except, perhaps, in schools that had been directly involved in Canada Study projects. Warren (1973, p. 115) sent a questionnaire to superintendents of the school boards throughout Newfoundland and ascertained that while there were examples of new instructional approaches, "there is little doubt that 'teaching by telling'

remains the basic technique used in many of the province's high schools. Teaching is still seen primarily as the process through which the 'big jug' fills the little ones?"

In 1967, a prominent British newspaper, The Observer, gathered opinions of secondary school children regarding the kind of school they liked. An overwhelming response by these students was that they found the pattern of passive listening to the teacher quite unsatisfactory (Behr, 1971).

Rogers (1969), a veteran psychologist, criticized the present school system on the basis that it operates against all proven principles of learning. He argued that the present system assumes that:

1. The student cannot be trusted to pursue his own scientific and professional learning.

2. Ability to pass examinations is the best criterion for student selection and for judging professional promise.

3. Evaluation is education; education is evaluation.

4. Presentation equals learning - what is presented in the lecture is what the student learns.

5. Knowledge is the accumulation of brick upon brick of content information.

6. Students are best regarded as manipulatable objects not as persons.

Diametrically opposed to these assumptions are the current principles of learning. Bossing (1952) argued that

the persisting educational trend was toward the progressive philosophy of education and the Gestalt theory of learning. These schools of psychological thought stressed that learning must be accomplished by the individual for himself and that it takes place best when the student perceives a problem, works at this problem, and has successful results. Hilgard (1956) supported Bossing in his analysis of learning theories. He concluded that while there was no set theory of learning, there were fourteen points on which all learning theorists agreed. The present system of education as perceived by Stevenson, Katz, Byrne, Downey, Hodgetts and Warren appeared to be quite inadequate when considered in reference to these points. The present system does not trust students to learn, but the current principles of learning say that human beings have a natural desire to learn. This natural desire is called forth when the subject matter is relevant for the students' purposes, when external threats are at a minimum, and when self-criticism and self-evaluation are basic, and evaluation by others is of secondary importance. In spite of this students are forced to learn material which appears to have no relevance for them; they are expected to learn material and demonstrate that they know it by writing an examination. They are threatened that if they do not pass this examination, they may have to repeat the same grade the following

year. In addition our present system seems to equate learning with the presentation of facts and the accumulation of knowledge. Yet, research indicated that significant learning is acquired through "doing" and that the most useful learning in a changing world, such as ours, is the learning of the "process of learning" rather than the accumulation of facts.

According to the supporters of individualized instruction, it is compatible with modern theories of learning. Gagné (1967, p. 29) stated that "modern learning theorists (and it is difficult to think of an exception) consider learning to be a change that takes place inside the learner." An implication of this theory is that learning can, and often does, take place in the absence of a teacher. Indeed, Gagné (1970) argued persuasively for individualization. He commented,

> If one is concerned about how to make learning efficient, the focus of emphasis must be the student....The site of learning is not in a group nor is it in a relationship between instructor and student. The site of learning is the individual's central nervous system. For this fundamental and unarguable reason learning is individual.... Modern studies of learning suggested the clear implication that some idiosyncratic processing of information is done by the learner. This provides a fundamental process, and strongly suggests that individualized instruction represents the route of efficient learning. (p. 26)

Brown (1968, p. 35) argued that "education needs room and independent study permits the kind of expansion that is needed and desirable. It is a brand of education for

the life of our time."

Denby (1967) contended that few educators would likely quarrel with the argument that,

> As a learner is encouraged to be self-directed, he becomes involved in the purposes of his study and work. He grows more aware of the value of his learning and how it makes a difference in his day to day living....If, when they are on their own, tomorrow's citizens are to keep themselves knowledgeable and informed so that they may continue to be effective citizens of their world, they must begin to learn self-direction now. (p. 237)

He suggested that, since most educators agree with this argument, they must also agree that individualized instruction is the next logical step and that it should be one of the priorities of any educational system.

The arguments of proponents of individualized instruction regarding its compatibility with modern learning theories can be summarized as follows:

1. It provides an opportunity to meet the needs of individual students and provides practice in setting realistic goals.

2. It provides satisfaction and increased enthusiasm due to the freedom of choice which is inherent in individualized instruction. This freedom of choice allows the learner to engage in learning meaningful materials and meaningful tasks which provides for intrinsic motivation which is preferable to learning under extrinsic motivation.

3. It provides independence, self-discipline, and self-reliance, which are necessary attributes to successful

living.

4. It provides for active participation by a learner, which is preferable to passive reception. Also, this helps students to develop thought processes.

5. It develops skills needed for further learning and arouses interest to do so.

The goal of social studies in Canada is to "help students gain the necessary skills of democratic citizenship" (Hodgetts, 1968, p. 67). The Program of Studies (1978) for Newfoundland Schools indicated that the general objectives of social studies are to "...help students make informed decisions as adults in matters affecting themselves in their social relations and in the political and economic affairs of their community, country and world" (p. 64). Supporters of individualized instruction argued that it provides students with skills for successful living, and therefore, it appeared that the implementation of individualized study would direct social studies instruction in Canada toward the attainment of the proposed objectives.

Heretofore, the discussion has established a need for a different approach to social studies and has provided a theoretical basis for choosing individualized instruction as one possible alternative. In order to get a practical view regarding individualized instruction, the writer reviewed the extensive work of Alexander and Hines (1967).

They presented the results of an investigation of independent study (a form of individualized instruction) in the United States. They compiled a list of 317 secondary schools in the forty-eight continental States which were reported by state departments of education and other sources to have independent study programs. Based on the information obtained from the total study, Alexander and Hines (1967) presented the following conclusions about independent study in today's secondary schools:

> 1. There is widespread interest in independent study by reports in the literature, by the programs at professional meetings and by correspondence the authors have received, but only a small number of schools are making appreciable use of independent study as we have defined it. We estimate between one and two percent.
>
> 2. Many of these articles advocate that independent study should reach almost all students but most independent programs are directed toward the above average student.
>
> 3. Theoretically independent study should be just as feasible with the junior high school student as with the senior high school student, but most of the students participating in such programs are eleventh or twelfth graders.
>
> 4. Some teachers and some students feel that the selection of students for independent study should be even more rigorous than at present but few independent study programs are directed toward the slower student and have helped to meet personal, social, and economic needs of such students and have reduced drop-out rates.
>
> 5. Some schools would limit independent study to the so-called academic areas - mathematics, sciences, language arts, and social studies - but independent study is being used in practically all curriculum areas in other schools.

6. Most schools have tended to neglect systematic evaluation of research on independent study but few schools have pioneered some effective ways of evaluating their programs.

7. Overwhelmingly, those with experience in independent study favor it and feel that it should be expanded. School administrators are almost unanimous in their support.

8. Problems do exist, especially in terms of space, teacher and student schedules, financial support, attitudes of nonparticipating teachers, and teacher preparation for directing independent study. (p. 158-159)

In view of the indicated inefficiencies in the social studies programs (particularly in reference to the teaching methods employed in Newfoundland), the support given to individualized instruction by learning theorists, and the findings and recommendations of Alexander and Hines (1967), the researcher concluded that individualized instruction might provide one approach to improving the existing social studies program in Newfoundland. However, before any instructional method can be accepted as viable, it must be supported by appropriate data. Many studies have been conducted comparing independent study and the regular in-class approach in respect to student achievement and the conclusions are generally positive. Reviewers of the research on independent study, such as McKeachie (1963), Melnick (1969) and Newton (1972), argued that discrepancies exist in the studies comparing these two teaching methods regarding achievement because they deal with different areas of learning, for example, independent

study emphasizes the process of learning while the regular in-class approach stresses acquisition of knowledge of facts. They argued that the primary difference in the two methods is in student attitudes toward them and since this area is not well researched, they recommended that any comparison studies should deal with attitude rather than achievement. Consequently, the writer instituted an independent study program and conducted a study comparing student attitudes toward individualized and regular in-class instruction.

Statement of the Problem

The purpose of this study was to determine students' attitudes toward individualized instruction as compared to their attitudes toward regular in-class instruction.

The following research questions were specifically addressed:

1. Is there a significant difference in attitudes between students taught through an individualized study approach and those taught through regular in-class instruction among grade nine students?

2. After a four week period is there a significant difference in attitudes between students taught through an individualized study approach and those taught through regular in-class instruction among grade nine students?

Description of the Main Terms

The following terms are used in the following context in this study.

Regular In-Class Approach. The focus of teaching and learning is the prescribed textbook. Every activity which takes place within the classroom is centered around the textbook from which the teacher lectures; the major emphasis is on knowing the body of knowledge contained in the textbook. Objectives for instruction are basically descriptions of units within the text. The lecture method of presentation of information is the major form of teaching. Students engage in writing answers to selected questions and at completion of each unit there are pen and paper achievement tests.

Individualized Study Approach. Individualized study involves students in actively learning a body of content in a grade IX social studies unit. The format for this individualized study program is 20 percent large group instruction, wherein the teacher presents general objectives, explanations, and discussion of concepts to be learned; 20 percent small group instruction, wherein the teacher is a consultant and resource person who meets with small groups of students to go more deeply into discussion and explanation of points of difficulty that a student happens to be experiencing in relation to his attainment of the objectives; and 60 percent individualized study where the student's

learning activities are dependent on his own choice and are free from constant supervision. The resources for the individualized study - reading materials, slides, tapes, film strips and any other available resources - are provided in advance and arranged for easy utilization by all students. The teacher, having provided the resources, serves as a resource person or a guide from whom the students can be steered toward the learning resources. Also, he ensures that acceptable behavior is maintained in the work areas.

Attitude. The concept of attitude that was found most appropriate for this study is defined as follows:

> An attitude is the individual's organization of psychological processes, as inferred from his behaviour, with respect to some aspect of the world which he distinguishes from other aspects. It represents the residue of his previous experience with which he approaches any subsequent situation including that aspect and, together with the contemporary influences in such a situation, determines his behaviour in it. Attitudes are enduring in the sense that such residues are carried over to new situations, but they change in so far as new residues are acquired through experience in new situations (Newcomb, 1970, p. 22).

CHAPTER II

Review of Related Literature

Introduction

The purpose of this chapter was to trace the history of the individualized instructional approach, to analyze the research that has been done in this area of instruction in order to assess its viability in actual practice, and to ascertain the properties of a good individualized instructional approach in order to develop a workable program.

The individualized instructional approach, as defined in this study, is a modified form of independent study. The approach cannot be called independent study because of the limited time and minimum number of teachers involved. This modification was necessary since most educators recommended that independent study should be implemented slowly and over a longer period of time to avoid confusion and to allow administrators, parents, teachers and students an opportunity to familiarize themselves with this particular approach to instruction. Also, independent study requires some radical changes in the educational organization of the school and these changes can be difficult to implement. Consequently, this study was designed to gradually implement independent study, to assess its viability and to provide

information for the appropriate authorities to enable them to evaluate the program.

Since the individualized instructional approach, discussed herein, is a modified independent study approach, the literature that was reviewed dealt with this particular area of instruction. While much concern has been given to the use of individualized instruction, the literature related to it was inconclusive. Some studies indicated that individualized instruction led to higher achievement and improved attitudes. Other studies indicated that there were no differences between individualized study and the regular in-class approach and still others concluded that individualized instruction was inferior and that it led to lower achievement and negative attitudes.

McKeachie (1963) concluded that the results of research on the effectiveness of independent study (the individualized instructional approach) were not encouraging. He indicated that some studies showed positive indications, while others were negative. He argued that the variety of findings resulted from different organization of the individualized instructional programs and suggested that more research should be done strictly controlling the individualized learning experience and testing such intangible changes as motivation and resourcefulness.

Baskin (1960) reported on sixteen independent study research reports. The conclusions reached were as follows:

> Almost without exception, the customary academic examinations showed that students in the independent study experiments learned at least as much as the students who had regular class work. Rarely were there statistically significant differences in the performance of the experimental and control groups on regular or special examinations. (p. 5)

Melnick (1969) conducted a review of the research literature pertaining to independent study. He found research that supported the following five differing conclusions:

> 1. Independent study is superior to traditional methods in terms of learning efficiency.
> 2. Independent study is inferior to traditional methods in terms of learning efficiency.
> 3. There is no difference between independent study and traditional methods in terms of learning efficiency.
> 4. One advantage of independent study is that students appreciate the course more or are better motivated for further work.
> 5. Personality differences among students are related to success with independent study methods. (p. 6)

Melnick suggested that the discrepant findings were the result of differences in the method, the sample, and in the way that independent study was defined and organized. He recommended that more meaningful results would be obtained from studies of programs designed for specific school subjects, based on well defined independent study programs and evaluated on the basis of changes in student attitude and motivation.

Harley (1972) surveyed the published professional literature in the field of independent study in secondary schools in the United States. The specific purpose of the

survey was to ascertain if the sources in the literature were explicit and complete in their reports of independent study, if there was a generally accepted definition of independent study, and if the sources could serve as models in designing independent study programs. The results indicated that descriptions of independent study programs were inexplicit and incomplete, they lacked a generally agreed definition and generally provided unsatisfactory models for implementing independent study programs in secondary schools.

In view of the inconclusiveness of the research as indicated above and because of the limited work conducted in the area of individualized study in high school social studies, the writer deemed it necessary to study programs from other levels and in other subject areas as well. While it was recognized that there might be essential differences between the various levels and differing subject areas, it was believed that the greater volume of related evidence would provide a better basis upon which to assess the viability of the individualized instructional approach and to ascertain the attributes which constitute a successful program.

Historical Background

Brown (1968) and Melnick (1969) sketched the history of independent study and they clearly indicated where the

technique developed and advanced. The first, and most significant program of independent study was the tutorial system which originated at Oxford University in England. The earliest reference to this system, contained in Sir Charles Mallet's A History of the University of Oxford, referred to tutors as early as the fifteenth century.

In America, independent study had its actual beginnings at Harvard University, when the elective system was introduced in 1869. After this, a few independent study programs were implemented in various colleges throughout the United States. St. Vincent's College at Latrobe, Pennsylavania, began a required program of independent study as early as 1870. Other early programs were employed at Princeton, 1905; Guilford College, 1910; Reed College, 1911; and Rice Institute in 1913. Most of the programs implemented before 1920, were required programs, demanding participation of all students. After 1920, independent study became the exclusive privilege of the brighter students. This type of elective program was initiated at Swarthmore in 1921. Expansion continued, and in 1944, Aydelotte identified 130 accredited colleges and universities with senior independent study programs. In 1954, Bonthius, Davis, and Drushal found that 286, or 26 percent of the institutions studied, used it; and in 1964, Felder reported that 68 percent of the colleges and universities studied, used some form of independent study.

Independent study for high school students was not suggested until 1956 by J. Lloyd Trump (1968). He suggested that 40 percent of the students' time in school should be given to independent study. This idea was expanded in the sixties by the advocates of modular scheduling who saw it as a technique for expanding their innovation. Brown (1968) suggested that this severly retarded the independent study movement in high school, since educators equated independent study and modular scheduling and rejected them both. However, independent study received renewed attention after the launching of the first Sputnik, when schools were searching for means of improving education to realize the greatest potential of each individual. In response to this renewed awakening in education, the non-graded program was accepted. Melbourne High School recognized independent study as the ultimate method for this non-graded system and implemented it. Many educators followed this lead and implemented their own independent study programs. With the knowledge explosion, where knowledge is expanding and changing at a phenomenal rate, Brown (1968) suggested that many more educators were accepting that the only logical approach to education is independent study.

Existing Individualized Study Programs

This section refers to two distinct sources of information. The first source is based on scientific research, which through the use of opinionnaires, questionnaires, and structured interviews provided information regarding the attitudes and opinions of students, teachers, and administrators toward existing individualized instructional programs. The second source is based on reports of individualized instructional programs from people who have been directly involved in them. These reports are based on observations and on evaluations which are somewhat less than scientific. However, information from these sources was valuable to this study in that the studies provided an analysis of existing programs and offered the knowledge of experience to the designer of the individualized instructional program. Also, they provided information regarding attitudes of teachers, students, and administrators toward individualized instruction which had been frequently neglected in scientific studies because of difficulties experienced in assessing attitudes (Shaw and Wright, 1967).

Scientific Research. Magdala and Dressel (1970) made a survey of a random sample of colleges and followed it up with visits to a selected sample whose use of independent study appeared to be more extensive or imaginative. This was done to verify the observation that independent study is less impres-

sive in practice than in print. Through stratified random sampling from the 1126 liberal arts colleges and universities in the United States, 276 were chosen to participate in the study. They concluded that the overall picture of independent study was not encouraging. Little evaluation of independent study had been done, and there was no evidence that it was any more effective than other practices.

Larkin (1969) conducted an analysis of independent study programs in thirteen junior high schools throughout Indiana. He used the interview method for gathering data. The data were collected from 13 administrators, 41 teachers and 79 students. The main findings were generally positive. Students believed that independent study improved their study habits, and gave them opportunity to think individually. The over-all attitude toward independent study among students, teachers, and principals was favorable. His conclusions were similar to those of Magdala and Dressel (1970) that evaluation and action research which would attempt to measure the effectiveness of independent study in achieving pre-set goals and objectives were not evident in the majority of the schools studied and he recommended the necessity of such evaluation if the independent study programs were to continue.

Engles (1971) investigated the effects of independent study programs as perceived by teachers and principals upon student control in selected secondary schools. He used a teacher questionnaire and a principal interviewer guide to

gather the data. The major findings of the research were as follows:

1. School attendance was positively affected.

2. Teachers and principals agreed that much time was wasted in roaming and talking in hallways and student lounges.

3. Teachers and principals perceived that a minority of students often exhibited poor self-discipline when participating in independent study and they suggested more controls.

4. Teachers and principals felt that younger less academically talented students made unwise decisions while pursuing independent study.

5. Teachers and principals indicated that student interest in subject matter and academic pursuits was greater under independent study programs.

6. Teachers indicated a feeling that students' disrespected authority, but principals felt that better relationships existed between the students and staff.

This study indicated that teachers and principals perceived independent study favorably in regard to student interest in school; however, it suggested that independent study programs should be controlled to encourage worthwhile participation from students who are less self-motivated or those who have little self-discipline.

A similar study conducted by Filene and Kief (1976) studied student and teacher opinions toward an independent study program at South Hills High School, California. Questionnaires were distributed to teachers and students during the first and second years of the program. The study was designed to evaluate the relevance of the program in preparing students for higher education, relevance of the program in inducing student maturity, and success of the program in making school more interesting and enjoyable for the students. The results of the questionnaires indicated that the program was generally successful in the areas tested.

Evans (1968) studied nine schools that had independent study programs in operation. A panel of five national experts visited these schools for three days and collected data. On the basis of these data three schools were classified as highly successful and six less successful. Evans analyzed the programs in the schools to ascertain the characteristics which made the programs successful or unsuccessful. He reached the following conclusions:

1. Teachers involved in successful programs gave more attention to program objectives such as providing for individual student differences, helping develop an inquiring mind and developing self-initiative.

2. Good leadership existed in successful programs but it did not matter whether the leadership came from the principal, teacher or another administrator.

3. Teachers in successful programs were provided time to work individually with the students, and gave students more help in project endeavors and in evaluating their own progress.

4. Successful programs limited student activities and movement so that an effective learning environment was maintained.

5. Successful programs provided more to motivate students and to stimulate student interest.

6. Superior programs had the appropriate facilities and used them wisely; students were given guidance regarding independent study and were given easy access to a good collection of printed and AV resources.

7. All the schools, except one less successful one, used large-group and small-group instruction with independent study in their programs.

Evans recommended that these characteristics should be considered by any school, planning an independent study program.

Murphy (1967) conducted research in two large schools in Oregon that had independent study programs in progress. One school which was situated in a large metropolitan area

had an enrollment of over 2000 boys and girls. The other school was located in a small city and enrolled over 1000 boys and girls of whom approximately 25 percent lived in the surrounding agricultural area. The school counselors, on the basis of achievement tests, divided the students into high, average, and low ranges. Other techniques included in the study were student diaries and opinionnaires both of which were piloted before being used in gathering data for this research. From this study Murphy concluded that:

> 1. 95.5 percent of the students in one school and 91.7 percent in the other school stated that they liked the opportunities provided by independent study.
> 2. More than 50 percent of the students in both schools agreed that independent study made them want to find out more about the subject matter they studied.
> 3. Approximately 60 percent of the students experienced little difficulty in adjusting to independent study, and more than 70 percent found independent study easier after a small group discussion in which teachers helped them to plan.
> 4. More than 50 percent in both schools indicated that independent study would be more useful if they knew how to make better notes.
> 5. From 70 percent to 94 percent of the students who took part in this study agreed that the following facilities were desirable for independent study: studying where they could easily obtain their own books and materials; studying near or in a resource center or library where teachers or teacher aides were available for consultation; studying with two or three students who were studying; studying where audio-visual materials, typewriters, adding machines and slide rules were available for student use; and studying where all lights could be easily adjusted.
> 6. The library, taking part in independent study, the study center, and the subject resource center were the four most important resources which students thought helped them to develop better study habits. (pp. 98-101)

After making these conclusions, Murphy recommended that all students should be given the opportunity of independent study but that special consideration should be given to special groups of students according to their needs and that guidance should be given to students to help them adjust to the independent study system.

Beltz and Kohn (1970) described programs in five Missouri high schools. They observed that these programs varied from simple to complex in organization but irrespective of this, they were successful. They argued that the program must be tailored to suit the needs of the school, the teachers, and pupils. The first school described was Walkins High School, St. Louis, Missouri. Four hundred students were scheduled with a team of twenty teachers to do independent study in English, mathematics, social studies, science, and foreign languages.

Beltz and Kohn stated that students interviewed expressed satisfaction with the program and that teachers expressed satisfaction with the projects completed by the students. All people interviewed felt that student enthusiasm increased because of freedom of choice.

From their observations made at the Hogan High School, Kansas City, Missouri, Belta and Kohn reported that the program of independent study, begun in 1967-68, required each of 648 students to spend approximately 40 percent of their

time in small group work, 30 percent of their time in large group work and 30 percent of their time in independent study. Here, if an empty module appeared on his schedule the student was free to work in the resource center, art room, business room or science laboratory, attend a conference, work in a study carrel, arrange with the teacher to audit a class not on his schedule or use the time for recreation.

It was observed that both students and teachers talked enthusiastically about the merits of this program.

In their third observation at the University of Missouri Laboratory School, Columbia, Missouri, Beltz and Kohn reported that during four hours each day students were free to engage in individualized work. This consisted of work in advanced biology, appreciation of fine arts, bookkeeping, consumer economics, journalism, physics, typewriting, social studies, business law or general psychology.

At registration the students selected their individualized courses and were given their programs. These programs included reading lists, tapes and conference schedules. They also received plans from their teachers and were permitted to proceed at their own rate. It was reported that students attended large group lectures, seminars and conferences when they were scheduled.

Students were observed spending a lot of time in the senior study room working on their packages. A resource

room was located across the hall from the study room where students could use reading machines, programmed learning devices, tape recorders, record players, rear view projectors, televisions and taped review materials. The rooms were monitored by teachers and it was reported that these rooms were the scenes of a great deal of busy purposeful activity.

In their fourth observation of independent study at Dexter High School, Dexter, Missouri, Beltz and Kohn reported that beginning in 1967-68, ten high ability students were entered in a course of independent study. The students, by application, had indicated earlier the work they wanted to undertake.

Students met teachers two or three times each week until their projects were established; after this they were given a free hand to work on their topics. After completing their research in the library the students, depending on the nature of their projects, went to open laboratories, to practice rooms or remained in the library.

Beltz and Kohn reported that students interviewed were enthusiastic about independent study and wanted to continue. They saw few problems with the program and wanted to discuss individual quests. They indicated, however, that more of their teacher's time was needed and that more books and better equipment would be beneficial.

In their report from the Oak Park High School, Kansas

City, Missouri, Beltz and Kohn observed that a simple but effective independent study program was introduced. This program was new and still expanding at the time of observation. It had functioned smoothly for seven months during which time 102 eleventh and twelfth grade students attended classes when directed by their teachers. At all other times however, they were free to study in small study rooms, the library, or laboratory. They were permitted from three to four hours of independent study per week. The students reported to class seminar sessions or conferences whenever scheduled.

Beltz and Kohn reported that teachers experienced some difficulty in changing from the role of presenter to the role of guide but after a short period of time accepted their new role as preferable to the old.

In summarizing their report Beltz and Kohn stated:

> It is our contention that school and its curriculum must be relevant to individuals, that it must be flexible and provide for exploitation of individual interests, ideas and opportunities. This relevance can be accomplished by implementation of independent study concepts. The attitudes of persons involved in the model programs were positive. They not only wanted to continue to have independent study experiences, but also indicated that other schools were "missing a bet" by not experimenting with similar programs. (p. 337)

Reports. Similar positive findings were indicated by educators who had been directly involved with individualized instructional programs. Culley (1973) reported on an individualized study program instituted in grade IX and grade X social

studies at Marshfield Senior High School, Oregon. This program was designed in anticipation that it would lower the failure rate and raise the attendance record. The program was strictly controlled and teachers designed the learning stations. Students were instructed regarding when and where the learning stations were to be conducted. However, once the initial instruction was given, students worked independently and the teacher acted as a resource person. This program was instituted during the third quarter, and when compared to the first and second quarters the failure rate was lowered from 28 percent to 4 percent and absenteeism was lowered from an average of 6.8 days per student to 4.8 days. When students were asked if they would recommend social studies taught by this method to a friend next year, 70 percent answered yes, 20 percent said no, and 10 percent were undecided. It is apparent that this program was successful in its objectives; however, one must be cautioned that the figures discussed compared two semesters with one semester, and that during the one semester, students were doing something different (individualized study) and consequently, the "Hawthorne" effect may have played a role in the changes in achievement and attendance.

Holmes and Higgs (1964) reported on two projects of independent study in social studies in two small high schools in Colorado. Holmes and Higgs were involved in designing and implementing those programs and a basic pattern was fol-

lowed. Each unit began with teacher presentation to a large group to introduce the topic. This presentation was followed by independent study and small group discussion or consultation. The final phase was individual class presentations. These programs were not subjected to statistical analysis, but they were extensively evaluated by regular academic grading criteria, two questionnaires, and observational reports. The evaluation compared the independent study method with the traditional method which students followed prior to the institution of the new program. The results indicated that independent study encouraged critical thinking, it increased interest, enhanced good study habits, improved skills in decision making and research, and provided for individual differences in that students were given the opportunity to work at their own rate in areas of interest to them.

Moody (1970) reported on a similar project in grade twelve social studies, at the Laboratory School at Missouri University. Six independent study units were developed and piloted and the feedback was positive. Moody stated that most students seemed to enjoy independent study and the packages, and experienced little difficulty with them. Indeed, the success of these pilot projects in independent study was so satisfactory they planned to design another twenty-five units.

Glatthorn and Ferderbar (1969) reported on an independent study program which they administered at Abington High School, Pennsylvania. As a result of their program, Glatthorn and Ferderbar claimed that 97 percent of all students in grades nine and ten can profit from independent study.

One quarter of the school's time was devoted to independent study. During this time the student was given freedom of choice to go where he desired and to work on any project for which the school could provide resources, but the school did have rules which restricted the student's activities.

This school did have its problems. Many parents and teachers were skeptical about this type of education and the freedom it provided the children. Also, even with the restrictions placed on the students, approximately 3 percent misbehaved and a special area had to be provided for them. In spite of this, there were signs of success. Figures were submitted weekly by department chairmen on the number of students using the different facilities. About 70 percent of the students used the library each day. Another very encouraging fact reported is that the average student worked in four different study centers during the week; he spent more time in the quiet study area than he did in the 'talking commons'. Finally, many students indicated through unsolicited testimonials that they enjoyed the program. While

this information was not reinforced by statistical data, it should not be dismissed since it does provide some indication that positive attitudes might exist toward independent study endeavors.

Goldsmith (1965) described how he organized a program for ninth graders at Baltimore's Pumlico Junior High School. This program was well organized and well controlled. In order to participate in independent study, students had to exhibit a capacity and interest for learning, to have an I. Q. of 120 or more and to be in good physical and emotional health. Goldsmith emphasized that the program had to be well organized by the teacher in order to make it a success. There was a thorough evaluation of the study at the end of the six month semester by students, teachers, parents, and supervisors. It was concluded that the program was a six-month success, the students took giant steps forward in growth, learning and maturity. It was highly recommended to be a permanent part of the school's program.

Ritter (1970) described another successful independent study program which took place at Coatesville Area Senior High School. Individualized study was offered in English, social studies, mathematics and journalism. In the first year, teachers hesitated to take part, enrollment in the program had to be limited, and screening took place. However, some students whom teachers felt could not handle the

individualized study plan were purposely admitted and several became outstanding achievers. In the second year, the program was expanded and no screening took place. The program was highly organized. Students met in class at the beginning of each unit where they were informed of the necessary details and often given objectives that were to be achieved. This experiment did not undergo a highly structured evaluation but students were asked to react to a set of questions regarding individualized study. The results were as follows:

> 1. Eighty-one percent to 88 percent of the students reported that they fulfilled their objectives in taking a particular course by independent study; 9 to 14 percent felt they had not; the rest were undecided.
> 2. Seventy-seven percent to 87 percent said they preferred the independent study method; 6 to 11 percent did not prefer it; to the rest it didn't matter.
> 3. Sixty-one percent to 81 percent felt they learned as much or more by this system.
> 4. Eighty-two percent to 97 percent felt their depth of comprehension to be as great or greater. (p. 78)

Congreve (1965), the principal of the University of Chicago Laboratory High School, added another positive testimonial for independent study. He had the following to say regarding an independent study program carried out in his school:

> The program worked! To be sure, some students were ill directed for awhile and wasted much of their time, but many more demonstrated a greater enthusiasm toward learning than had been seen before in regular classroom programs. (p. 296)

Axelrod (1973) commented on an independent study program at Hamden High School in Connecticut. This program had been in operation since 1968, and included the disciplines of English, foreign languages, science, mathematics, and social studies. Axelrod stated:

> The procedure has been proven most satisfactory. Overwhelmingly, student performances have been of quality calibre. ...It has shown that students can 'turn on' to learning when they are released from classroom routines and allowed to explore their own interests. (p 105)

Plunbett (1977) who was a director of an independent study program in the Syosset, Long Island School, concluded that, "Independent Study in high school works if the students are prudently selected, given proper guidelines, reasonably good facilities, and cooperative professional personnel." (p. 52)

Whitmire (1966) appeared to agree with Plunbett that students should be selected. She reported on an independent study program at Melbourne (Florida) High School. This program was open to a special group of students only. The requirements were that the student should have a "B" average and that he should have qualities of creativity, initiative, curiosity, motivation, interest, and a sense of responsibility. Having passed the above requirements, the student in consultation with his faculty consultant produced an outline of what he planned. During the actual process, the student was required to submit work from time to time,

and also, he was subjected to periodic oral examinations. If the student received a mark of "C" he was considered for withdrawal from the program.

The conclusions drawn by Whitmire are that there were some problems but the majority of the students turned out well. She stated:

> Working independently encourages self-discipline and self-reliance, characteristics desirable for advanced study and good equipment for living in a competitive world.
> The program allows the student to follow a course of special interest where his motivation is high. Working on his own, a student learns more about his own learning and study habits. (p. 46)

The foregoing literature indicated a positive attitude toward individualized instruction by the students, teachers, and administrators who have been involved in such programs. However, it also suggested that problems do result and that if individualized instructional programs are to be successful they must be well organized and well controlled, and statistical evidence regarding their success or lack of it must be provided. The shortage of this statistical evidence was indicated by Magdella and Dressel (1970) and by Larkin (1970), and is further substantiated by the foregoing numerous reports of individualized instructional programs that were not statistically evaluated.

Comparative Studies - Research

The purpose of the preceding section was to provide information regarding the general attitude toward individualized instruction and to supply important organizational

information for implementation of such a program. The purpose of this section is to provide statistical information regarding the worth or viability of the method. As previously suggested in the introduction to this chapter, the research pertaining to individualized instruction was inconclusive. On this basis, it was decided that the research studies would not be restricted to high school social studies but would include other levels, and other subjects as well. This enabled the researcher to get a better sample of the research studies conducted and provided a broader base on which to assess the results. Table 1 provides a detailed summary of this research.

General Research Studies. It has been established in chapter 1 of this paper that the persisting educational trend is toward the progressive philosophy of education and the Gestalt theory of learning. Also, it has been substantiated that individualized instruction is compatible with these schools of thought. Consequently, any study assessing the viability of individualized instruction should include the classical research effort in progressive education - the so-called "Eight-Year Study" which was in progress from 1933 to 1939 (Wallen and Travers, 1963). This study attempted to ascertain the relative effects of progressive education in high school upon college performance as compared to the traditional approach to teaching. One thousand and seventy-five graduates were chosen from conventional schools in terms

TABLE 1

Research Comparing Individualized and Regular In-Class Instruction

Author and Date of Publication	Grade Level	Subject Area	Treatment Comparison	Statistics Used	Outcome
Alexander (1968)	Junior High	Social Studies	A comparison in attitudes, habits, and knowledge of study techniques between students studying under independent study and those studying under traditional classroom procedures.	t-test	No significant differences were found between groups in areas studied.
Atherton (1972)	University	Social Welfare	A comparison of the effects of lecture, discussion and independent study on recall of facts, understanding of content and application of principles.	one-way analysis of covariance using grade point average as a predictor	No statistical differences were found. However, some support was given to face to face teaching.
Beyer (1975)	University	History	A comparison of the productivity of an individualized study program and the traditional lecture approach.	analysis of variance	The individualized study group made significantly more gains in content knowledge and problem solving and were more enthusiastic about the instructional techniques.

TABLE 1 (Continued)

Author and Date of Publication	Grade Level	Subject Area	Treatment Comparison	Statistics Used	Outcome
Braley (1972)	High School	Chemistry	A comparison to determine the difference in achievement resulting from two teaching methods-the traditional method and independent instruction.	Analysis of covariance	No significant differences were found.
CVAE [Coordinated Vocational-Academic Education] (1972)	Junior High (underachievers)	Science, mathematics, language arts, social studies	A comparison of student achievement, attitudes, discipline, and attendance as a result of individualized instruction as compared to regular in-class instruction.	t-tests	All findings favored individualized instruction however the only statistically significant findings were in the area of attendance and discipline. As a result of individualized study absenteeism declined (significant at .001 level) and discipline improved (significant at .05 level).

TABLE 1 (Continued)

Author and Date of Publication	Grade Level	Subject Area	Treatment Comparison	Statistics Used	Outcome
Frogge (1964)	High School	Social Studies	A comparison of the reflective method and traditional method in achievement, critical thinking, knowledge of the principles of democracy and student attitudes toward the course, the method and the teacher.	Analysis of covariance	No significant differences in any area except for attitude toward the teacher. Students studying under the reflective method had more positive attitudes toward the teacher than students involved in the traditional method (Significant at .01 level).
Griffiths (1973)	University	Introductory chemistry	A comparison of individualized instruction and the conventional lecture method regarding student achievement.	Multiple linear regression	Individualized instruction produced a marginally significant gain in achievement.

TABLE 1 (Continued)

Author and Date of Publication	Grade Level	Subject Area	Treatment Comparison	Statistics Used	Outcome
Hanneman (1972)	High School	Geometry	A comparison of independent study and the conventional classroom instruction in regard to student performance, pacing, and attitudes of students toward mathematics.	Analysis of variance	(a) No significant differences were found in pacing or in attitudes. (b) On achievement tests, the independent study group scored significantly higher (.01 level) than did the conventional group. (c) On post-experiment questionnaires forty students who had studied under independent study perferred to study that way, while only three expressed a desire to return to conventional classroom instruction.
Hartnett and Stewart (1966)	College	English, human behavior, biological science, physical science, mathematics, American Ideal	A comparison of students between traditional method and independent study.	Analysis of variance	The results favored independent study in all areas, but only two were significant. Achievement in mathematics and in American Ideal was significantly higher for the independent study group at the .05 level of confidence.

TABLE 1 (Continued)

Author and Date of Publication	Grade Level	Subject Area	Treatment Comparison	Statistics Used	Outcome
Himmel (1972)	College	Introductory psychology course	A self-directed study program is compared to the traditional lecture approach in regards to achievement and attitude toward the teaching learning method and subject matter content.	t-test	All results favored the self-directed group but only the following were significant: (a) greater achievement (significant at the .05 level) (b) Higher ratings for teaching-learning method (significant at the .001 level).
Hug (1970)	High School	Biology	A comparison of independent study, small group discussion, large group discussion and a combination of all three in regard to achievement and attitude of students toward instruction.	Analysis of covariance	(a) No significant difference in achievement. (b) Substantially better attitudes were expressed by the independent study group.

TABLE 1 (Continued)

Author and Date of Publication	Grade Level	Subject Area	Treatment Comparison	Statistics Used	Outcome
Kline (1971)	Grade VIII	Earth Science	A comparison of student achievement and attitudes toward self-directed and teacher-directed instruction.	Analysis of Covariance	No statistically significant differences were found.
Lodato (1968)	High School College	English history physics chemistry biology	A four year study comparing an independent study program with the traditional approach in areas of achievement, study habits, library skills and school satisfaction.	t-test at high school level. Chi square at college level	Findings favored independent study and significant differences were found in areas of library skills, study habits, and satisfaction with school, and significantly more independent study students chose majors in their freshman year in college.
McKeachie, Forrin and Teevan (1960)	College	Introductory Psychology course	A comparison of a special teaching approach with that of the conventional lecture-discussion approach.	t-test	The conventional method was significantly superior to the tutorial method in communicating information (.05 level) but the tutorial students were significantly more favorable in their ratings of the course (.05 level).

TABLE 1 (Continued)

Author and Date of Publication	Grade Level	Subject Area	Treatment Comparison	Statistics Used	Outcome
Novak (1958)	University	Botany	A comparison of student achievement under two different methods of instruction in the project centered approach and the conventional approach.	t-test and analysis of covariance	No significant differences were found, but all outcomes favored the project centered approach-knowledge of facts, ability to solve problems, and scientific attitude. However, in the area of fact retention the conventional approach was favored.
Possien (1965)	Grade VI	Social Studies	A comparison of three teaching methodologies-the inductive approach, and two methods of the deductive approach.	Analysis of covariance	(a) No significant difference in achievement. (b) A significant difference favoring the inductive approach was found in attitude and problem solving behavior.
Scarpino (1972)	Grade XI	Science	To determine if there existed a significant difference in achievement, attitude and laboratory skills between students involved in independent study and a traditional study group.	Analysis of variance	(a) No significant difference in achievement existed between groups. (b) A significant difference existed favoring the independent study groups on laboratory skills (.05 level of significance)

TABLE 1 (Continued)

Author and Date of Publication	Grade Level	Subject Area	Treatment Comparison	Statistics Used	Outcome
					(c) The independent study students showed stronger preference toward independent study but this difference was not significant.
Stuck and Manatt (1970)	College	School Law	A comparison of an individualized instruction approach with the traditional method.	Multifactor analysis of variance	The individualized instruction students showed significantly greater gains in achievement than did the traditional group. (significant at the .01 level).
Taylor (1972)	High School	Mathematics	A comparison of independent study and the traditional lecture discussion method of instruction regarding achievement and student attitudes.	t-test	No significant differences were found.

TABLE 1 (Continued)

Author and Date of Publication	Grade Level	Subject Area	Treatment Comparison	Statistics Used	Outcome
Wallen and Travers (1963)	High School and College	All subject areas	A comparison of the progressive approach to education with the conventional approach in terms of grades earned, college performance and certain intellectual characteristics, such as citizenship, not necessarily measured by grades.	Descriptive comparison	The conclusions indicated that students taught through a progressive approach were as good as and more often better than those taught through the traditional approach.
Wilson (1972)	Grade IX	Geography	A comparison of small group discussion, peer-teaching, and independent study in respect to critical thinking and knowledge and understanding of subject matter.	Analysis of variance and Duncan's Multiple Range Test	No significant differences were found.

of scholastic aptitude, interests, and socio-economic background. Four classes were included in the study and the follow-up was carried on in thirty-eight colleges of four types; northeastern men's colleges, northeastern women's colleges, co-educational endowed colleges and universities, and midwestern state universities. Success in college was defined as grades earned in coursework; citizenship in the college community as indicated by the extent and quality of interest in extra-class activities; the attainment of personal goals as revealed by the nature of vocational orientation; and concern about the contemporary scene and attitudes toward and relation to contemporaries. Data were gathered from regular interviews with students, questionnaires, records of reading and activities, reports from instructors, official college records, and comments of college officers, house heads, and others who had contact with the students. These data were used to judge students in some sixty separate areas such as thinking, participation, problem solving, and personal-social relationships. The conclusions of the study indicated that the students taught through a progressive approach were as good as and more often better than those taught through the traditional approach.

When six of the most progressive schools were selected and compared with matched groups, it was found that the superiority of the progressive schools became more pronoun-

ced. This trend was further supported when the two most progressive schools were used in comparison. It was found that students from these schools were the most superior in the areas studied. It was concluded that the more progressive the school, the better the students would perform at college level.

Wallen and Travers (1963) in reporting on this study, cautioned the readers not to accept these findings without considering its weaknesses. They pointed out that the comparison groups were matched with the progressive groups on characteristics thought to be related to academic success. Matching is not a good method to insure that the groups are equal. Randomization is the best method for this and this could not be done; therefore, many other variables might have affected the outcome of the study. Wallen and Travers (1963) also criticized the method by which both groups were selected for college. The progressives were selected on the recommendation of school authorities, while this was not done for the students of the conventional schools. They argued that this procedure may have insured that the best and most highly motivated students were chosen from the progressive schools, while the average came from the traditional schools. Furthermore, it was suspected that the home and community environment of the progressive students were more conducive to learning than that of the traditional environment.

Another limitation of this study deals with the phenomenon of regression toward the mean. The students from the traditional schools were selected mainly on the basis of test scores while the students from the progressive schools were not. Since the traditional students were selected on the basis of extreme scores, the regression toward the mean might have caused the scores to drop in retesting. The argument is that perhaps the traditional students selected were not as intelligent as first indicated.

A final criticism has to do with the "Hawthorne Effect." Teachers and students involved in the progressive approach might have been motivated because it was something new, and therefore the better results might have been a result of this effect and not the teaching approach itself.

This study has its limitations, but it does have implications that the progressive approach is worth consideration and that it has possibilities of being a viable approach to teaching. Indeed, Wallen and Travers (1963) quoted twelve other studies comparing the progressive approach with traditional procedures. These studies were conducted in elementary grades and high school and indicated that the progressive approach produced the same or higher achievement in subject-matter and was superior in creating initiative, work spirit, and critical thinking. Even though these studies possibly have many limitations, and no definite conclusions can be drawn from them, one can be guided by their

implications that the progressive approach does provide for learning as well as, and possibly even better than, the traditional approach.

Individualized study is a favoured instructional approach in many universities and colleges, and much research has been conducted at that level comparing individualized study with other techniques. Himmel (1972) conducted research at the college level to ascertain the effectiveness of a self-directed study program as opposed to the traditional classroom lecture technique in an introductory general psychology course. This research was conducted at Wisconsin State University, La Crosse. One group (the control group) was taught in one classroom by a traditional classroom lecture technique, the other group (the experimental group) carried out self-directed study of essentially the same course contents without the use of any class meetings, lectures or continuing personal contact with a teacher.

It was hypothesized that "the self-directed learning group would score significantly better on several different educational outcome measures than would the more traditionally taught group" (Himmel, 1972, p. 273). The results of the study were as follows:

1. The self-directed group scored significantly higher on achievement than the traditionally taught group.

2. The self-directed group gave statistically significant higher ratings on a Likert-type student-opinion blank than did the traditionally taught group for teaching learning method.

3. The self-directed group gave higher ratings on a Likert-type student-opinion blank than did the traditionally taught group for subject matter content but the difference was not significant.

4. The results of a three month follow-up study showed no statistical difference in mean retention scores for both groups.

5. The results of a twelve month follow-up study showed no statistical differences between both groups.

While discussing the results, Himmel was very cautious in his interpretations. Even though the experimental group did score significantly higher in achievement and attitude toward the teaching learning method, Himmel recognized that the significance was minimal and could have been a result of various extraneous variables. In fact, he indicated that the differences may have been the result of the well-known "Hawthorne Effect." Also, he realized the limitations of his two follow-up studies. While neither follow-up study indicated any significant differences between the two groups, the validity of both studies, however, is somewhat questionable. In the three month follow-up, only 12 students from each group were obtainable, and in the twelve month follow-

up only selected students (the number was not indicated) were studied.

Stuck and Manatt (1970) conducted a study at Iowa State University to determine if concepts of school law could be effectively taught using an individualized instructional approach, to preservice teachers. A class of 219 students was randomly divided into two groups. One group was taught by the traditional method, while another group was subjected to the individualized instructional approach as developed by S. N. Postlethwait. A pretest and posttest were administered to each group and the growth of each group over time was determined. The findings indicated that the individualized study group showed a significantly greater (.01 level of confidence) increase in achievement than did the traditional group.

Another study lending some support to individualized instruction was done by Griffiths (1973) at Memorial University of Newfoundland. This experiment compared the individualized instructional approach with the conventional lecture method in an introductory chemistry course. Students were randomly assigned to two groups of thirty for the purpose of this study. The results of the study suggested that individualized instruction produced a marginally significant gain in achievement. While there was no statistical attempt at measuring attitudes toward the method, a questionnaire was administered at the end of the course. The results of

this questionnaire showed that almost half of the students preferred a lecture course, and evidence from another questionnaire given by the administration indicated that the control group rated both their course and their teacher appreciably more highly than did the experimental group.

Hartnett and Stewart (1966) completed a study which indicated that individualized instruction was superior to the traditional approach. They compared students taking college courses in the traditional fashion and students of equal ability taking the same courses through independent study. Comparison of their performance on a common objective final examination was made in six courses having at least fifteen pairs of matched ability students. The findings revealed significant differences favoring the independent study group in two of the six courses, with the other courses indicating no significant differences between groups.

While these studies quoted above indicated that individualized instruction was superior to the traditional lecture method, there are other studies which indicated no difference, or that the lecture method is superior. Atherton (1972) conducted a study at the University of Illinois to compare the effects of lecture, discussion and independent study on recall of facts, understanding of content, and application of principles. For the purposes of this study, he defined lecture as the method where the teacher selects

and orders the material to be learned and presents it to the students in a formal, oral presentation. Discussion was defined as the activity in which the students and teacher draw upon a common body of material and share insights, opinions, and evaluation. Independent study involved minimal teacher student interaction; the students were given an assignment to carry out on their own, there were no study sessions, no programmed adjuncts, and no study guides.

The results of this study indicated no statistical differences in the effects of the methods on recall, understanding, or application. However, there was support given to face-to-face teaching since twenty-two, of the sample of thirty-seven, dropped out of the independent study group.

Novak (1958) conducted an experimental comparison of student achievement under two different methods of instruction in a general botany course at the University of Minnesota. One method was the conventional approach where students received two, one hour lectures and two, two hour laboratory periods each week. The other method was the project centered method which was similar except the material was presented more rapidly and a six week period was devoted, exclusively, to individual student project work. The two methods were compared as to student changes in (1) knowledge of botanical facts and principles, (2) ability to solve problems in science, (3) gain in scientific attitudes, and (4) retention of factual knowledge. The results showed no signi-

ficant differences in means under the two methods of instruction, with the exception of fact retention which favored the group taught by the conventional method. However, the data suggested that the project-centered approach provided better for individual differences, improved problem solving abilities and led to improved scientific attitudes; those differences were not significant.

McKeachie, Forrin, and Teevan (1960) compared a special tutorial teaching approach with that of the conventional lecture-discussion approach in teaching an introductory psychology course. During the first five or six weeks, the tutorially taught students read an assigned introductory textbook and met in groups of 15 students with an instructor for discussion. Once the prescribed work was done, they could pursue work of their own choice and conduct their own research. The conventional group attended two lectures a week and two hours of discussion.

The results indicated that the conventional method for teaching was superior to the tutorial method in communicating information as measured by a multiple choice examination; however, the tutorial students were more favorable in their ratings of the course. They thought it to be more stimulating and valuable than did the control students.

At the high school level, similar findings to that of college research has been found. Hanneman (1972) experimented with individualized instruction in grade ten geometry.

He compared independent study and the conventional classroom instruction in regard to student performance, pacing, and attitude of students. The self-instruction group were given a statement of general goals, a listing of behavorial objectives, a self-test and suggested learning activities for independent study. They worked independently, or in small groups, and used the teacher as an assistant when they required him. When they felt ready for the test they could take it. If they did poorly they repeated some learning activities. Overall, there was no significant difference between the experimental group and the control group on initial tests; however, when results of retesting were compared, the independent study group had a mean score significantly greater than that of the control group at the .01 level of confidence. The results of a post-experiment questionnaire indicated that forty experimental group students preferred to learn mathematics through independent study with only three individuals expressing a desire to return to conventional classroom instruction.

Another experiment with individualized instruction in the sciences was conducted by Scarpino (1972). The purpose of this experiment was to determine if there existed a significant difference in achievement, attitude, and laboratory skills between an independent study group of grade elevens and a group of grade elevens involved in traditional

study. The results indicated no significant difference in achievement at the .05 level between the two groups. However, a significant difference, in favor of the independent study group, was found in the performance level of achieving criterion on each laboratory objective and in successful accomplishment of a higher percentage of laboratory objectives. Also, the independent study group showed a stronger preference toward independent study than did the traditional group.

Kline (1971) studied the relationship between self-directed grade eight students involved in an open-ended supplementary laboratory block in Earth Science. The students were randomly assigned to two groups, experimental and control. This study continued for four weeks, at the end of which a laboratory test and student questionnaire were administered. No significant differences in achievement or in attitude were found. Kline suggested that no difference was found in interest since all students were motivated by the laboratory block itself and that over 90 percent of all students expressed a positive attitude toward it.

Hug (1970) conducted an experiment in a large high school in Sourthern California. Fifteen classes in high school biology were divided into three experimental groups and a control group. Four hundred and thirty-six students were randomly selected to participate in (1) independent

study, (2) small-group discussion, (3) large-group instruction, or (4) a mixture of independent study, small-group instruction, and large-group instruction. These groups were given pretests and posttests. No significant difference in achievement was found among the groups at 1 percent or 5 percent levels of confidence using analysis of covariance (the pretest was used as the covariate to the posttest). However, a student questionnaire administered at the end of the experiment indicated a substantially higher attitude toward the experiment by students in independent study. Also, several other findings of the questionnaire were particularly revealing; for instance, 85 percent of the students in independent study believed that they learned "more" than in other classes.

Braly (1972) conducted research to determine differences in chemistry resulting from two teaching methods - the traditional method and the individualized technique. The population included four classes of chemistry at the Scottsdale Saguaro High School. The control group was presented materials through a lecture-laboratory method using the teacher's guide and its suggestions for instruction. The experimental group studied independently, free from direct instruction from the teacher; pre-and posttests were given and I. Q. was used as covariant. The results showed no significant difference between the control and the experimental group in chemistry achievement. It was con-

cluded that chemistry can be taught using either the traditional or individualized technique and result in approximately the same amount of achievement. He recommended that achievement does not provide enough information on which to base a decision regarding which method to use.

Taylor (1972) conducted another study comparing individualized study and a traditional lecture-discussion method of instruction. The aim of the study was to ascertain whether independent study produced significantly greater achievement in, and significantly greater positive attitudes toward mathematics. Independent study students studied alone with minimum help from the teachers, they used the conventional textbook and progressed individually by completing necessary assignments and tests. The traditional lecture-discussion class continued as usual, with the teacher presenting new material to the class and leading classroom discussion while students contributed both questions and answers. The findings indicated no significant differences between groups in achievement or in attitude toward mathematics.

These aforementioned studies generally indicated positive results toward individualized study at both the college and high school level. However, upon summarizing the results of these studies, positive conclusions cannot be reached since the results of the various studies indicated that individualized study was superior, inferior, and equal

to the conventional approach in respect to achievement and student attitude.

Research in Social Studies. When one refers particularly to individualized study in the social studies, similar findings are disclosed. Beyer (1975) conducted research in an undergraduate history course. The purpose of this study was to compare the productivity of an individualized instruction technique and the traditional lecture approach. The students involved in the individualized instruction project moved at their own pace using a variety of study resources, while following a written study guide. They were subjected to large-group instruction occasionally. The control group followed the conventional system. Both groups were subjected to pre- and posttests in content and problem solving. Beyer concluded that the experimental group made significantly more gains in content and in problem solving, and that they were more enthusiastic about the instructional technique.

Possien (1965) experimented with individualized instruction at the elementary level. She compared the effectiveness of three teaching methodologies on the development of problem-solving skills of sixth grade children in the area of map study and interpretation. Method A required pupils to solve problems by searching and self-discovery, Method B involved the simple telling of facts and generalizations by the teacher, and Method C was the same as Method

B except that it was accompanied by detailed explanations of the causal relationships underlying the concepts. The investigator taught each of the three classes herself. Possien hypothesized that (1) variations in methodology would not affect statistically significant differences in patterns of problem-solving behavior exhibited by the pupils, and (2) differences in teaching method would not affect differences in achievement.

The three classes involved were not formed for the purpose of the study and therefore differences existed in ability. Tests were given to ascertain the mental age scores in the different groups and to determine the initial performance in map reading skills. There were no statistical differences between the groups on mental age scores, but there were significant differences in initial performance on map reading skills. In order to overcome those differences, an analysis of covariance was computed for initial and final performance. This analysis accepted the second hypothesis, that differences in teaching method would not affect differences in achievement. However, the first hypothesis was rejected since the findings indicated differences significant at the 2 percent level of confidence for ten behaviors pertaining to attitude toward the problem solving process; at the 5 percent level for ten dimensions concerned with the general approach to the problems, and a

marked tendency toward differentiation in the mechanics of attacking the problem and for understanding the ideas contained in the problem. It was also found that these differences were a result of Method A where pupils solved their problems through searching and self-discovery. This latter conclusion was substantiated by interviews done by Possien (1965). She chose six students from each group and matched them on ability levels, initial performance, and mental age. Each of these students was interviewed and asked to think aloud through ten map problems from the map reading section of the Iowa Test of Basic Skills, Form 2. The interviews were tape-recorded and then analyzed by two judges. The students from the group using Method A did better than other students on these interviews.

Another study giving support to the individualized instruction technique was completed by Lodato (1968). He conducted a four year study of an independent study program that was designed for the academically able. The sample included 389 students from five high schools and 151 college students. The school subjects studied independently were English, history, physics, chemistry, and biology. The major hypotheses were as follows: (1) Independent reading groups would show greater gains in school satisfaction, study habits, and library skills. (2) Certain cognitive and affective measures would not be useful in predicting success in independent study. (3) Achievement in areas

other than independently studied areas would differ little from that of control groups. These hypotheses were largely supported. Absences from class had no adverse effects and trends indicated favorable effects of independent study. Students who participated in independent reading programs consistently gained significantly more than students in the control groups in areas such as library skills, study habits and satisfaction with school. The experimental students in social studies programs consistently exceeded their controls in gains and achievement. Finally, significantly more experimental students chose majors in their freshman year in college than did matched controls.

Similar support is given to individualized instruction by the CVAE program (1972) a project developed by the Coordinated Vocational - Academic Education Committee in Edinburg, Texas. This organization developed an individualized instruction program for low-underachievers in grades VIII and IX whose I. Q. were between 70 and 95, who lacked personal goals or self-confidence, had poor communication skills and failed most subjects. Information was gathered through a questionnaire, observational reports, pretests and posttests on academic knowledge, and student attendance and discipline records obtained from school records.

The findings of the CVAE program indicated that involvement in learning activities in the social studies started at 60 percent of the time and went up to 80 percent

of the time. Absenteeism declined in grade eight from 9.1 percent to 8 percent, and in grade nine from 8.8 to 7.8 which was significant at .001 level. Discipline improved in that referrals to the office went down from 28.4 percent to 11.7 percent of the student population (significant at the .05 level). Attitude changes toward school or method were not significant except in the area of science, where individualized instruction students expressed a desire to study under the individualized instructional technique. It was concluded that the program was a large success since students who had a history of passiveness and failure in the classroom became actively involved and began to be successful in their academic endeavors.

While the above research in the social studies indicates positive results in favor of individualized instruction, other studies indicate that no significant differences were found in attitude or achievement.

Alexander (1968) conducted a study to determine if a significant difference in achievement in the social studies existed between a junior high class using independent study and another junior high class following traditional classroom procedures; to identify the factors that contributed to the success or failure of students engaged in independent study; and to determine what effects independent study had on student attitudes, habits, and knowledge of study techniques. Twenty students were assigned to each group and were

matched on achievement. At the conclusion of the study students took final tests of achievement, methods of study technique, and personality. The results were subjected to a t-test to determine if significant differences existed between groups and the coefficient of correlation was calculated to ascertain if significant relationships were present between achievement and personality. No significant differences at the .05 level of confidence existed between the groups on achievement, attitudes, habits, or knowledge of study techniques. The calculation of the coefficient of correlation indicated that there was no single factor that contributed significantly to the success or failure of students who engaged in independent study. Alexander concluded that experience with independent study appeared to improve the individual personal adjustment of students and that the decreased time spent with teachers did not have a detrimental effect upon the students' attitudes, habits, or knowledge of study technique. Finally, he concluded that junior high school students of all levels of achievement can be successful in a program of independent study.

Frogge (1964) completed a study to ascertain the relative effectiveness of the reflective method as compared to the traditional method of teaching the social studies. The reflective method used in the experimental group was an

individualized instructional approach in that students examined issues that were of concern to them and this learning process took place in a democratic atmosphere where students made decisions and solved problems for themselves using the teacher as a guide. The traditional approach, used in the control group, was characterized by an authoritarian teacher who taught materials from a textbook. Frogge tested the effects of the method upon achievement, critical thinking, knowledge of the principles of democracy, and student attitudes toward the course, the method, and the teacher. For the purpose of the study the experimenter taught two classes of high school modern problems - one class using the reflective approach and the other using the traditional approach.

Students in both classes were given pretests and posttests in general social studies achievement, criticial thinking, and knowledge of the principles of democracy. Also, the students' attitudes toward the course, the method, and the teacher were determined at the beginning and at the conclusion of the course. Individual differences in I. Q. socio-economic status, and social studies reading ability were also determined at the beginning and used as control variables in addition to the other pretest results. The data gathered were submitted to analyses of covariance and the findings indicated no significant differences between the two methods in any of the areas studied except for

student attitudes toward the teacher. It was found that the experimental group had more positive attitudes toward the teacher than did the control group. This was significant at the one percent level.

Wilson (1972) had similar findings in a study comparing the effect of three instructional designs on ninth grade geography students' ability to think critically and to increase their knowledge and understanding of the subject matter. The methods compared were small group discussion, peer-teaching and independent study. There were two teachers and six classes involved; each teacher taught three classes, one of each instructional design. Students were subjected to pretests and posttests in critical thinking and achievement. The data were subjected to statistical analysis and the results indicated that neither of the three types of instruction significantly affected thinking or achievement.

Summary

Upon analyzing the research studies comparing individualized instruction with the conventional methods, it was found that (1) nine studies indicated that individualized instruction led to greater achievement, (2) nine studies indicated that individualized instruction and the traditional method did not show statistical differences in levels of achievement, and (3) three studies showed that individualized instruction was inferior to the traditional method in

the area of student achievement. In respect to attitudes, (1) nine studies found that better attitudes existed toward the method or education in general when students were taught through an individualized instructional approach, (2) four studies showed that attitudes were not affected by the method of teaching, and (3) one study, Griffith's study (1973), found that a negative attitude was held toward individualized instruction.

While this analysis offers support for individualized instruction it is not conclusive. While it has been indicated that individualized instruction is compatable with modern learning theories and has been suggested as a worthwhile technique by such a notable Newfoundland educator as Warren (1973), teachers or institutions need more support before it may be implemented on a wide scale. Gruber (1965) argued that, "Before educational policy makers are willing to support radical innovations, they rigidly require evidence that the proposed changes are genuinely worth the trouble that all changes cause" (p. 4). The purpose of this study was to help provide the necessary evidence so that educational policy makers might recognize and evaluate individualized instruction as one possible instructional approach.

Researchers of individualized instruction (Harley, 1972; McKeachie, 1963; Melnick, 1969; Newton, 1972) suggested that studies comparing individualized instruction and the conven-

tional approach should deal with areas of internal growth such as motivation and attitude rather than achievement. Also, they recommended that the instructional approaches should be clearly defined since the discrepant findings that are evident in the research result from poorly defined instructional approaches. Based on these suggestions, the researcher implemented an individualized instructional program in a grade nine social studies class, collected data, and analyzed student attitudes toward it as compared to attitudes of students involved in regular in-class instruction.

CHAPTER III

Methodology

This chapter presents an overview of the procedures employed in this study. It presents the instruments used in the study, the treatment, the sample, the method of data collection, the experimental design, the contextual variables, the statistical procedures, the hypotheses, and a discussion regarding the limitations of the study.

Instrumentation

Text. This study compared two groups of grade nine students regarding their attitudes toward the teaching-learning method employed while using a unit "The War Years, 1939-1945" contained in the grade nine textbook, Canada Since Confederation - An Atlantic Perspective (Howard, Riddoch & Watson, 1976)

The testing instrument. The Dubelle Student Preference Report, Form A and Form B (Dubelle, 1970) was used in the posttest and the delayed posttest respectively (Appendix C). This instrument was designed to measure students' preferences for learning situations. Each Form is composed of 35 questions or statements, each of which is followed by two contrasting alternatives - one predisposed toward independent instruction and the other predisposed towards regular instruction. Content validity of the Student

Preference Report was attested to by a panel of eight professional judges. The Kuder-Richardson 20 formula and 21 formula were used to check reliability. The K-R 20 formula revealed a .80 level of internal consistency and, on the K-R 21 formula, the correlation coefficient was calculated at .83.

The instrument was tested for stability in a test-retest procedure. The Pearson Product - Moment correlation was used to devise the coefficient which was computed at .84, an acceptable stability coefficient.

Fry's Graph for Estimating Readability was used to check the reading level of the instrument and it was estimated to be readable at the grade six level.

This instrument had been used in an experimental situation similar to this study. Scarpino (1972) used the Dubelle Student Preference Report to measure attitudes toward independent study in a comparison of independent study and traditional instruction in eleventh grade chemistry. On the basis of the information regarding validity, reliability, stability, and readability, and considering that it had previously been used in an experimental study, the researcher chose to administer it to measure attitudes toward individualized study in this particular research experiment.

Treatment

In order to control the experimental situation as strictly as possible, the researcher designed detailed outlines for both instructional approaches. The regular in-class approach (Appendix A) was based on information gathered from lengthy discussions with the grade nine history teachers at Ascension Collegiate, Bay Roberts, Newfoundland and research in social studies instruction discussed in chapter one. The individualized instructional approach (Appendix B) was designed on the basis of information gathered from the extensive research literature reviewed by the writer.

Both programs were checked for content validity. They were given to three university professors, three graduate students in the Department of Curriculum and Instruction, and four teachers, who had been involved in teaching grade nine history within the previous two years. Several changes were recommended. Originally, each program was unique with different materials and different questions. It was suggested that this was an intervening variable and that the same materials and questions were to be made available to students of both groups. This change was made along with other minor changes in terminology and the addition of suggested resource materials.

The regular in-class approach emphasized the lecture method of instruction. The activities related to the unit

took place in the classroom setting where all students were subjected to the same activities which emanated from the textbook. The teacher lectured, assigned questions, and corrected these questions in class. Occasionally, this routine was supplemented with audio-visual materials such as filmstrips or films.

The individualized instructional approach emphasized a variety of materials and resources rather than the textbook. The lecture and small group discussion were used, but primarily students worked independently. Most activities took place in the resource center. Students had a large choice of topics and resource materials, and were given the option to work on any topic they desired, provided that it was discussed with the teacher and permission was given. Table 2, which contains a concise outline of the instructional activities planned for both groups provides a clarification of the contrast between the two instructional approaches.

Prior to the beginning of this experiment both groups were given library orientation. Since both groups of students would be referred to the library during their unit studies, and because their library experience was limited, three class periods were devoted to the development of library skills. Orientation was conducted to minimize the influence of library skills on the outcome of the study.

The Sample and Data Collection

The sample for this study consisted of the grade nine students at Ascension Collegiate, Bay Roberts, Newfoundland. At Ascension Collegiate, there were approximately 300 students enrolled in grade nine. Students were assigned to classes according to the program selected. Since the program was not greatly varied at the grade nine level, there were enough students taking the same subjects to allow for random assignment to two groups. This random assignment to groups was completed at the time of registration. This avoided timetabling difficulties and to some degree, the reactive effects of the experiment in that students were not separated from their classmates nor were their timetables disrupted. The two groups were composed randomly from a total of 104 history students. This included all grade nine students enrolled in history with the exception of students registered for general mathematics who were involved in a special program and could not be assigned to other classes. The available students were assigned numbers. These numbers were placed in a receptacle and drawn at random. As these numbers were drawn, students were assigned alternately to each group until two, even groups of 35 were formed; however, because of timetabling difficulties at the beginning of the school year ten students were removed from one group after assignment. Prior to the beginning of the experiment, these groups were randomly assigned to treat-

TABLE 2

A Comparison of the Instructional Approaches

Day	Individualized Study	Regular In-Class Approach
1	Large Group Instruction	In-Class/Introduction
2	Individualized Learning	In-Class/Lecture and Assign Study
3	Individualized Learning	In-Class/Lecture and Assign Study
4	Individualized Learning	In-Class/Assign Questions
5	Small Group Discussion	In-Class/Correct Questions and Assign Study
6	Large Group Discussion	In-Class/Film-Discussion of Film
7	Individualized Learning	In-Class/Lecture and Assign Study
8	Individualized Learning	In-Class/Filmstrips
9	Individualized Learning	In-Class/Assign Seatwork and Homework
10	Small Group Discussion	In-Class/Correct Questions and Assign Study
11	Individualized Learning	In-Class/Lecture and Assign Study
12	Individualized Learning	In-Class/Lecture and Assign Study
13	Individualized Learning	In-Class/Assign Seatwork and Homework
14	Small Group Discussion	In-Class/Correct Questions and Assign Study
15	Large Group Instruction	In-Class/Review Lecture

ments; the group of 25 students became the control group and the group of 35 became the experimental group. For three weeks both groups studied the unit "The War Years 1939-1945" (Howard et al, 1976) which was a part of the regular grade nine history course. The experimental group was subjected to an individualized study approach, while the control group continued as usual with regular in-class instruction.

Immediately after the unit was completed the Dubelle Student Preference Report, Form B was administered to the students of both groups in order to assess their attitude toward the teaching-learning method employed. After four weeks, the equivalent form, Form A of the Dubelle Student Preference Report was administered in order to ascertain if the same attitude prevailed.

Experimental Design

Design 6 (Posttest - Only Control Group Design) as presented by Campbell and Stanley (1973) was used as the design in the study. A representation of that design is as follows:

$$\begin{array}{llll} R & X & O_1 & O_2 \\ \hline R & & O_1 & O_2 \end{array}$$

R represents the random assignment of students to two groups, the experimental group and the control group.

X represents the treatment

O_1 represents the posttest

O_2 represents the delayed posttest that was given after 4 weeks.

This design is particularly strong in internal validity since random assignment to two groups controls the effects of the extraneous variables that could possibly affect the results of the particular study. However, one must be aware of the threat to external validity posed by the Hawthorne Effect, in that the experimental group worked differently than usual, whereas the control group continued to work following the normal routine. Any attitude change in the experimental group might have resulted from this interruption in routine rather than a real change resulting from individualized study. The researcher tried to control this by encouraging the experimental students to believe that, even though the method was unfamiliar to them, it was a routine method of studying a unit in history. However, at no time, were students informed that they were involved in an experimental study.

Contextual Variables

The contextual variables which could not be controlled were the effects of the school and the teachers involved.

Characteristics of the school. The study was conducted at Ascension Collegiate, Bay Roberts which is under the authority of the Avalon North Integrated School Board. The organization of this school has existed since 1964. The

original construction of the school was burned in 1974 and a new building was erected in 1976. This new building has a large functional library-resource center which provided practically ideal conditions for the individualized study approach.

Ascension Collegiate is a central high school serving approximately twenty-one communities between Georgetown and Upper Island Cove. Eight elementary schools, serving these communities send students to Ascension Collegiate. When this study was conducted, there were 750 students enrolled in grades nine, ten, and eleven. Approximately 300 of these were grade nine students. There were thirty-two teachers including the principal, vice-principal and guidance counsellor.

Characteristics of the teachers. Two grade nine teachers at Ascension Collegiate participated in the study. At the time of the study teacher A was aged 34 and had taught for fourteen years. He had two undergraduate degrees, B.A. (Ed) and B.A. majoring in history, and he held a graduate diploma in Educational Administration from Memorial University of Newfoundland.

Teacher B was aged 28 and had taught for seven years. He had two undergraduate degrees from Memorial University of Newfoundland, B.Ed and B.A. majoring in history. This teacher was familiar with the individualized study approach that was administered to the experimental group and there-

fore acted as a teacher organizer and resource person.

Statistical Procedures

In order to determine if there were statistical differences on the posttest and delayed posttest between the attitudes of the students in the individualized group and those in the regular in-class group, a test of statistical significance was required. Since this study dealt with attitudes, the chi square was employed to test the null hypotheses at the .05 level of significance. The chi square is used in situations where a comparison of observed and expected frequencies is required (Ferguson, 1966). In this study, the expected frequencies were that there would be no differences between the attitudes of the control group and those of the experimental group. The observed frequencies were the actual preferences indicated on the tests.

Hypotheses

The following null and alternative hypotheses were tested at the .05 level of significance.

1. There is no significant difference in the proportions between the expected frequency and observed frequency of student attitudes of the individualized study group and the group receiving regular in-class instruction, on the posttest.

There is a significant difference in the proportions between the expected frequency and the observed

frequency of student attitudes of the individualized group and the group receiving regular in-class instruction, on the posttest.

2. There is no significant difference in the proportions between the expected frequency and the observed frequency of student attitudes of the individualized study group and the group receiving regular in-class instruction, on the delayed posttest.

There is a significant difference in the proportions between the expected frequency and observed frequency of student attitudes of the individualized study group and the group receiving regular in-class instruction, on the delayed posttest.

Limitations of the Study

The following must be considered limitations of this study when examining its findings. Possibly, the greatest limitation is that students were unfamiliar with the instructional approach. The researcher endeavored to overcome this problem with a three day orientation; however, this did not overcome the uncertainity that students had regarding their ability to learn independently. Most of the apprehension resulted from the fear of examinations to which students had been conditioned. Since the program had to operate within the confines of the educational system, students were tested on this unit. Indeed, the day that the posttest was given,

it was announced that term examinations in all subjects would be administered the following week. Since students were fearful of their new independence in learning, and considering that term examinations were impending it was apparent that the Hawthorne Effect might have had a negative reaction regarding the experimental students' preferences for individualized instruction.

A second limitation resulted from the organization of the instructional approaches. In accordance with the suggestions for research in this field (Harley, 1972; McKeachie, 1963; Melnick, 1969) both programs were well defined and all materials were made available to both groups to prevent materials and resources from becoming a variable. This might have provided the regular in-class approach with a more systematic plan than usual and made available to the teacher and the students more resources than might otherwise have been provided. Possibly, this influenced the opinions of the control group students toward the instructional approach under which they were studying.

CHAPTER IV

Presentation and Summary of the Findings

This chapter has two specific purposes, the presentation and summary of the findings.

Presentation of the Findings

Since this study consisted of two tests, a posttest and a delayed posttest, which were separately analyzed, the presentation of the findings were divided.

Posttest. Table 3 presents the data that were used in the chi square analysis to test the statistical hypotheses referring to the posttest data.

TABLE 3

Posttest Results

Treatment	Attitude: Group	Attitude: Individualized	Row Total
Individualized Study	29 82.9 58.0 48.3	6 17.1 60.0 10	35 58.3
Regular In-Class	21 84.0 42.0 35.0	4 16.0 40.0 6.7	25 41.7
Column Total	50 83.3	10 16.7	60 100.0

The null and alternate hypotheses that were statistically tested using the posttest data were as follows:

There is no significant difference in the proportions between the expected frequency and the observed frequency of student attitudes of the individualized study group and the group receiving regular in-class instruction, on the posttest.

There is a significant difference in the proportions between the expected frequency and the observed frequency of student attitudes of the individualized study group and the group receiving regular in-class instruction, on the posttest.

These hypotheses were subjected to chi square analysis and chi square was found to be .05486 with 1 degree of freedom. This was not significant and therefore, the null hypothesis was accepted. There was no significant difference in the proportions between the expected frequency and the observed frequency of student attitudes of the individualized study group and the group receiving regular in-class instruction.

Delayed postest. Table 4 presents the data that were used in the chi square analysis to test the statistical hypotheses referring to the delayed posttest data.

TABLE 4

Delayed Posttest Results

Treatment	Attitude Group	Attitude Individualized	Row Total
Individualized Study	28 80 54.9 46.7	7 20.0 77.8 11.8	35 58.3
Regular In-Class	23 92.0 45.1 38.3	2 8.0 22.2 3.3	25 41.7
Column Total	51 85.0	9 15.0	60 100

The null and alternative hypotheses that were statistically tested using the delayed posttest data were as follows:

There is no significant difference in the proportions between the expected frequency and the observed frequency of student attitudes of the individualized study group and the group receiving regular in-class instruction, on the delayed posttest.

There is a significant difference in the proportions between the expected frequency and the observed frequency of student attitudes of the individualized study group and the group receiving regular in-class instruction, on the delayed posttest.

These hypotheses were subjected to chi square analysis and chi square was found to be .84034 with 1 degree of freedom. This was not significant and therefore, the null hypothesis that there was no significant difference in the proportions between the expected frequency and the observed frequency of student attitudes of the individualized study group and the group receiving regular in-class instruction was accepted.

Summary of the Findings

The contingency tables (Tables 3 and 4) revealed pertinent information to the understanding of the results of this study. In order to facilitate the discussion and comprehension of the data, two simplified tables were formulated so that all the data could be carefully identified (Tables 5 and 6). These tables contain four data blocks. They indicate the number of students involved in the study, the number involved in each treatment, and the number of students from each treatment that preferred individualized study or the regular in-class approach.

There were 60 students involved in the study, 35 students were subjected to individualized study and 25 students acted as control and were taught through the regular in-class approach. The results of the posttest indicated that 29 of the individualized study students, or 82.9 percent, indicated a preference for regular in-class work. Only 6 of the

individualized group, or 17.1 percent, indicated an individualized study preference. The regular in-class students indicated similar preferences. The posttest results revealed that 4 students, or 16 percent, preferred individualized study, whereas 21 students, or 84 percent, responded in favor of regular in-class work. A total of 50 students, or 83.3 percent of both groups, preferred the regular in-class approach as opposed to 10 students, or 16.7 percent, who preferred individualized study. There was an overwhelming response for the regular in-class work. With such a remarkable preference for regular in-class work, it might have been expected that an individualized study approach would have a negative influence upon attitudes toward individualized study; therefore, it is noteworthy that students who were exposed to individualized study did not indicate more negative responses toward it than the control group. Moreover, there was a slight indication that more of the experimental group preferred individualized study.

The results of the delayed posttest showed a continuation of the trends indicated on the posttest. Both treatment groups showed a remarked preference for the regular in-class approach and a total of 51 students, or 85 percent, indicated that they preferred it. Only 20 percent of the individualized study group and 8 percent of the regular in-class students preferred individualized study. Similar to

TABLE 5

Posttest Data

Treatment	Identification of the Data	Attitudes		Total
		Group	Individualized	
Individualized Study	Number	29	6	35
	Percentage of Treatment Group	82.9	17.1	
	Percentage of Attitude Category	58	60	
	Percentage of Total	48.3	10	58.3
Regular In-Class Approach	Number	21	4	25
	Percentage of Treatment Group	84	16	
	Percentage of Attitude Category	42	40	
	Percentage of Total	35	6.7	41.7
Total	Number percent	50 83.3	10 16.7	60 100

TABLE 6

Delayed Posttest Data

Treatment	Identification of the Data	Attitudes		Total
		Group	Individualized	
Individualized Study	Number	28	7	35
	Percentage of Treatment Group	80	20	
	Percentage of Attitude Category	54.9	77.8	
	Percentage of Total	46.7	11.8	58.3
Regular In-Class Approach	Number	23	2	25
	Percentage of Treatment Group	92	8	
	Percentage of Attitude Category	45.1	22	
	Percentage of Total	38.3	3.3	41.7
Total	Number Percent	51 85	9 15	60 100

the posttest results, there was no negative reaction toward individualized study as a result of the individualized study program. Indeed, 12 percent more of the individualized study group than the regular in-class group indicated that they preferred it. While this may indicate that the individualized study program, when compared to the regular in-class program, created a more favorable trend toward individualized study, it is not statistically significant and no definite conclusions can be made regarding it. However, it can be concluded that individualized study did not have a negative influence upon students' attitudes toward it since it was statistically shown that there were no significant differences in attitudes between students who were exposed to the individualized study approach and students who received regular in-class instruction.

CHAPTER V

Summary, Discussion, and Recommendations

Summary

The purpose of this study was to determine students' attitudes toward individualized instruction as compared to their attitudes toward regular in-class instruction. The following questions were specifically examined:

1. Is there a significant difference in attitudes between students taught through an individualized study approach and those taught through regular in-class instruction among grade nine students?

2. After a four week period, is there a significant difference in attitudes between students taught through an individualized study approach and those taught through regular in-class instruction among grade nine students?

Two grade nine history classes were randomly selected to serve as experimental and control groups. The experimental group was exposed to individualized study while the control group worked in a regular in-class situation. For three weeks, both groups studied a unit "The War Years, 1939-1945" contained in the grade nine textbook, Canada Since Confederation - An Atlantic Perspective (Howard et al.,

1976). Following the completion of the unit, the Dubelle Student Preference Report, Form B, was administered as a posttest to measure student attitudes. After four weeks had elapsed, the Dubelle Student Preference Report, Form A, was administered as the delayed posttest in order to determine if student attitudes were retained.

The data from both the posttest and the delayed posttest were subjected to chi square analysis and tested at the .05 level of significance. No significant differences in student attitudes were found between the groups and the null hypotheses were accepted. It was concluded that there were no significant differences, on the posttest or delayed posttest, in student attitudes between the individualized study group and the group receiving regular in-class instruction. It was noted, however, that even with a considerably large majority of students favouring the regular in-class approach, the individualized study program did not negatively affect attitudes toward individualized study, and that there might have been an indicated trend for more of the individualized study students than the regular in-class students to prefer individualized study.

Discussion of the Findings

In addition to the statistical findings that there were no differences in attitudes between the individualized group and the regular in-class group, there were other findings that must be noted. Certainly, the indicated trend toward

improved attitudes of the individualized group toward individualized study while not significant, requires consideration. It must be recognized that the individualized program continued for only three weeks. If there is any possibility that this was a real trend resulting from the three week individualized program, a longer period of time might realize significant changes in student attitudes.

While the short time period probably influenced the outcome of the study, the fear of examinations appeared to have affected it also. On the same day that the posttest was administered students were informed that term examinations were scheduled for the following week. Individualized study students who were previously conditioned to the regular in-class approach, where they were provided information by the teacher and tested on that information, may have felt insecure and apprehensive regarding their ability to pass an examination. These anxieties were expressed frequently to the researcher and probably influenced students' choices on the posttest. When the delayed posttest was administered, term examinations were completed but students had not received their grades. Consequently, anxiety from examinations probably continued to influence student attitudes.

Another favorable indication toward the individualized study approach was found in the use of the library materials. The librarian noted that students who participated in the

individualized study program, regularly borrowed materials from the library; whereas, the students in the regular program did not borrow any materials nor even visit the library. Since both groups were exposed to the same materials and encouraged to use library resources, this may mean that students in the individualized study group could have been encouraged to show greater interest in the learning experience. Since a recognized problem at Ascension Collegiate and according to district supervisors, in all schools of the educational district, is low student interest in home studies and library work, this unsolicited finding requires further attention.

The findings of this study were consistent with the majority of studies that dealt with attitudes in the comparison of individualized study and the regular in-class approach. Alexander (1968), Hanneman (1972), Kline (1971), and Taylor (1972) dealt with this particular question and found no significant differences. Beyer (1976) CVAE Coordinated Vocational-Academic Education project (1972), Frogge (1964), Hug (1970) and Scarpino (1971) found no significant differences but recognized a trend in favor of the individualized study approach similar to the indications of the present study. Himmel (1972), Lodato (1968), McKeachie, Forrin and Teevan (1960), and Novak (1958) found that there were significant differences in student attitudes

favoring individualized study. These studies were conducted at the college level or with gifted high school students and continued over a minimum of one semester. These differences in the experimental procedure would probably account for the differences in the findings. Griffiths' (1973) study indicated negative attitudes toward the individualized approach but there was no attempt to statistically study attitudes and no comparison of attitudes was made between the control group and the experimental group; consequently, any attitude change that might have resulted could not be observed.

Recommendations for Further Research

Based on the findings and conclusions of the present study, the researcher submits the following recommendations for further research.

1. This study should be replicated in its present form over a longer period of time and should include achievement as well as attitude.

2. This study should be replicated in its present form with the fear of examinations removed as an intervening variable.

3. A similar study should be conducted to study the effects of individualized study on library and study skills.

4. A similar study should be designed to include grades ten and eleven so that grade, and age can be examined

in relation to attitudes toward individualized study.

5. Another study should be designed where students are grouped on the basis of social studies achievement scores and intelligence so that attitudes toward individualized study can be measured as a function of these factors.

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APPENDIX A: REGULAR IN-CLASS INSTRUCTION

PROGRAM OUTLINE

DAY	ACTIVITY
1	IN-CLASS / INTRODUCTION LECTURE FILM
2	IN-CLASS / LECTURE AND ASSIGN STUDY
3	IN-CLASS / LECTURE AND ASSIGN STUDY
4	IN-CLASS / ASSIGN QUESTIONS - SEATWORK ASSIGN HOMEWORK
5	IN-CLASS / CORRECT QUESTIONS IN CLASS ASSIGN STUDY
6	IN-CLASS / FILM - DISCUSSION OF FILM
7	IN-CLASS / LECTURE AND ASSIGN STUDY
8	IN-CLASS / FILMSTRIPS - DISCUSSION OF FILMSTRIPS
9	IN-CLASS / ASSIGN QUESTIONS - SEATWORK ASSIGN HOMEWORK
10	IN-CLASS / CORRECT QUESTIONS IN CLASS ASSIGN STUDY
11	IN-CLASS / LECTURE AND ASSIGN STUDY
12	IN-CLASS / LECTURE AND ASSIGN STUDY
13	IN-CLASS / ASSIGN QUESTIONS - SEATWORK ASSIGN HOMEWORK
14	IN-CLASS / CORRECT QUESTIONS IN CLASS ASSIGN STUDY
15	IN-CLASS / ORAL QUESTIONING - REVIEW

100 percent of the instructional time is devoted to in-class activities.

CONTENT OUTLINE

I. The Causes of World War II

A. The Rise of Fascism

B. Nationalism

C. Inefficiency of the League of Nations

D. The Arms Race

E. The Psychological Climate Created by World War I

II. The War in Progress

A. The Beginning
(a) Hitler's Aggression
(b) The Policy of Appeasement
(c) Britain Declares War on Germany

B. Axis Domination
(a) Blitzkreig
(b) Dunkirk
(c) Pearl Harbour

C. The Battle of Britain

D. The Battle of the Atlantic

E. The Tide Turns - Allied Success

F. The Atomic Bomb

G. The United Nations and Nato

III. Canada and World War II

A. Canada at War
(a) Declaration of War
(b) Seven Point War Effort
(c) Phoney War
(d) Battle of the Atlantic
(e) Dieppe
(f) Ortona
(g) D-Day

B. Canada at Home
   (a) Mackenzie King
   (b) Conscription
   (c) The War Economy
   (d) The Working Women
   (e) The Japanese in Canada
   (f) Lend-Lease Program Affects Newfoundland

IV. Important Characters of World War II

A. Roosevelt

B. Stalin

C. De Gaulle

D. Churchill

E. Hitler

V. The United Nations Organization

A. Organization of the United Nations

B. United Nations in Action

REGULAR IN-CLASS INSTRUCTION

Any materials listed as additional may be used in the classroom at the teacher's discretion.

Day 1. Introduction. Show a film to introduce the topic and to motivate student interest. The film DUSK, introduces the war and depicts Canadian involvement.

Day 2. Lecture on the causes of World War II. Give students two handouts to study at home. One handout is taken from The War - A Concise History 1939-1945 by Louis L. Snyder. Chapter 1. The other is taken from the filmstrip Fascists Dictatorships.

Day 3. Lecture on the textbook p. 210 - p. 212. Assign these pages for home study. The following topics should be discussed.

(a) Appeasement
(b) Hitler's Aggression
(c) Declaration of War
(d) Allies and Axis Powers
(e) Important Men of the War - Stalin, De Gaulle, Churchill, Hitler, Roosevelt
(f) The Commonwealth Air Training Program

Additional materials should be recommended.

(a) Jackdaw - No. 64, The Coming of the War
- No. 31, Winston Churchill

(b) Filmstrips - Franklin D. Roosevelt
Joseph Stalin
Charles De Gaulle
Winston Churchill
Adolf Hitler
Fascists Dictatorships, Part II
Hitler and the Germans, Part II
The Rise of Hitler

(c) Books - Portraits of Power by S. E. Ayling
The History Makers by Lord Longford and J. Wheeler Bennett
Canadiana. Vol 5 William Lyon Mackensie King.

Day 4. Assign questions for classwork and homework. These questions must be finished the next day.

Questions

1. A. Name the countries on both sides, allies and axis powers, chiefly involved in World War II.

   B. List five general conditions that created the right climate for war and explain how each condition could indeed bring about war.

   C. Describe the actual events leading to World War II and explain how the policy of appeasement followed by the allied countries might have helped bring about such a large scale war.

2. A. Explain why Newfoundland was automatically at war when Britain went to war in 1939.

   B. Explain how Canada could wait and declare war on her own.

   C. Would Newfoundland be able to declare war separately from the rest of Canada if a war were to happen again? Explain.

3. Write a short report on the life and importance of either of these men:
   (a) Roosevelt (b) Stalin (c) De Gaulle
   (d) Churchill (e) Hitler (f) Mackensie King

4. A. Contrast the type of government existing in Germany during World War II with the type of government that we have in Canada today.

   B. Why did people willingly accept this type of government in Germany.

Day 5. Correct the questions from Day 4 in class. The corrected answers should be assigned for home study. Students who answered all questions correctly might be assigned additional materials from the list provided after Day 6.

Day 6. Show the film, Days of Infamy. Emphasize the following topics during the discussion of the film:
(a) Hong Kong Disaster
(b) Pearl Harbour
(c) Japanese Canadians
(d) The Conscription issue - plebecite
(e) The war economy - rationing

Provide a list of additional materials that might be read by students to provide additional information regarding the topics that will be studied for the next five days.

(a) Filmstrips - Classic Drama, Hero VS Villian
- Battle of the North Atlantic
- Hitler at Bay
- Surrender
- The Second World War, part I
- The Second World War, part II

(b) Reading Materials - History of the Second World War by Liddell Hart, chapter 40
- The New Book of Knowledge. Vol. 20 World War II.

Day 7. Lecture on the textbook p. 212 (National Unity) - p. 214 (Conscription), p. 223 and p. 224. Assign these pages for home study. The following topics should be discussed:
(a) Quebec's Union Nationale Government
(b) The Conscription Issue
(c) Cooperation with United States and its effects on Newfoundland
(d) Japanese Canadians
(e) The War Economy
(f) Canada and the War - military.

Day 8. Lecture on Canada and the War. Show two filmstrips Canada and the Second World War, part 1 and part 2. The following topics should be emphasized:
(a) U. S. Aid
(b) Blitzkreig
(c) Dunkirk
(d) Battle of Britain
(e) Battle of the North Atlantic
(f) Hong Kong
(g) Japanese Attack on Pearl Harbour and the Japanese Canadians
(h) Dieppe
(i) Rationing
(j) Working Women
(k) Ortona
(l) D-Day
(m) Conscription

Day 9. Lecture on the textbook p. 216 - p. 218. The following topics should be emphasized:
(a) Reactions to the war
(b) British reasons for fighting
(c) Canadian reasons for declaring war
(d) Canadian Unity
(e) Total Canadian involvement in the war - The seven point war effort. This should be given to students as a handout.
(f) U. S. - Canada relations
(g) Regional disparity

Both the textbook pages and the handout should be assigned for home study.

Day 10. Assign questions for classwork and homework. Questions must be finished for the next day.

Questions:

1. What is meant by Blitzkreig? Explain how this type of warfare enabled the Germans to dominate at the beginning of World War II.

2. A. Describe the events of Dunkirk and tell why it was important to the eventual outcome of World War II.

   B. Explain why Churchill referred to the Battle of Britain as their "finest hour".

3. Analyze the following events with regard to how they led to allied victory.
   (a) German miscalculation of British power after Dunkirk.
   (b) British spirit and German failure of the Battle of Britain.
   (c) The Battle of the North Atlantic
   (d) The German Invasion of Russia
   (e) The Japanese attack on Pearl Harbour
   (f) D-Day

4. A. By 1941, the Canadian Government had a seven point war effort. Name these seven points and assess how valuable each one was to the war effort.

   B. Discuss the importance of the Battle of the North Atlantic. Emphasize Canada's contribution in this Battle.

5. A. What is meant be Conscription?

   B. Why was it believed to be needed in Canada?

   C. Explain why King would not use conscription?

   D. Why did Ralston leave the Cabinet?

6. A. What feelings did the two main groups of Canadians have about going to war in 1939?

   B. By what policies did Prime Minister King seek to keep both groups satisfied?

7. What was the British Commonwealth Air Training Plan? How important do you think it was in bringing about victory for the allies?

8. A. Outline the steps that the Canadian Government took to prevent economic disorder.

   B. Do you feel that evacuation of Japanese Canadians from their homes was justified or was it a case of racial prejudice? Support your answer.

9. Give the purpose of (a) the Permanent Joint Board of Defence; and (b) the Hyde Park Declaration.

10. How was the war financed in Canada?

11. A. Where in Newfoundland did Canada and the United States operate air bases?

    B. What effect did it have on Newfoundland?

12. What part of Canada saw the greatest growth during the war? Why?

Day 11. Correct the questions from Day 10 in class and assign the corrected answers for home study. Students who answered all questions correctly might be given the opportunity to check some of the additional materials listed herein.

Day 12. Lecture on the Atomic Bomb, Hiroshima and Nagasaki. Also lecture on the textbook p. 214 - p. 215. (United Nations and Nato) and p. 227 (U. N. Organization). Assign the textbook pages for home study.
Additional materials should be recommended.
(a) Filmstrip - Hiroshima and Nagasaki
(b) Book - The New Book of Knowledge, Vol. 19, United Nations.

Day 13. Assign questions for classwork and homework. Questions must be finished for the next day.

Questions:

1. If you had lived during World War II and were given the right to vote on whether or not to drop the Atomic bomb on Hiroshima or Nagasaki, how would you have voted? Why?

2. Discuss the following quotations, "War has become outdated because of the very weapons man has developed".

3. A. What Nations formed the following: (a) The United Nations; and (b) Nato?

   B. Identify the chief role of each of the above organizations.

   C. Describe each part of the United Nations Organization.

   D. In the light of the present world conditions, judge how successful the United Nations has been. Support your answer.

Day 14. Correct the questions from Day 13 in class and for a review assign all corrected answers for home study.

Day 15. Summarize the material. Class discussion of the topics could be used during this period. Also a film summarizing the main events of the war could be shown. World War II 1939-41 (part I) and (part II).

Additional materials

1. Dunkirk - Jackdaw
2. Britain at War - Jackdaw
3. Battle of Britain - Jackdaw
4. The War - A Concise History of 1939-1945 by Louis L. Snyder. Photographic highlights.
5. Canada by Edgar McInnis, chapter 20
6. A series of films on Canada

APPENDIX B: STUDENT INDIVIDUALIZED PROGRAM

PROGRAM OUTLINE

DAY	ACTIVITY
1	LARGE GROUP INSTRUCTION
2	INDIVIDUALIZED LEARNING
3	INDIVIDUALIZED LEARNING
4	INDIVIDUALIZED LEARNING
5	SMALL GROUP DISCUSSION
6	LARGE GROUP INSTRUCTION
7	INDIVIDUALIZED LEARNING
8	INDIVIDUALIZED LEARNING
9	INDIVIDUALIZED LEARNING
10	SMALL GROUP DISCUSSION
11	INDIVIDUALIZED LEARNING
12	INDIVIDUALIZED LEARNING
13	INDIVIDUALIZED LEARNING
14	SMALL GROUP DISCUSSION
15	LARGE GROUP INSTRUCTION

Each activity has a particular percentage of time devoted to it. 80 percent is devoted to individualized study, 20 percent to discussion and 20 percent to large group instruction.

CONTENT OUTLINE

I. The Causes of World War II

A. The Rise of Fascism

B. Nationalism

C. Inefficiency of the League of Nations

D. The Arms Race

E. The Psychological Climate Created by World War I

II. The War in Progress

A. The Beginning
(a) Hitler's Aggression
(b) The Policy of Appeasement
(c) Britain Declares War on Germany

B. Axis Domination
(a) Blitzkreig
(b) Dunkirk
(c) Pearl Harbour

C. The Battle of Britain

D. The Battle of the Atlantic

E. The Tide Turns - Allied Success

F. The Atomic Bomb

G. The United Nations and Nato

III. Canada and World War II

A. Canada at War
(a) Declaration of War
(b) Seven Point War Effort
(c) Phoney War
(d) Battle of the Atlantic
(e) Dieppe
(f) Ortona
(g) D-Day

B. Canada at Home
(a) Mackenzie King
(b) Conscription

(c) Rationing
(d) The Working Woman
(e) The Japanese in Canada
(f) Lend-Lease Program Affects Newfoundland

IV. Important Characters of World War II

A. Roosevelt

B. Stalin

C. De Gaulle

D. Churchill

E. Hitler

V. The United Nations Organization

A. Organization of the United States

B. United Nations in Action

STUDENT INDIVIDUALIZED PROGRAM

All students must follow the program outlined below. Any student wishing to do something different (i.e. concentrate on a particular topic) may do so in consultation with the teacher. After each section is completed all students are asked to check with the teacher.

SECTION A

Program

1. Read the textbook, p. 210 - p. 218
2. Read The War - A Concise History 1939-1945 by Louis L. Snyder. Chapter 1.
3. Read The Coming of the War, 1939, Jackdaw No. 64

Questions

1. A. Name the countries on both sides, allies and axis powers, chiefly involved in World War II.

   B. List five general conditions that created the right climate for war and explain how each condition could indeed bring about war.

   C. Describe the actual events leading to World War II and explain how the policy of appeasement followed by the allied countries might have helped bring about such a large scale war.

2. A. Explain why Newfoundland was automatically at war when Britain went to war in 1939.

   B. Explain how Canada could wait and declare war on her own.

   C. Would Newfoundland be able to declare war separately from the rest of Canada if a World War were to happen again? Explain.

SECTION B

Program

Do either 1, 2, or 3.

1. View the following filmstrips and listen to the soundtrack.
   (a) Classic Drama - Hero VS Villian
   (b) Battle of the North Atlantic
   (c) Hitler at Bay
   (d) Surrender

2. View both filmstrips and read commentaries.
   (a) The Second World War, Part I.
   (b) The Second World War, Part II.

3. Read the following materials
   (a) History of the Second World War by Liddell Hart, Chapter 40.
   (b) The New Book of Knowledge. Vol. 20. World War II.

Questions

1. What is meant by Blitzkreig? Explain how this type of warfare enabled the Germans to dominate at the beginning of World War II.

2. A. Describe the events of Dunkirk and tell why it was important to the eventual outcome of World War II.

   B. Explain why Churchill referred to the Battle of Britain as their "finest hour".

3. Analyze the following events with regard to how they led to allied victory.
   (a) German miscalculation of British power after Dunkirk.
   (b) British spirit and German failure of the Battle of Britain.
   (c) The Battle of the North Atlantic.
   (d) The German Invasion of Russia.
   (e) The Japanese attack on Pearl Harbour.
   (f) D-Day

SECTION C

Program

1. View both filmstrips listed below:
   (a) Canada and the Second World War, part I
   (b) Canada and the Second World War, part II.

2. Read the textbook p. 212 - p. 213
   p. 223 - p. 224

3. Read one of the following:
   (a) Canada at War - The Record of a fighting People by Leslie F. Hannon. Chapter 3.
   (b) The Broadsheets from Dieppe - Jackdaw c. 8. and Canada by J. Bartlet Brehner. Chapter 29.

Questions

1, (a) By 1941, the Canadian Government had a seven point war effort. Name these seven points and assess how valuable each one was to the war effort.
(b) Discuss the importance of the Battle of the North Atlantic. Emphasize Canada's contribution in this battle.

2. A. What is meant by Conscription?

   B. Why was it believed to be needed in Canada?

   C. Explain why King would not use conscription?

   D. Why did Ralston leave the cabinet?

3. A. What feelings did the two main groups of Canadians have about going to war in 1939?

   B. By what policies did Prime Minister King seek to keep both groups satisfied?

4. What was the British Commonwealth Air Training plan? How important do you think it was in bringing about victory for the allies?

5. A. Outline the steps that the Canadian government took to prevent economic disorder.

   B. Do you feel that evacuation of Japanese Canadians from their homes was justified or was it a case of racial prejudice? Support your answer.

6. Do you feel that the state should have the right to force people to fight during a world war? Defend your answer.

7. Give the purpose of (a) the Permanent Joint Board of Defence; and (b) the Hyde Park Declaration.

8. How was the war financed in Canada?

9. A. Where in Newfoundland did Canada and the United States operate air bases?

   B. What effect did it have on Newfoundland?

10. What part of Canada saw the greatest growth of industry during the war? Why?

SECTION D

Program

Do ONE of the following: 1, 2, 3, 4, or 5.

1. View ONE of the following filmstrips:
   (a) Franklin D. Roosevelt
   (b) Joseph Stalin
   (c) Charles De Gaulle
   (d) Winston Churchill
   (e) Adolf Hitler

2. Read ONE of the following chapters from Portraits of Power by S. E. Ayling.
   (a) chapter 6
   (b) chapter 7
   (c) chapter 8
   (d) chapter 9
   (e) chapter 16

3. Read ONE of the following chapters from The History Makers by Lord Longford and J. Wheeler Bennett.
   (a) chapter 10
   (b) chapter 13
   (c) chapter 14
   (d) chapter 19
   (e) chapter 20

4. Read Winston Churchill, Jackdaw No. 31
   Read "William Lyon Mackensie King", Canadiana V. 5

Questions

1. Write a short report on the life and importance of these men:
   (a) Roosevelt
   (b) Stalin
   (c) De Gaulle
   (d) Churchill
   (e) Hitler
   (f) Mackensie King

SECTION E

Program

View ONE of the following filmstrips:
(a) Fascists Dictatorships, part II
(b) Hitler and the Germans, part II
(c) The Rise of Hitler (no soundtrack)

Questions

1. A. Contrast the type of government existing in Germany during world war II, with the type of government that we have in Canada today.

   B. Why did people willingly accept this type of government in Germany?

SECTION F

Program

1. View the filmstrip Hiroshima and Nagasaki.

2. Read the textbook, p. 227

3. Read the New Book of Knowledge, Vol. 19, United Nations.

Questions

1. If you had lived during World War II and were given the right to vote on whether or not to drop the atomic bomb on Hiroshima or Nagasaki, how would you have voted? Why?

2. Discuss the following quotation "War has become outdated because of the very weapons man has developed".

3. A. What nations formed the following: (a) The United Nations; and (b) Nato?

   B. Identify the chief role of each of the above organizations.

   C. Describe each part of the United Nations Organization.

   D. In the light of the present world conditions, judge how successful the United Nations has been. Support your answer.

Additional Materials

1. Dunkirk - Jackdaw
2. Britain at War - Jackdaw
3. Battle of Britain - Jackdaw
4. The War - A Concise History 1939 - 1945 by Louis L. Snyder, photographic highlights
5. Canada by Edgar McInnis, chapter 20
6. A series of films on Canada

LARGE GROUP INSTRUCTION

There were three days that the students met in class in a large group.

Day 1. Introduction. Students should be shown a film to introduce the topic and to motivate student interest. The film Dusk, introduces the war and discusses Canadian involvement. Also, briefly discuss leaders of the various nations involved.

Day 6. Show the film, Days of Infamy. Discuss the following topics:

(a) Hong Kong disaster
(b) Pearl Harbour
(c) Japanese Canadians
(d) The Conscription Issue
(e) The War economy - rationing

Day 15. Summarize the material that should have been covered by all students. Show the film World War II 1939 - 1941 (part I) and World War II 1939 - 1941 (Part II). These films provide a good overall picture of the war and provide a good summary.

DISCUSSION GROUPS

There were three days that the students met in discussion groups. There were approximately six students in each group. In these discussion groups, students discussed the topics and the questions for the particular sections they covered. These discussion groups were under the guidance of the teacher. Students were assigned to the groups by the teacher according to the topics that they studied.

APPENDIX C: THE DUBELLE STUDENT PREFERENCE REPORT

STUDENT PREFERENCE REPORT

(FORM A)

Directions: This is not a test. It is a report of your preferences, therefore, there are no right or wrong answers. As the title of this booklet indicates, you will be listing the preferences you have for the 35 items which follow. Please answer every item. Read the statement and the choices carefully and then blacken the space on the answer sheet beneath the letter of the choice which indicates your preference.

Notice how one individual reacted to a question which asked about his preference for two seasons of the year:

A. I prefer Winter to Summer. 
B. I prefer Summer to Winter. 

In this case he may have liked both seasons, but the item was asking for the stronger preference. Since this person has marked Choice B, it means that he likes Summer better than Winter.

On some of the items you will be tempted to answer how you would like your preference to be. Resist this temptation and answer how you know your preference really is. Please begin.

1. In which kind of arrangement do you feel you are able to learn better?

   A. One in which the larger share of the responsibility for my learning rests with the teacher.
   B. One in which the larger share of the responsibility for my learning rests with me.

2. Whenever I get a long-range assignment, I prefer that the teacher:

   A. Give a detailed description of how to complete the assignment.
   B. Give the essentials only and let me use my own methods to complete the assignment.

3. I work better if:

   A. My teacher satisfies my curiosity.
   B. I satisfy my own curiosity.

4. Correspondence courses deal with subjects like the ones you take in school, but you do not have a teacher at hand. You send your assignments through the mail. You have to do the work by yourself. Some students really like the system while others do not. When you have completed the course work you get regular high school credit.

   A. I would rather not take any of my courses by the correspondence method.
   B. I would be eager to take some of my courses by the correspondence method.

Directions for items 5 and 6. Read the paragraph below and then indicate your preference for each item based on your reaction to the paragraph. Continue to mark your answers on the answer sheet.

> Research is a way of doing and finding out things scientifically. Sometimes a person doing research has to work for a long time to find an answer to a problem and there are times when he never finds an answer. The researcher studies and works under conditions that are often uncertain. When he does find an answer to a problem, he usually feels a great deal of satisfaction. As a rule, research takes a large amount of patience and working along.

5. A. Research is for me.
   B. Research is not for me.

6. A. In doing research, I like the idea of working on my own.
   B. In doing research, I do not like the idea of being on my own.

7. I find myself able to get more done when:

   A. I set up a study schedule for myself.
   B. A schedule has been set up for me.

8. Which statement is more like your preference for doing assigned work?

A. I like the teacher to check on me to see that I am doing the work, otherwise, I tend to take it easy.
B. I do not like the teacher to check on me since I work best when not supervised.

9. You have a project to do on your own. It can be of any type. By which method would you like to pick the topic for the project?

A. I would like to have a list of suggested topics from which I pick mine.
B. I prefer to select a topic without the benefit of any suggestions.

10. Which type of setting would you prefer to study in?

A. A room in which several students are studying with me.
B. In a study carrel (a carrel is a nearly soundproof booth in which only one person can study).

11. Practice helps to improve the abilities we have. As a rule, which situation is more to your liking?

A. I prefer to practice with supervision.
B. I prefer to practice without supervision.

12. The idea of learning:

A. In a place in which I am on my own is more to my liking.
B. In a classroom along with my fellow students is more to my liking.

13. Suppose you had available, for your own use, tape recorders, movie projectors, filmstrip projectors, textbooks, reference books and other similar material.

A. With all of that I still would like to have someone present to help me learn.
B. With all of that I would prefer to learn by myself.

14. When it comes to doing my own experiments, I prefer:

A. To see someone else do it first.
B. To do it first and then see someone else do it.

15. When I need a place to study in school, I prefer:

    A. A study room under the supervision of a teacher whom I can ask for help when I need it.
    B. A study room without the supervision of a teacher because I seldom need help.

16. Whenever I get an overnight (short) assignment, I prefer that the teacher:

    A. State the requirements for the assignment and leave the rest up to me.
    B. State the step-by-step way to complete the assignment.

17. I would like it better, if in school:

    A. I was always in the presence of the teacher while I was learning.
    B. I was always away from the teacher while I was learning.

18. Suppose that collecting fossils is one of your favorite hobbies. Which preference better describes you?

    A. I would prefer to be part of a group which was looking for fossils.
    B. I would prefer to look for fossils by myself.

19. When it comes to doing homework, I prefer the teacher to:

    A. Check on me regularly to see if I am doing it.
    B. Never check on me - I'll do it without being checked on.

20. When I have to write a theme or paper, I prefer:

    A. To think about it a while, decide on a topic, and then work on it until it is finished.
    B. To look at other themes for ideas, pattern mine after them, and then work on it until it is finished.

21. The teacher has given you an interesting assignment that you must do by yourself. The assignment can take any form that you like. How would you like to begin?

    A. With some suggested ideas.
    B. With no suggestions at all.

Directions for items 22 and 23. Read the paragraph below and then indicate your preference for each of the paired items based on your reaction to the paragraph. Continue to mark your answers on the answer sheet.

> Suppose you had the chance to do some of your course work in an unusual way. Let us call that way the "contract system". In the contract system you make an agreement with your teacher which states that you will complete a certain amount of school work in a certain amount of time. All the resources of the school, as well as the teacher, will be available to you but no one will be checking on you to see that you are doing your work. At the end of the contract time you will turn in what you have done for the teacher's evaluation.

22. A. I would like to do a lot of my course work by the contract method.
    B. I would like to do a little of my course work by the contract method.

23. A. In the contract system I like the idea of being on my own.
    B. In the contract system I do not like the idea of being on my own.

24. Your teacher has given you a harmless powdery substance. Your job is to learn what it is. Which procedure is more to your liking in a case like this?

    A. The teacher gives me directions and a list of four different powders that it could be.
    B. The teacher gives me directions but no information at all.

Directions for items 25 through 31. In the following paired items blacken the space on the answer sheet for letter A or B according to the choice that suits your preference.

25. A. I would rather make my own analysis of subject information than have the teacher do it for me.
    B. I would rather have the teacher analyze information for me since he has more experience in the subject.

26. A. I would rather work with my teacher, but sometimes I like to work alone.
    B. I would rather work alone, but sometimes I like to work with my teacher.

27. A. I prefer to work for satisfying my personal needs.
    B. I prefer to work for recognition and rewards.

28. A. I would rather work with my classmates, but sometimes I like to work alone.
    B. I would rather work alone, but sometimes I like to work with my classmates.

29. A. As a rule, I prefer to do my homework on my own.
    B. As a rule, I prefer to do my homework by working with another student or two.

30. A. I would rather watch someone else do an experiment first and then try it myself.
    B. I would rather try out an experiment first and then watch someone else do it.

31. A. I prefer the teacher to be a resource person to whom I can go when I need information.
    B. I prefer the teacher to be a person who gives out information at all times.

32. When I have a school project to complete, I prefer to be:

    A. Off by myself working on it.
    B. In the classroom where I can get help when I need it.

33. What is your preference for getting ready for current events discussions?

    A. I prefer to follow the students' discussion in class and contribute my ideas when they fit in.
    B. I prefer to listen to the news myself so that I have some basis for my comments.

34. Whenever a teacher or a writer makes the comment that very little is known about a solution to a particular problem you are studying, what is your general reaction?

    A. Not every problem has an answer.
    B. Even if the teacher and the author do not have an answer, I have an idea.

35. When you are given work to do that can best be done after school hours, how do you prefer to handle the

situation? The teacher is the type who does not believe in "forcing" students to do their assignments.

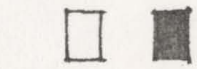
A. To do the work the best way I know how even if the results are not too good.
B. To come to class the next day to see how some other students are doing it and then do the work.

STUDENT PREFERENCE REPORT

(FORM B)

Directions: This is not a test. It is a report of your preferences, therefore, there are no right or wrong answers. As the title of this booklet indicates, you will be listing the preferences you have for the 35 items which follow. Please answer every item. Read the statement and the choices carefully and then blacken the space on the answer sheet beneath the letter of the choice which indicates your preference.

Notice how one individual reacted to a question which asked about his preference for two seasons of the year:

A. I prefer Winter to Summer. 
B. I prefer Summer to Winter.

In this case he may have liked both seasons, but the item was asking for the stronger preference. Since this person has marked Choice B, it means that he likes Summer better than Winter.

On some of the items you will be tempted to answer how you would like your preference to be. Resist this temptation and answer how you know your preference really is. Please begin.

1. The teacher has given you an interesting assignment that you must do by yourself. The assignment can take any form that you like. How would you like to begin?

   A. With no suggestions at all.
   B. With some suggested ideas.

2. Which type of setting would you prefer to study in?

   A. A room in which several students are studying with me.
   B. In a study carrel (a carrel is a nearly soundproof booth in which only one person can study).

3. I find myself able to get more done when:

   A. I set up a study schedule for myself.
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   B. The teacher gives me directions but no information at all.

6. When you are given work to do that can best be done after school hours, how do you prefer to handle the situation? The teacher is the type who does not believe in "forcing" students to do their assignments.

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   A. To see someone else do it first.
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8. When it comes to doing homework, I prefer the teacher to:

   A. Check on me regularly to see if I am doing it.
   B. Never check on me - I'll do it without being checked on.

Directions for items 9 and 10. Read the paragraph below and then indicate your preference for each of the paired items based on your reaction to the paragraph. Continue to mark your answers on the answer sheet.

Suppose you had the chance to do some of your course work in an unusual way. Let us call that way the "contract system". In the contract system you make an agreement with your teacher which states that you will complete a certain amount of school work in a certain amount of time. All the resources of the school, as well as the teacher, will be available to you but no one will be checking on you to see that you are doing your work. At the end of the contract time you will turn in what you have done for the teacher's evaluation.

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    A. I would rather not take any of my courses by the correspondence method.
    B. I would be eager to take some of my courses by the correspondence method.

Directions for items 17 and 18. Read the paragraph below and then indicate your preference for each item based on your reaction to the paragraph. Continue to mark your answers on the answer sheet.

> Research is a way of doing and finding out things scientifically. Sometimes a person doing research has to work for a long time to find an answer to a problem and there are times when he never finds an answer. The researcher studies and works under conditions that are often uncertain. When he does find an answer to a problem, he usually feels a great deal of satisfaction. As a rule, research takes a large amount of patience and working alone.

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    A. State the requirements for the assignment and leave the rest up to me.
    B. State the step-by-step way to complete the assignment.

27. I work better if:

A. I satisfy my own curiosity.
B. My teacher satisfies my curiosity.

28. The idea of learning:

A. In a place in which I am on my own is more to my liking.
B. In a classroom along with my fellow students is more to my liking.

Directions for items 29 through 35. In the following paired items blacken the space on the answer sheet for letter A or B according to the choice that suits your preference.

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B. I would rather try out an experiment first and then watch someone else do it.

30. A. I prefer the teacher to be a resource persons to whom I can go when I need information.
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34. A. I would rather work with my teacher, but sometimes I like to work alone.
B. I would rather work alone, but sometimes I like to work with my teacher.

35. A. I prefer to work for satisfying my personal needs.
B. I prefer to work for recognition and rewards.

APPENDIX D: COPYRIGHT CORRESPONDENCE FOR THE DUBELLE STUDENT PREFERENCE REPORT

P.O. Box 135
Shearstown, Newfoundland
Canada, A0A 3V0
June 23, 1978

Dean of the Graduate School
The Pennsylvania State University
University Park
Pennsylvania 16802, U.S.A.

Dear Sir:

I am presently engaged in writing a thesis for the Masters of Education degree at Memorial University of Newfoundland. The study that I propose to do concerns "Independent Study" and I plan to use the Student Preference Report developed by Stanley Thomas Dubelle, Jr. for his doctoral dissertation done at your university in 1970, "Student Preference Report: An Instrument for Measuring Student Preferences for Independent Learning".

All rights are reserved to this instrument. If you can provide the necessary permission for its use, please do so at your earliest convenience. If it is necessary for me to get permission directly from Dr. Dubelle, please provide me with his address.

A prompt reply to this request would be greatly appreciated. Thank you.

Respectfully yours

Bruce Sheppard

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July 5, 1978

Bruce Sheppard
P.O. Box 135
Shearstown, Newfoundland
Canada, AOA 3VO

Dear Mr. Sheppard:

I have forwarded your request for permission to use Stanley Dubelle, Jr.'s doctoral dissertation instrument to him, since I assume that he holds all rights to that work. The Pennsylvania State University has no exclusive rights to the publication or reproduction of the dissertation in any form. University Microfilms International, Ann Arbor, Michigan, does have exclusive rights to reproduction from and in microform only.

Assuming then that Dr. Dubelle is owner of "All Rights Reserved" in his thesis, he should be the only party necessary to give you the requested permission.

I forwarded your letter to Dr. Dubelle at:

2 Nassau Drive
Flying Hills
Reading, PA 19607

I hope this will aid you in completing your thesis.

Sincerely,

Rob Rager

Rob Rager
Theses and Publications Assistant

EDUCATION CENTER

Governor Mifflin Schools

W. T. SHANNON, Ed.D., Superintendent of Schools
STANLEY T. DUBELLE, JR., Ph.D., Assistant Superintendent

10 South Waverly Street
Box C750
Shillington, Pa. 19607
Telephone 215 775-1461

July 10, 1978

Mr. Bruce Sheppard
P. O. Box 135
Shearstown, Newfoundland
Canada, AOA 3VO

Dear Mr. Sheppard:

I received a letter from Mr. Rager, Theses and Publications Assistant at Penn State, requesting my permission for you to use the Student Preference Report. You have my permission to do so. May I wish you success in completing your master's thesis.

In the event you develop any conclusions that you feel would be of interest to me, I would appreciate receiving them.

Sincerely,

STANLEY T. DUBELLE, JR., Ph.D.
Assistant Superintendent

STD:VB