A COMPARISON OF A LECTURE AND A MODULE ON THE LITERARY DEVICE KNOWN AS POINT OF VIEW

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ABSTRACT

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A COMPARISON OF A LECTURE AND A MODULE ON THE LITERARY DEVICE KNOWN AS POINT OF VIEW.

A comparison was made between one lecture and one module in order to study the comparative effectiveness of the presentation formats. The attitudinal responses to both teaching methods as well as the total completion times were also examined. The subjects were 84 collegial level students enrolled in English 603-216K at Vanier College, St.Laurent, Quebec. A true research design was used. The results yielded no significant differences between the two methods ($p>.05$) and both were proven effective teaching methods ($p<.01$) over the control. Results showed the module to be a preferred method of instruction ($p<.01$) and showed that the subjects were not biased due to the treatment they received ($p>.10$). Students in the modular group completed the work in much less time ($p<.001$) than did the traditional lecture group. As well, both treatments were seen to be equal in difficulty and organization ($p>.01$) from the students' viewpoint.

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THE PROBLEM

Modules provide for active student participation. ... The student is actively involved in manipulating the instructional materials.

Russell, James

Lectures may be stimulating or even inspirational, thereby motivating the student to further study and research.

Umstattd, J.G.

"Lectures were once useful; but now, when all can read, and books are so numerous, lectures are unnecessary. If your attention fails, and you miss part of a lecture, it is lost; you cannot go back as you can upon a book."

Boswell, Life of Johnson

"Many of us can still recall the extraordinary dreariness of so much of the technology to which we were exposed; the boredom, the passivity.

In adapting to new demands, our schools need the benefits of more research on learning."

Lessinger, L.
Every Kid a Winner.

INTRODUCTION

In recent years the momentum for change in education has been steadily increasing and today, in Quebec as well as the rest of the world, partially in response to pressures from the public (which includes government administrators, educators as well as students), the whole framework of educational goals, curriculum, method and evaluation is undergoing constant revision.

In a trend that reflects our contemporary times, the emphasis is shifting from concern with the group norm toward concern for the individual, including his needs, capabilities, attitudes and personal preferences. Though this trend is easily perceptible in education literature since the late nineteenth century it is not equally clear just what form this individualization of teaching and learning should take nor in what context it is most appropriately used. This uncertainty is very clearly seen in Quebec Collegial Education, especially at Vanier College where this investigator is a lecturer in the English and Canadian Studies Programmes. As a result of the Parent Report (1965), a Quebec Collegial System was established and since then colleges have been subject to constant public and government critical study. The Nadeau Report (1975) sharply criticizes the system and advocates a new

'modular' approach to learning which would group teachers, students and services into self-administering 'module units'. As of this writing - a new report, by the once secret Special Study Group (GTX, 1976) is available to the public and promises future changes in the collegial system. The effects of external criticism are felt within a college such as Vanier in which there appear frequent reports, investigations and committees (Wensely, 1974).

As a natural consequence of criticism, there has been a wide-spread questioning of the more traditional teaching methods such as the lecture. Published reports and experiments on the lecture method of instruction are not new and come from sources such as Corey (1934), McKeachie (1963), The Hale Committee on University Teaching Methods (1969), McLeish (1968), Beard (1970), Bligh (1971), Costin (1972), and Gregory (1975).

There has, as well, been a proliferation of 'innovative' student-centered approaches to instruction which have been forwarded as equal to or better than more traditional teaching methods. Amongst these approaches are: Individually Prescribed Instruction (I.P.I.), Bolvin and Lindvall (1960); Programmed Instruction (P.I.), Marble (1966); Personalized System Instruction (P.S.I.), Keller (1967); The Audio-Tutorial Approach, Postlethwait et al. (1970); Learning Centres, Brick (1971); and Modular Instruction (M.I.), Creager and Murray (1971), Goldshmid and Goldschmid

(1972), Shore (1972, Russell (1974); to name just a few. Modular Instruction, is based on the use of modules. A module is an instructional package dealing with a single conceptual unit of subject matter. It is an attempt to individualize learning by enabling the student to learn one unit of content before moving to another. The format is often self-instructional and it is the student who controls the rate and intensity of his study. The length of a module may vary from only a few minutes of student time to several hours. Modules can be used individually or combined in a variety of sequences. (Russell, 1974, p. 5).

Because the restructuring of collegial education in Quebec would involve a completely modularized system of education and because the government intends implementing the GTX Report (1976) for the academic year 1978, it is important to study whether the module is as effective a learning device as the methods presently being used. The most predominant of these methods is the lecture and therefore this thesis will compare the modular method of instruction with the lecture method. In this study the literary device known as point of view will be presented to a sample population of collegial level students in both a module and a lecture format. For the purposes of this study the module is defined as stated above and the lecture is defined, according to Bligh (1972), as an uninterrupted verbal presentation given by one teacher to a group of students.

Problem Statement:

The purpose of this study was to compare two approaches to the teaching of literary point of view. The first method employed was a twenty-five minute highly structured, formal group lecture in which no discussion was permitted. The students were neither encouraged to nor discouraged from taking notes. The result was that students did not know what to look for in the presentation. They remained passive auditors throughout the lecture. Only in the results of the testing, which immediately followed the lecture, did the lecturer obtain factual feedback (as opposed to the visual body hints particularly evident when outside noise levels rose) on the relative effectiveness of her lecture on the student group.

In contrast, the second method employed was Modular Instruction. This group was given a module and informed, orally, that they had up to twenty-five minutes in which to complete this instructional package on their own and anywhere within the confines of the classroom. They were asked to hand in their modules when completed. Their completion time was noted on the booklet. Free discussion and movement amongst the students was permitted and but no questions were to be asked of the instructor.

The module through which the second group worked contained the same statement of objectives and all the information

and questions, in print, which the lecture provided orally. Since the student was in control of the module he could decide when to move ahead, when to study the example, when to answer the questions in the module and whether or not to repeat a section which he had not understood well. This self-pacing was obviously impossible in the teacher-controlled lecture group.

The problem statement then can be formulated as follows: Does the student's active use of a modular learning package result in more effective learning than his auditing the same material in a traditional lecture format? A secondary problem was to examine the attitudinal responses to both teaching methods so as to determine which method students preferred.

These problems are significant in college education. Educators strive towards maximizing the effective learning capabilities of students; thus the problem of whether one method of instruction is more effective than another and/or preferred by students should be examined.

CHAPTER TWO

Review of Related Literature

This review of literature will deal with the lecture and the modular instruction methods in education. Definitions, an overview of origins, the key concepts, several experiments and practical applications as well as critical attitudes will be investigated.

The Lecture:

Learning theories and methods have an ancient heritage which can be traced back to when tribal priests systematized bodies of knowledge and early cultures began to record and reproduce information. According to Saettler (1968) the first instructional technologists were probably the Elder Sophists, men of learning in fifth century B.C. Athens who "analyzed modes of effective instruction and made hypotheses to take into account the factors disclosed by their analyses just as contemporary researchers are doing today." (Saettler, 1968, p. 12).

The sophist assumption was that all men had the potential for intelligent, socially responsible self-rule which could only be achieved through education. They employed expository lectures and group discussion methods but favoured the oral tradition in the belief that rhetoric was the most effective instructional technique for transmitting practical knowledge in a condensed systematic manner. This is the same argument given in favour of the lecture method by much

more recent researchers. (Umstattd, 1964; McLeish, 1968; Costin, 1972; Bligh, 1974; Gregory, 1975). The following certainly echoes the earlier sophist belief:

> As a teaching device, it (lecturing) is undoubtedly the most economical method by which a single individual can present in the context of a personalized and continuous argument a general framework for understanding the fundamentals of a particular subject, emphasizing the key concepts and involving the audience in reflective thought which moves in time with the on-going performance. (McLeish, 1968, p. 1).

It must be noted that the assumption made, that the attention and active participation of the auditor is necessarily engaged, may not be a correct one.

Although the Sophist methods have been considered formal and rigid, the student always knew what was expected of him, how he might achieve his goals and how well he was doing. The influence of Plato and Socrates overthrew the educational success of the Sophists and became the chief influence on Western Education. The Socratic method of instruction aimed to teach by inquiry using give and take conversations guided by leading questions. Plato believed that men were destined for high or low social positions and that education was only for the aristocrats.

Scholasticism, an intellectual movement which flourished in Europe in the twelfth and thirteenth centuries trained students in Aristotelian logical analysis which presented propositions but left the formulation of conclusions to the

students. Although this method was influential on such men as St. Thomas Aquinas many educators of the time were shocked at the idea of permitting students freedom to arrive at their own conclusions and continued in the traditional rhetorical method. (Saettler, 1968).

Thus we see one of the early distinctions between the passivity of the student in a lecture situation as compared to a more active student-centered teaching method.

A strong trend in educational philosophy toward making instruction less abstract and less formalized was evident in the eighteenth and nineteenth centuries. In particular, the writings of realists such as Locke, Rousseau and Pestalozzi who recognized the principles of individual differences and the necessity for methods of instruction suited to the student began to influence educational methods in Western Europe and America. However, educators in general were slow to adopt new techniques. Thus, the lecture has had a long history as the central method of university instruction. It developed and thrived, although never without

> criticism, during the early university period, largely because of the scarcity of books and manuscripts available for student use. ... Instructors ... became famous, not necessarily because of the charm of their manner or the stimulus they provided as teachers but chiefly on account of the valuable subject-matter they had to offer because of the encyclopedic range of their scholarship. Historically, those persons who made reputations as teachers as opposed to

> wells of information have in most cases been "dialeticians" in the best sense of the word-conversationalists, discussion group leaders. They have made their greatest contribution along the line of stimulating others to learning rather than of presenting the fruits of their own learning to be memorized. (Corey, 1934, p. 460).

As McLeish noted the lectures "usefulness for this purpose has been so much taken for granted that it may seem to many to be almost blasphemous to doubt its value." (McLeish, 1968, p. VII). As many critics, including Dr. Johnson (See opening quotation), Corey (1931) and McLeish (1968) pointed out, the modern advances in printing weakened the historical argument for the lecture method.

> Information in permanent form has accumulated so rapidly and is so readily available that university students are no longer dependent upon a faculty for intellectual nourishment in the same sense as they are for stimulation and guidance. Particularly is this true unless it can be shown that student learning is noticeably enhanced by the presentation of information in lecture form as opposed to the same material presented in mimeographed or printed form and read by the student.
>
> If the learning is equal under the two conditions it would seem that the lecture might well receive much less emphasis, thereby serving to release the instructor from this responsibility and making it possible for him to assume others of greater educational significance... to individual students. (Corey, 1934, p. 261).

After World War One student enrolment began to increase bringing into clearer focus the main arguments for and against the lecture method. In favour of it, Corey cites

> the widely accepted Minnesota studies of the effect of class size upon teaching and learning (which) have served to create a more tolerant attitude towards lecturing particularly in large institutions experiencing financial worries. (Corey, 1934, p. 261).

this led to an increase, in the 1930's, of large survey and orientation courses. These large auditorium size classes are still widely used today. Yet, at the same time the argument against the lecture method was becoming stronger. Corey (1934, p. 261) asserted that:

> liberal changes...indicate dissatisfaction with the lecture method. Every increase in extension work by correspondence is a direct implication not only that the lecturer is a superfluity but that teachers in general are not essential for learning. The trend toward reading for honors and tutorial instruction might readily be considered an index of this changing emphasis as indeed might all attempts to adapt teaching to individual students...

This question of the lecture's value as opposed to student's reading and the rise of interest in the individual student led to Corey's 1934 research entitled "Learning from lectures versus learning from reading." Corey questioned the assumptions that 1. lecturers animate the subject matter,

2. that students receive the latest information at a great economy of time and

3. that personal contact between student and teacher is provided. Corey's theory is:

> were an instructor to mimeograph his lectures...he would still be saving student time, his materials might

> still be up to date...(and) might contain...humour... The personal contact between instructor and student which the lecture provides in some degree could be made even more intimate and educational were lecture time devoted to discussions or consultations ... The advantage in the reading method which immediately presents itself is that reading rate can be adapted to the ability of the individual student to comprehend, while the rate at which ideas are dispensed in the lecture is the same for all listeners in the group. Other arguments, such as the permanence of the written record, and the possibility of note-making without oscillation and its attendant risks are also obvious. But these reasons are logical and not empirical, and the real issue which must be decided explicitly before the lecture may be considered justified, is whether students actually learn more from the lecture than they would from identically worded materials in printed form studied for the same length of time. (Corey, 1934, p. 262).

Corey, investigating previous experiments, found that they did not prove the lecture method particularly efficient as an instructional method. He refers to studies comparing lecture and discussion methods which found both methods equally effective in immediate recall and somewhat in favour of discussion for delayed recall. As a basis for his study Corey cites a study by Greene (1928) in which half the 276 subjects received a lecture and half received mimeographed sheets which however, were NOT identical and thus may invalidate the 'no significant difference' results.

In Corey's experiment the lecture was identical to the reading material, the college students were divided into equated groups, equal time was given for both groups and a

test for immediate recall followed by the same test, without warning, two weeks later was given. The test was a semiobjective, true-false and short answer type corrected by the Spearman-Brown prophecy formula. The subjects were not permitted to take notes as Corey felt this would include another complicating variable. Subjects were told that an immediate recall test would be given. The lecture and reading methods were compared with respect to scores on immediate and delay (14 days) recall tests and correlations between immediate and delay tests and standard reading, vocabulary and psychological tests.

Corey discovered that the reading group was superior for immediate recall and that there was no statistical difference for delayed recall although the reading group was slightly favoured. The correlations showed that the reading group had a higher retention of material and that superior students seemed to do better in the reading group but there was almost no compensatory tendency for the inferior students to get more from the lecture. Thus, Corey's conclusions favoured the reading method of instruction.

Birney and McKeachie (1955) surveyed experiments and research on teaching methods. Their findings supported those of previous experimenters. They cite Wolfe (1942) and Longstaff (1932) as reaching the same conclusions they did:

> the experimental evidence submitted to the present time tends to support the

> general conclusion that there is little difference...as to what method of presentation of the materials of the course is used...
>
> The third decade (1950's) of research has not outdated Longstaff's statement. However, recent research does hold forth the promise that in the next decade we will have a better understanding of the effect of various teaching methods on student learning. (Birney and McKeachie, 1955, p. 58).

Guestskow et al (1954) repeated these inconclusive results. McKeachie (1954, p. 145) reacting to the published experiments claimed that a host of other experiments had remained unpublished as they too produced no significant difference results. He suggested a more careful examination of the experimental variables including student attitude and maturity. McKeachie's suggestion is repeated by Buxton (1956) in a review of research literature which studied effectiveness of large class lecturing versus small class or quiz discussion teaching. Once again, the results showed no statistical difference; and again the researcher criticized the experimental methods.

> From studies like these, from the review by Cole (1940) and from other empirical studies by Spense (1928) and Husband (1951) one is forced to draw the conclusion that there is no general superiority or inferiority of the lecture method within the limits of the research procedure used to date. However, it would be unfortunate to overlook some of the characteristics and limitations of these procedures, for an examination of them suggests, not that lecturing is like other teaching techniques in all respects but rather that more definitive research is yet to be done and that we may then expect to find specific and repeatable

> differences among techniques...
> Research on the size-of-class variable ...has shown that size is important only insofar as it allows other variables to have a greater or lesser effect... (Researchers) will need to specify the objectives sought and the means to be used to measure achievement of these objectives. (Buxton, 1956, p. 143).

A similar observation made in the Minnesota Review of the Bureau of Institutional Research (1958) also urges careful examination of the experimental methodology and evaluation procedure. This report indicated that different teaching methods may have produced differential amounts of learning which were masked in the measuring process.

Marr et al. (1960) assessed the value of the lecture method in a course by comparing it to a condition in which four sections of the students received four lectures weekly and four sections met once a week to answer specific questions relating to the assigned readings.

The instructors utilized an analysis of variance design to determine the effects of different instructors, different methods and different levels of students as measured by grade point average on four examinations. Once again the results showed no consistently significant difference other than that students in the lecture course would have preferred less lecture time.

The lecture method has been the subject of more experimental observation in the United States than any other issue in the field of teaching methods in Higher Education,

(Bligh, 1974). Although criticized the lecture method continues to be popular and, as most of the studies have proven, it is as effective and as useful as other methods of instruction. In his book College Teaching: Background, Theory and Practise (1964), J. Umstattd refers to the many supporters of the lecture method and devotes pages to the advantages of the lecture and its place in education. A summary of his main points follows:

Advantages of the Lecture

1. It gives the students information not elsewhere available.
2. It adds voice, gesture, and the teacher's personality to the learning situation.
3. It summarizes, synthesizes, and organizes for the student the content of numerous articles and books.
4. It points out relationships that even the abler student might not sense or, at best, might not fully comprehend until amplified by the lecturer.
5. It leads the student to the integration of his studies with his own experiences.
6. It enables the instructor to correct errors in the literature.
7. It is (or may be) stimulating or even inspirational, thereby motivating the student to further study and research.
8. It provides a proving ground for manuscripts intended for publication - an advantage that may well be questioned. (Umstattd, 1964, p. 173.).

The Place of the Lecture

1. To orient the student to a new field, problem, or topic.
2. To make an assignment covering a long period of work.
3. To prepare the student for assigned readings.
4. To explain a particularly abstruse point.
5. To describe a difficult process or operation.
6. To answer questions raised by the student.
7. To report findings of unpublished research.
8. To review critically a report or a publication.
9. To present a point of view as the basis for later discussion.
10. To argue versus a stated point of view.
11. To differentiate or to resolve conflicting points of view.
12. To summarize and synthesize a course or a body of literature.

(Umstattd, 1964, p. 180.).

Researchers in the United Kingdom also studied the effectiveness of the lecture.

The "Hale Committee on University Teaching" published the opinions of university teachers on the function of lectures. (Hale Report, 1964). According to this report the lectures remained the main vehicle for instruction because teachers felt that the lecture had an "essential function and could

not be replaced by reading combined with discussion." (Hale, 1964, p. 53). This function of the lecture was to awaken critical skills, to demonstrate technique, to inspire students and to economize both student reading and staff time.

The Hale Report (1964, p. 125) felt it their duty to report:

> our two major criticisms of the lecture are that it is not capable of allowing a full discussion of points of interest and, secondly, that all too frequently it is used as a means of communicating information and ideas which are adequately covered in readily available texts...(and that) unless students are encouraged to go and find what they want in books...their immaturity may be perpetuated...they should acquire THEIR INFORMATION BY READING AND OBSERVATION SO FAR AS IT IS PRACTICABLE for them to do so.

An excellent critical review of selected previous work on the effectiveness of the lecture as a teaching method as well as a report of his own sophisticated research experimentation in this field was made by John McLeish (1968). (It is interesting to note that Bligh (1974) makes no mention of the McLeish work.) This work points out that in spite of much criticism "the system of instruction by lectures has continued and indeed, the time students spend in listening to lectures as compared with other methods of instruction has probably increased." (McLeish, 1968, p. VII).

McLeish points not only to student unrest and critical research in England and America but also in India, China, and the USSR as indicative of problems within the education system. His investigation was to cover both affective and cognitive aspects of the educational process, to assess both the long-term and short-term results of teaching, to consider the effects of the lecture series as well as the single lecture.

McLeish's Norwich experiment, based on Joseph Trenaman's discovery that the spoken word generally failed to communicate anything at all after the first fifteen minutes (McLeish, 1968, p. 5) failed supposedly because of difficulty in controlling the experimental procedure. "However,... students listening to an uninterrupted discourse...carry away something of the order of 40 percent of the (lecture) ..." (McLeish, 1968, p. 12).

McLeish's Northern Polytechnic Experiments tested three groups - a motivated reading group, a motivated lecture group and an unmotivated lecture group with the results that the motivation used had virtually no effect on the amount of the material retained. The following result is of extreme interest to this researcher:

> It is also clear that reading the text is more effective than listening to the lecture if, as in this case, equal time is available for the 'readers' as for the 'auditors' ... A difference of nine percent is apparent in favour of reading the text as against listening to the lecture. (McLeish, 1968, p. 14).

The Dubin and Taveggia review (1968) covers ground similar to previous research.

> The post war I period was one in which psychologists gave special emphasis to individual differences and the need for designing educational opportunities to emphasize and realize the differing potentials of individuals. The progressive educational movement had its roots in an empirical philosophy of the individual. It seems obvious that the informal, student-centered instructional methods would be most consistent ... and effective on teaching between world wars.
>
> In the 1950's a similar philosophic movement reached its peak ... a commitment .. (to) group dynamics and a belief that the individual, being the product of group experiences, achieved his maximum self-realization in small group contexts... in sensitivity training and therefore exists the generally held belief that tutorials and small groups are best for college teaching. This was tested with inconclusive results. (Dubin and Taveggia, 1968, p. 2).

These results were very influential. Based on ninety-one studies the experimenters wanted to analytically measure the utility of one college teaching method over another.

> We believe that teaching is a technology, the content of which can be rationally ordered by some distinctive model of the teaching process. Thus, the lecture method assumes the superior knowledge of the lecture and therefore places in his hands the selection of subject matter to be covered the depth of coverage to be employed, the balance between content and illustration, the length of the lecture period, and the frequency of the lectures in a given period of time. The authoritarian image of the lecturer which derives from this model of the lecture teaching technology does not influence in any way the consistency of the conclusions which derive from the assumption of superior knowledge and information on the part of the lecturer.

> By way of contrast, self-study (this usually means a reading list and a limited period of time to complete the reading) limits the superiority of the instructor to a knowledge of the relevant bibliography on his field. Beyond that it is assumed that the student learns through interaction with printed materials. The book rather than the instructor becomes the teacher.
>
> It seems reasonable to assume that given such distinctive teaching technologies as lecture, on the one hand, and self-study, on the other hand, there should be measurable differences in outcomes of these two methods. It is the very reasonableness of such an expectation that leads to the conclusion that there will, indeed, be measurable differences between any two contrasting teaching methods. (Dubin and Taveggia, 1968, p. 2).

However, their results seemed to prove that when the utility of given college teaching methods are measured through final examinations, <u>there are no differences that amount to anything</u>. They felt that this result may be attributed to the dependence on and availability of textbooks which has a powerful impact on instruction. On the other hand, independent study was proven to be as effective as any face-to-face instruction, when measured by student examination performance. The experiment made clear that a great deal of learning could and did reside in the student. At a later date the researchers turned their attention to flaws in the research process to explain the non-conclusive results. It has only recently begin to be asked if perhaps the fault lay in the conceptualization of the problem rather than with the technologies of the research employed. (Dubin and Taveggia, 1968, p. 12).

Bligh emphasized that "the one significant comparison... obtained (by Dubin and Taveggia) was that unsupervised reading is superior to discussion for the acquisition of information." (Bligh, 1974, p. 31). Bligh agreed that lectures may be used appropriately to convey information but felt that lectures alone could not be used effectively to promote thought or to change and develop attitudes.

The purpose of Costin's work (1972) was to describe and evaluate how empirical studies rather than polemics, answered questions about the lecture method. His is an extensive review including not only academic studies but also those conducted in business, industrial and military settings. His main sections, complete with charts and discussion, are lecture versus laboratory, lecture versus discussion, lecture versus student-centered projects, and lecture versus reading and self-instruction. It is this latter section which is of interest to this thesis.

In this section Costin poses the question - "does research support the view that learning through reading is clearly superior to learning through lectures?" (Costin, 1972, p. 15). He presents a table of 12 studies in which the information acquired by students from lectures was compared with that attained by students who simply read the lecture material, or worked through by means of self-instruction procedures.

Costin's conclusions read:

> The findings of these studies, all based

> on short segments of courses, do not reflect consistent differences between the effects of lectures, reading, and self-instruction programmes on student's acquisition of information; this seems to be true whether the knowledge is tested immediately after the end of the learning situation, or later. Certainly one cannot claim any superiority of reading over lectures. Indeed, on the basis of these results one can hardly claim clear-cut superiority of any one method over the others; if any slight advantage exists, it may be in the direction of self-instruction, rather than mere reading. (Costin, 1972, p. 19).

Costin's conclusion based on fifteen studies in which the effects of lectures were compared with those of reading or self-instructional programmes is:

> When reading and study are guided so as to promote active response (as for example, programmed methods and similar procedures attempt to do) they possibly may have an advantage over the traditional lecture method of promoting the acquisition of information; on the other hand, investigations show little if any support for such claims of superiority when reading is unguided.

Once more research failed to disclose consistent differences between the lecture and other methods and so Costin repeats the Dubin and Taveggia conclusion that no measurable differences exist.

Gregory (1975) in his article "A New Look at the Lecture Method" actually offers very little that is new. He emphasizes McLeish (1968) findings that shorter lectures are more effective for factual recall and repeats the polemics of much earlier writing.

Events since the two World Wars such as the advanced technologies of the twentieth century and the ever increasing student numbers in higher education continue to place pressures on educators to examine the efficiency or otherwise of the lecture as well as other teaching methods and to indicate directions necessary for future progress.

Jerome S. Bruner wrote that the increasingly popular use of machines will not replace the teacher but will "aid the teacher in extending the student's range of experience, in helping him to understand the underlying structure of the material he is learning. ... How these aids and devices should be used in concert as a system of aids is, of course, the interesting problem." (Bruner, 1963, p. 84).

Ausubel comments that:

> ... quite apart from whatever intrinsic value they may possess, many educational innovations and movements of the past 3 decades ... owe their origins and popularity to widespread dissatisfaction with the technics of verbal instruction. It is commonly accepted today, for example ... a) that meaningful generalizations cannot be presented or 'given' to the learner but can only be acquired as a product of problem solving activity; and (b) that all attempts to master verbal concepts ... are forms of empty verbalism unless the learner has prior experience within the realities to which these constructs refer. (Ausubel, 1963, p. 15).

Much of this form of thinking led to the concepts of Mastery Learning (Bloom, 1971; Block, 1971; Carroll, 1970) and of systems models (Briggs, 1970). Bloom's mastery learning concept is oriented around the analysis of 'learning tasks' which may be of any size or complexity, which must be stated in testable form and which have no set time limit.

Briggs defines systems models as pre-designed instruction prepared and packaged in advance of class use. Clear instructional objectives tested to insure attainment are integral to this 'model' procedure.

Ausubel believes the Progressive Education Movement to be a natural development of the student-centered approach to instruction which originated with Rousseau. He stated another reason for this movement to be:

> a growing dissatisfaction with the empty formalism of much educational content in the latter part of the nineteenth and twentieth century with stultifying drills and catechism-like methods of teaching, with pupil's rote verbalization and memorization of ideas (Ausubel, 1963, p. 15).

Ausubel criticized reception or rote learning because it does not require independent discovery on the student's part.

R.M. Beard (1970) wrote of the need to redefine the purposes of higher education and course objectives and to relate these with methods in teaching and assessment. Beard advo-

cated the varying of teaching techniques in the belief that recent complaints about education are not all unjustified;

> Colleges in dealing piecemeal with problems arising from rapidly developing colleges, ... have allowed classes to get overcrowded, courses either too specialized or too general and programs of apparently unrelated courses failing to express common principles. Many courses have not developed new teaching methods to deal adequately with larger numbers of students and the new audio-visual techniques tend to remain in the province of relatively few enthusiasts despite their great potential for class and individual teaching. (Beard, 1970, p. 2).

Thus, while the lecture method is seen as a valuable method of instruction, educators point to other methods which require development, application and evaluation.

Modular Instruction

In teaching for adaptation to continuous change students need to be given a considerable measure of responsibility to experience situations

> and problems, individually or in groups to which they have not been told the solution; ... they must learn to depend less on figures of authority and to profit from peer criticisms. Thus, we may expect that in most areas, less time will be given to lecturing. (Beard, 1970, p. 2).

Similar observations on the future of education have been made by many writers. Oseroff (1972) argues that the new language of modern education has key words such as instructional objectives, accountability and instructional modules

which must be clearly understood. The theory behind instructional objectives is the belief that although there may be many moments in life when we learn by accident, the intent of education is purposeful. Therefore it is essential that both the process and the content in an educational program be clearly understood by the learner so that he can relate them meaningfully to his long range goals. Mager's Preparing Instructional Objectives serves as a useful how-to guide to stating the desired outcomes of instruction in behavioural language. In defining instructional objectives a review of the writings of Miller (1961), Mager (1962), and Gagne (1965) indicates that while there is some variability in the number of components in instructional objectives as identified by these writers, the following three components are agreed upon by all:

1. a description of the kind of behaviour which the learner is expected to perform; that is, an action word or verb.

2. a description of the important conditions under which the behaviour will be expected to occur; that is, a context (or signal) for the action.

3. a description of how well the learner must perform to have his behaviour accepted; that is, a criterion for tabulating that the behaviour has occurred.

For the developing of objectives to Bloom's and Krathwohl's (1964) Taxonomies the work of Metfessel et al. (1965) is informative.

To understand the term 'accountability' we refer to Lessinger (1970) whose reaction to and endorsement of the concept of accountability is high:

> In Dec. 1969, for example, the superintendent of schools in San Francisco announced that, in order to pursue a "zero reject" program he was "seeking accountability contracts from publishers who will bid on learning package materials and consultant services with accountability provisions which provide that the publisher will be paid on the basis of the successful student achievement of pre-negotiated standards of performance" with full payment only after.
>
> In January 1970 a new bill presented in California aimed at negotiating performance contracts between school and private educational firms.
>
> In San Diego, Chicago etc. in the 70's the concept reappeared and at the 1970 National Lob for the Advancement of Education (USA) it was the subject of intensive discussion. (Lessinger, 1970, p. 107).

Lessinger feels that because of growing and rightful public demand for accountability, schools must apply methods of educational technology, of research, to their teaching methods and programs and make the results known to the public. He followed his own advice in his publication of the PLAN study (1970) which offers specific statements of goals, objectives and then provides the results of testing. Lessinger feels these components necessary in today's education.

The term module applies to units that comprise a larger entity and is used extensively outside the field of educa-

tion, for example modular furniture, and components of a T.V. set. Even within education there is no uniformity of its use. The term is applied with various meanings such as media units of an instructional program (movie, pamphlet, videotape, audiotape or any other component of the program) a time block of instruction, a large collection of instructional units. No matter how applied, the term module refers to educational attempts to meet the individual needs of students.

The desirability of individual instruction is no longer questioned by anyone. The objections to it are concerned chiefly with the application of the theory to classroom conditions. Among the many partial solutions offered to the problem is that of differentiated requirements or the practise of varying the amount of work to be accomplished (Briggs, 1970; Skinner, 1958; Bruner, 1963; Ausubel, 1963). The teacher is expected to have knowledge of the educational status of the pupils as individuals (not an easily obtained objective) to organize the materials of instruction so as to permit flexibility and to adopt a technique of instruction which will enable her to use a large share of her time in directing work.

The classroom then becomes a workshop in which the instructor is the director and individuals advance at their own rate.

Learning, as Gagné points out, "is an <u>individual</u> act, a set

of events which takes place entirely within the learner ... a highly idiosyncratic event and depends very much on the nature of the learner, particularly his own past learning. (Weisgerber, 1971, p. 25).

The question of how much responsibility the student can take for his own learning is not yet answered. Gagné, however, does offer some hypothetical conditions which might promote student learning:

1. The student needs to learn, as a general principle, that learning takes place inside his head, as a result of his own "thinking" activity.
2. Outlines, indexes, reference lists, and other materials or devices need to be designed for maximum ease and efficiency of employment by the student in finding the stimuli ("learning materials") he needs.
3. Concepts and principles to be learned must be communicated in a manner which is optimally effective. In many instances, this will be done by means of textbooks; and it is not known that these are designed as well as they might be for this purpose. Audio and visual modes of communication also need attention in this respect.
4. Every stage of learning should begin with a statement that makes the objectives of learning clear to the learner. Such a statement probably also needs to remain readily available to the learner throughout a "lesson" or other unit to be learned.
5. A means of appraisal should be provided to the learner which bears a direct and obvious relationship to the objectives of learning. By this means, the learner can check his own performance and obtain immediate feedback.

> 6. Opportunities need to be provided for two activities of importance to the transfer of learning. The first of these is *discussion* of what has been recently learned with other people, whether teachers or students, for the purpose of refining, sharpening, and embellishing the mediational processes that have been acquired. The second is *application* of the acquired knowledge in specific practical situations. (Gleason, 1967, p. 26).

The teacher's responsiblity then involves presenting the stimulus, directing attention, providing guidance and assessing the outcomes of learning.

One of the first attempts to meet such requirement was programmed instruction in which the research of B.F. Skinner in the 1950's was influential.

In 1961 S.N. Postletwait began to develop the audio-tutorial approach which is centered about a self-instructional learning carrell. In 1968 Postlethwait proposed the microcourse, (he later changed the term to minicourse), a small unit of subject matter which could be treated coherently as an individual topic and could be conveniently integrated into conventional courses. The length and content of these microcourses were determined by the objectives. (Russell, 1974, p. 2).

The minicourse concept first implemented at Purdue University in 1969, has rapidly spread throughout educational institutions. Small units of instruction are being developed under

titles such as "unipak", "learning activity packages (LAP)" and "individualized learning packaged (ILP)". Russell claims the generic term for these packages is the module which he defines as:

> an instructional package dealing with a single conceptual unit of subject matter, which may vary from several minutes to several hours and which can be used individually or combined in a variety of sequences.
>
> The multi-media learning experiences are often presented in a self-instructional format. The student controls the rate and intensity of his study. (Russell, 1974, p. 3).

In 1967 a short paper by D.W. Allen claimed that "one important way to facilitate the individualization of instruction is to pre-package modular instructional units requiring a minimum of teacher participation for their use ... (which could range from five minutes in length to perhaps four or six week unit... might be sequential ... remedial ... (and able) to be used independently of total class participation".

The following points, made by Allen (1967) were repeated and elaborated by Witting (1970), Arena (1970), Oseroff (1972), the Goldschmids (1972), Klingstedt (1973), Russell (1974), amongst others.

1. Modules need performance criteria; precise objectives stated in behavioural terms.
2. Some units may be verbal presentations with written materials, others

may require laboratory equipment.

3. They may be completely or only partially self-instructional.

4. They must be self-contained.

5. The process of diagnosis is critical. Most frequently teacher judgement, student self-diagnosis or test scores will initiate the remedial process.

6. Teacher function becomes a monitoring rather than initiating function.

7. The primary responsibility rests with the student.

Witting (1970) offerred the following ten-function process model for modules.

1. Specify objectives.

2. Build criterion test.

3. Build program specifications.

4. Produce module.

5. Test prototype, revise.

6. Try out Product.

7. Field test (revise).

8. Implement.

9. Disseminate.

10. Follow-up.

Haefele's assumptions which support the efficacy of developing and implementing modules are

1. students learn at different rates and in varied ways.

2. students are capable of being self-directed and self-propelling.

3. students can learn independently

(in Weisgerber, 1971, p. 259).

Educational packages such as modules are not new (Saettler, 1968.). The difference is that today packages are more frequent, more comprehensive, more often prepared with care. They involve more techniques and media and are generally easy to obtain. Many articles are published on the uses, definitions and development of these packages; however, few offer statistical (research) data. The McGill Centre for Learning and Development publish many articles on their modular courses and a yearly 'Modular Instruction Evaluation Report' but little, if any, scientific testing is reported. Thus, although a great deal of experimental literature is available on comparisons between the lecture method and many other instructional methods (Bligh, 1974; McLeish, 1968; Dubin and Taveggia, 1968) there is little available comparing the lecture method to the modular method.

One study (Hartnett and Stewart, 1966) matched students in sections of a lecture course to students of equal ability in the same course who were enrolled in independent study programme sections. 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 the groups.

The findings of this study suggest that for certain students, the routine procedure of attending lectures, taking notes and writing tests may not be the most meaningful process of learning. It also appears that high-ability students perform better in independent study work than in the traditional lecture class.

PLAN (a Program for Learning in Accordance with Needs) is a joint effort of the American Institutes for Research, Westinghouse Learning Corporation, and thirteen participating school districts aimed at improving education in grades 1-12.

> The basic building block in PLAN is the module, which includes objectives associated with recommended learning activities and criterion tests. A guidance system uses student data and draws upon a bank of modules available to recommend an individualized program of studies for each student. ... The program is further individualized by providing alternate teaching-learning strategies... (Weisgerber, 1971, p. 54).

The data available is both objective (based on student scores) and subjective. Reliable objectives were validated. Weisgerber's book provides several examples of the modules used, results and charts of data and interesting accounts of the process of learning in PLAN. Most of these articles, particularly Flanagan's, suggest the necessity of future research.

Richason's study (1969) compared results from a traditional lecture course in Geography to results from another section

of the same course taught in a modular Audio-Visual Tutorial method. In this method there was no assigned text-book but reading units were available. All necessary material was in the study carrells. Lab-assistants and the instructor were available for help and discussion. Exams were given every three weeks. The lecture class met for four hours each week. The results, after twelve weeks, favoured the modular approach. Modular students averaged 3 hours 32 minutes in study booths with a 28.75% increase in student scores. The student reaction was also favourable: 48% felt it to be amongst their best course ever and 79% felt this method to be superior to traditional lecture instruction. The fact that less time was spent on the modular work than in the lecture class - with resulting higher grades-is of interest!

Corey, McMichael and Tremont (1970; cited by Goldschmid and Goldschmid, 1972, p. 36) support the Richason findings. They report that "students taking a course using personalized instruction learn more and rate the course higher than students in a traditional lecture course." The Goldschmids cite other experiments which assert the value of modular instruction over the traditional lecture approach.

Goldschmid, B. and Goldschmid, M. (1972) published Modular Instruction in Higher Education: A Review in order to review the principles, implementation, management, formats, problems and research in modular instruction. In defining

the term module, the Goldschmids add that it is a curriculum package intended for self-study. It is auto-tutorial. The purposes of modular-instruction, its advantages for both student and instructor and comparisons between conventional and modular instruction are discussed. A valuable flow-chart of the learner's options in modular instruction as well as diagrams of different module structures are provided. The Goldschmids pay special attention to evaluation procedures and possibilities. According to them, the cost of implementing modular instruction should be carefully evaluated and considered only in the context of improving instruction. They refer to the Corey and McMichael (1970; cited by Goldschmid and Goldschmid, 1972, p. 22) data which support the conclusion that the expense of developing personalized modular courses is justified by better learning, greater retention and favorable student evaluation. According to the Goldschmids, nine steps in designing a module are recommended and these are based on the work of previous writers such as Klingstedt (1971):

1. Identification of the subject matter to be taught.
2. Defining a set of objectives and evaluation items.
3. Deciding upon the hierarchy of the objectives which in turn describes the sequence of instruction.
4. Statement of a rationale.
5. Development of a pre-test.
6. Units of written instruction are designed and study materials chosen to help the student attain the instructional objectives.
7. Providing instructional options.
8. Design of a post-test.
9. Arrangement for a resource centre.

The Goldschmids conclude their review by emphasizing the growing importance of modular instruction in today's education.

The Oseroff (1972) comparison of a modular and a traditional (lecture) approach to the teaching of poetry yields interesting results. Oseroff designed modules for a four week period.

> At the first class session, students received modules for the units, each including statement of purpose, desired outcome, assessment criteria, assessment context, instructions resources, and a sample test item. ... Class sessions using the modular approach consisted of a brief introduction by the instructor followed virtually exclusively by test-taking ... The traditional approach consisted virtually entirely of lectures by the instructor. Brief class discussion was permitted occasionally. ....
>
> The sample consisted of 62 students in 2 randomly selected morning sequences of English 102. ... (Oseroff, 1972, p. V)

Oseroff designed the criterion tests, the pre-tests and the post-tests and analyzed the results with a Multivariate Analysis of Variance.

Unfortunately his thesis does not clearly outline what, if any, controls he placed on his experiment and he seems not to have taken into account the possible advantages or disadvantages of the four week time span employed.

Oseroff's findings follow:

1. Contrary to the hypothesized outcome, the traditional treatment group exceeded the gain in achievement of the modular

treatment group beyond that expected through chance fluctuation. Using multivariate analysis of variance for pre-post poetry achievement stratified by treatment and sex, with the pre-test as covariate, a significant interaction effect was obtained ($F = 10.450$ for treatment, $p < .01$). No significant main effect of sex or interaction effect of sex x treatment was obtained.

2. Each group gained significantly in achievement, at the .05 level. The F statistic obtained for the traditional treatment group was 44.3427 ($p < .001$) and the F statistic obtained for the modular treatment group was 10.77 ($p < .01$)

3. Attitude levels did not change significantly nor differ significantly although there was a slight numerical superiority favoring the modular group.

Oseroff recommends that his study be taken only as an evaluation of the modular approach he designed and that the modular approach should be further studied, particularly when adapted to disciplines which appear more clearly to be hierarchal than junior college poetry instruction.

Oseroff recommends that:

"the modular approach requires the teacher minutely to analyze the subject matter of his particular discipline. ... it should be studied relative to its usefulness for ... night students, who tend to be more mature." (Oseroff, 1972, p. 62).

According to Oseroff a study of the comparative effectiveness

of modular versus lecture instruction should be conducted by an individual with equal, or close, experience in both methods. Oseroff asserts that the results of his own study were definitely influenced by the fact that he had six years of experience in traditional lecture teaching and none in teaching by the modular method. He thus felt himself to be biased in favour of the lecture method. He also felt that his students had been schooled in traditional methods and were more comfortable in the lecture class which is a factor that may have influenced their response to modular instruction.

According to Shore (1973) modular instruction is not an administrative arrangement divorced from pedagogy but an application of pedagogical technology. Adopting Allen's definition of modular instruction, he repeats the Goldschmid's point that if the objectives of the learning cannot be specified then the content is not amenable to modularization. Shore believes that virtually all courses have possible modular components.

The three necessary qualities are:

1. defined educational objectives.
2. suitable pedagogical techniques.
3. the possibilities of not being rigidly tied to a timetable.

Shore's argument consists of three points:

1. there are different kinds of modules.
2. there are different ways to construct new modules.
3. different kinds of modules produced

in different ways can have a variety of effects.

He identifies four kinds of modules:

1. modules based on complete existing courses.
2. modules based on parts of existing courses, called sequential modules by Allen for remedial or enriched work.
3. supplementary course modules which can be make up, remedial or enrichment work.
4. modules on general topics which are not specifically designed for any one course but can be utilized amongst many.

According to Shore there are at least five categories of implications relevant to modular instruction:

1. Whole Course Sequential Modules which are compatible with the existing course system. These are relatively easy and quick to implement and do not change the instructor's responsibility for his course. They do not cost much and have a guarenteed student enrollment. The disadvantages are that modular instruction is course-bound, administration considerations often have priority over student-learning and the opportunity for innovation is narrow.

2. Part-Course Sequential Modules are courses in which not all of the objectives need be stated and in which a greater variety of instructional techniques might be encountered. The disadvantages are that difficult objectives may not be articulated, the existing modules

are very course-bound and the likelihood of fundamental change is low.

3. Supplementary Modules provide remediation or enrichment and are not dependent on existing courses. They provide individualization not readily available in traditional courses. They are generally optional and therefore may be difficult to administer by traditional means.

4. Independent Modules require fewer arbitrary and compromising decisions. They are based entirely on instructional objectives and provide a broad basis for innovation. They are amenable for using performance criteria in the reporting of student progress and permits more highly individualized study programs in smaller units than courses generally allow.

It may be difficult to measure student-contact hours, as well as student utilization of the units and administration could prove more difficult and more expensive than a traditional course. Certainly modular instruction could provide one means for increasing the student-teacher ratio without lowering the quality of education. It can also increase educational services by expanding into the community. Redundancy can be reduced amongst courses and thus both student and faculty time could be saved.

Although Shore outlines both the advantages and disadvantages of modular instruction he emphasizes that the costs may be

high and that educational changes may be difficult to implement in many institutions.

In Modular Instruction: A Guide to the Design, Selection, Utilization and Evaluation of Modular Materials, Russell (1974) details relevant aspects of Modular Instruction. This text is aimed at the classroom teacher who wishes to improve student learning. The rationale for modules is given under the headings: multimedia, individualized, flexible, freedom, active participation, teacher's role (as a diagnostician, prescriber and resource person), student interaction (particularly on complex activities). The fundamental characteristics are listed as:

1. Self-contained, self-instructional packages.
2. Concern for individual differences.
3. Statement of objectives.
4. Association, structure and sequence of knowledge.
5. Utilization of a variety of media.
6. Active participation by the learner.
7. Immediate reinforcement of responses.
8. Mastery evaluation strategy.

Each characteristic is expanded upon and examples are given. According to Russell if students are to develop mastery learning, which requires that students reach a prespecified criterion or level of performance before proceeding to the next module, then teachers must be able to define what is meant by mastery, and they must be able to collect the necessary evidence to establish whether or not a student has achieved it. Russell provides a comparison of conventional lessons with modular instruction which is reproduced in

Appendix III

According to Russell criteria for the evaluation of an existing module's effectiveness need to be followed. He provides several, including cost, clear objectives, validated field-test data, appropriateness, relevance and clarity of content. If existing modules are not applicable Russell recommends designing suitable ones and presents a flow chart which shows the relationship between the components. It is pointed out that designing modules is a dynamic, highly interactive and time-consuming process.

Russell identifies the specifying of objectives as the biggest hurdle in instructional development pointing out the three purposes specific objectives serve:

> For the instructional developer, they are valuable in planning and sequencing the instructional activities, as well as in evaluating their effectiveness. For other teachers, they give insight into the suitability of the module for their students and aid in the design of tests for evaluation of student performance. For the student, they describe exactly what is expected of him and provide him with a goal to be mastered. Hence, the student's learning activities become goal oriented. (Russell, 1974, p. 45).

The other chapters in Russell's very concise and informative book are:

VI. Construction of Criterion Items (guidelines).

VII. Analysis of Learner Characteristics and Specifications of Entry Behavior (to ascertain mastery ability).

VIII. Sequencing of instruction and selection of media (dependent upon the nature of the subject matter and the type of students).

IX. Student tryout of the module (which is tested and revised until most of the students master the objectives).

X. Evaluation of the module (should answer the question 'WHO learns WHAT under WHICH CONDITIONS and IN HOW MUCH TIME?' The effectiveness and/or efficiency of the module is most important).

XI. The utilization of modules (discussed below).

XII. Implementing modular instruction (adapting modules to students, objectives, staff and facilities so as to ensure co-operative and valid learning.)

According to Russell, modules can be used to teach anybody anything and so need not be restricted to academic instruction. He reviews the existing modular biology program at West Lafayette, Indiana which is based on five principles felt essential to good modules by many educators. These are: 1. Make the best use of the instructor's time (being available to the students).

2. Make the best use of the student's time (because he is self-paced the student can repeat information and/or obtain teacher help when he needs it.).

3. Performance objectives are absolutely essential (they eliminate frustration from ambiguity).

4. Students are good teachers (Peer teaching

is an integral part of this system).

5. Mastery of subject matter is necessary (achievement is higher and competition eliminated).

The modular system at Leo High School near Fort Wayne, Indiana is similarly reviewed. This programme has over 700 students from grades 7-12. Each module focuses on one major idea and includes specific objectives which provide the basis for self-paced learning. A great diversity of material, media and methods encouraged greater utilization of the modules and helped ensure their success.

Another school using modules for its total curriculum is Nova High School in Fort Lauderdale, Florida.

Existing and successful modular programs have proven that modular instruction does not eliminate the teacher but frees him from time-consuming explanations and routine presentations. The teacher then has time to provide for the student's individual needs and to inspire further achievement through dynamic and creative education. He creates and maintains interest, serves as a resource person and prescribes alternate or additional pathways when necessary.

According to Russell two types of scheduling patterns are possible with modular instruction.

> One is the completely modularized pattern in which most, if not all, of the instruction is provided in an individualized format. The student...(works) at his own rate and takes the appropriate criterion test

> any time he desires. Another pattern, a more common one, is the partially modularized pattern... the other portion...conventional... The student is expected to take the criterion test with other students at a fixed time. Under NO circumstances should a student be assigned a minimum amount of material to be covered in a single class period. (Russell, 1974, p. 13).

In summary, Russell concludes that even though the focus of modular instruction is on the student, the key component in the success of such a program is the teacher!

The theories of modular instruction seem to dovetail with the Nadeau Report (1975) which advocates a modular approach to learning which would change the existing collegial structure this writer's belief that, as a result of recent reports, modular instruction will become increasingly popular in Quebec. The unofficial Vanier College translation of this document makes available Nadeau recommendations which surely echo the expressed opinions (as have been outlined in this review of literature) of educators who favour the individualized modular approach to instruction.

Some examples of these recommendations follow:

from Introduction:

> 2. That the identification of educational needs be carried out with the responsible and enlightened participation of the student in such a manner so that the responsibility for those needs are assumed by the student.
>
> 3. That the system provide the post-

secondary student with the opportunities to assume responsibilities by treating him as an adult.

from Chapter I: Post secondary training.

4. That the organization of post-secondary teaching offerred by the college permits students to attain the objectives of their programs at different time periods and spans adjusted to their capabilities and pace.

5. That, following the definition of objectives and sub-objectives of the programs, the provincial, regional and local program committees find inspiration in the modern experiences of "made to measure training" ("formation sur mesure") and seek to respond to the needs of the business world by ensuring first, the attainment of the objectives of basic training as defined in the report.

from Chapter III: The Module: An Administrative Unit.

7. That the college be structured on the module, the basic or base unit which administers the program.

8. That the module regroup students registered in the same program, their professors, the representatives of the socio-economic community, and the educational and administrative services.

(Nadeau et al., 1975, p. 30)

The Nadeau Report defines "formation sur measure" as a dynamic of individual and collective development, a self-directed process towards a consciously pursued goal. This process unfolds in seven well-defined stages which once again echo the modular work of Shore (1972), Russell (1974) and the Goldschmids (1972):

1. Identification of the needs.
2. Expression and analysis of the needs.
3. Objectives and types of formation.
4. Content and programming.
5. Organization and Administration.
6. Andragogy.
7. Evaluation.

The Report believes that this process is based on a complete respect for individuals which aims at the satisfaction of real needs requiring full and continuous participation.

Based on the above research and reports, it seems safe to conclude that individualized instruction, particularly modularized instruction, will continue to be studied and utilized in educational institutions.

STUDIES ON STUDENT ATTITUDES

This section of the review of literature is based on studies and reports on student attitudes. Attempts to measure the attitudes of student groups to the lecture method and to individual instruction methods were made by several of the above mentionned writers. Evidence available tends to be highly selective and subjective and thus may be unrepresentative. Interviews or questionnaires may also provide biased points of view.

Koenig and McKeachie (1959) discovered that women high in need for achievement preferred independent study to lectures and found evidence that students who feared failure preferred

familiar, well-structured situations such as lectures.

The Hale Committee (1961) commented on student opinions from the National Union of Students which submitted a memoranda to the University Grants Committee. Several excerpts follow:

> The general tenor of the student memoranda is very similar.. It is highly critical of the lecture. The principal desiderata are fewer and better lectures, closer student-staff relations and more teaching by tutorial and seminar....
>
> ... the lecture is criticized as being out-dated, ... of being a one-way process establishing no contact ... and incapable of stimulating academic discussion of any value ... spoon-feeding.
>
> ... there is recognition of the value of certain types of lecture, e.g. 'to outline the general direction which studies may be expected to take, and to correlate material which has recently been published.
>
> ... lectures should not be compulsory (Hale, 1961, #141,142,144,148).

According to the Hale Committee these same views had been published by the University Grants Committee for the period from 1929-30 to 1935-36. These views were subjected to statistical testing with the following results: only 36% of students who said they wanted some change wanted it in the time spent in lectures, and a third of this minority wanted more lecture time. There was no clear relationship between the percentages of students in any university group who want less time in lectures, and the average time spent in lectures in that group.

McLeish (1968) outlined a score point questionnaire (1964-1966) designed to measure student attitudes towards University teaching methods and to connect these to about forty other variables such as age and sex. The most notable finding is that the lecture is strongly DISFAVOURED by all groups. Conversely, every group expressed a highly favourable attitude to tutorial and seminar methods. High status students disfavoured the lecture more than did low-status students. Their findings support Koenig's and McKeachie's (1959) observations that mature students (particularly women) dislike the lecture method.

McLeish reports the same study as replicated in 1967. The main finding was that undergraduates tended to have little enthusiasm for ANY of the traditional methods, neither favouring nor disfavouring the lecture.

The National Union of Student's Report in 1969 again criticized the lecture method "'The opportunity to grasp basic ideas is hindered by the necessity to take notes' was rated as a major criticism of lecturing by more than 63% of students" (Beard, 1970, p. 2). Analyzing and comparing five groups of higher education students on their reaction to teaching methods, Page (1971) reported some general features and significant points. When asked which teaching method was most efficient, most enjoyable and most experienced students provided the following results which are charted in mean rank order.

METHOD	EFFICIENCY	ENJOYABLE	EXPERIENCE
The Lecture	7	5	1
Small group discussion	2	1	4
The Demonstration	3	3	6
Laboratory Work	1	5 =	5
The Project	4	4	7
Class-teaching	5 =	6	3
The Essay	5 =	7	2

MOST = 1 LEAST = 7

RATINGS OF ENJOYMENT

According to Page these results indicate that laboratory work is the most efficient and the lecture the least. Lectures also receive a low mark under enjoyment possibly because, although students don't want too many lectures, they do enjoy good ones. The writing of essays is quite disliked by all and yet, the lecture and the essay are the two most common methods. Page questions whether the student's dislike for these methods may result from an overdose of them. In another section in which students were allowed free comments the lecture method tended to attract many unfavourable ones and small groups many favourable ones.

Pascal (1971) investigated the effects of offering three instructional options to students (n = 185) - the lecture, lecture with discussion, and independent study. Results indicate that students who received their preferred method of instruction showed a more positive attitude towards the

course's area than did students assigned to non-preferred methods. However, receiving one's preferred option had no significant effect on cognitive outcomes.

In summary Pascal says that if one of the course objectives is to develop independent thinking then students should be exposed to independent study.

As Costin (1972) points out attitudinal outcomes of courses taught under different methods are difficult to interpret. We need more studies which measure the same kinds of affective outcomes within the same kinds of subject matter. So few studies have done this that it is not surprising that such conflicting results have been obtained.

SUMMARY

This review of pertinent literature relating to the comparison between traditional lecture and modular instruction indicates that:

1. Historically, comparisons between the lecture and other instructional methods were being made in early times.
2. In the research of the 1920's, 1930's, 1940's and 1950's, the predominant result of experimentation showed no statistical difference between teaching methods. Some favouring of reading versus lectures did appear.
3. Early researchers questioned the controls placed on most

of the experiments.

4. Learning is found to reside in the student.
5. Independent study is found to be as effective as any face-to-face instruction when measured by student exam performance.
6. Unsupervised reading is superior to discussion for the acquisition of information.
7. Increased student numbers and advanced technological progress urge re-examination of teaching methods.
8. A growing public demand for accountability and clearly defined objectives exists.
9. The development and utilization of modular instruction becomes influential in educational institutions in the late 1960's.
10. More statistical information comparing the lecture and modular methods of instruction is needed.
11. Several studies such as Richason's (1969) comparing the modular and lecture methods found results favourable to the modular sections of courses because
    a) student attitudes favour modular courses
    b) less time is spent on modular work with an increase in student scores.
12. The expense of developing Modular Instruction is justified by better learning, greater retention and favourable student evaluation (Corey and McMichael, 1970).
13. Research between modular and traditional lecture courses should be conducted by persons with equal experience in

both methods so as to account for bias.

14. Many advantages such as adaptability and flexibility exist for students, instructors and administrators in modular instruction.
15. Modules can be used to teach anybody, anything.
16. Modular instruction is now being successfully employed in several courses in many institutions.
17. Educational reports in Quebec favour a modular approach to instruction.
18. Studies on student attitudes show that students prefer courses such as modular ones to lecture courses which they feel are too frequent and rarely enjoyable.

CHAPTER THREE

Methodology

Hypotheses

Statement of the hypotheses.

The objective of this study is to test the following hypothesis.

1. It is expected that the scores of the modular treatment group will exceed those of the traditional lecture group on the measure of achievement beyond that expected through chance fluctuations; and that scores for both treatment groups will exceed those for the control group.
2. It is expected that the modular treatment group will respond more positively on the measure of attitude than the traditional lecture group.
3. It is expected that the modular treatment group will complete the module in less time than the lecture group.

Rationale for Hypotheses

Logical justification for hypotheses can be drawn from a variety of theoretical formulations. Haefele (1971, p. 259) supports the efficacy of developing and implementing instructional modules because:

1. students learn at different rates and in varied ways;
2. students are capable of being self-directed and self-propelling:
3. students can learn independently.

Corey (1934) states that reading and lecture listening may be similar functionally but that the advantage in reading is that students can adapt the reading rate to their own ability. The importance of being able to individualize learning can scarcely be overlooked. Rogers (1951), Bruner (1960), Flanagan (1971) and others stress increasing individualized learning.

Beard (1970, p. 155) cites Stavert and Wingate (1966) and Teather (1968) for empirical justification to support his theory that self-study programmes (modules) are at least as effective as teaching of the same content by an expert teacher (lecture) and that it takes as little as two thirds of the time for average students to cover the same ground. The findings of Richason (1969) supports this theory.

According to Beard (1970) a number of experiments have shown that a viable individualized programme need not consist merely of a succession of short Skinner-type 'frames' but that a continuous, carefully planned text would prove very effective. Modular programme research (Weisgerber, 1971) conducted in several American schools confirm this.

Hypothesis one is supported by the studies on work decrement

during the lecture period. The assimilation of lecture materials by the student occurs in the following pattern:

> There is a short initial 'warming-up' period which lasts perhaps five or more minutes: efficiency is then at a maximum. There follows a decline in student and lecturer efficiency which continues over a long period to produce a deep trough. This probably reaches its lowest point after approximately forty minutes. Both lecturer and student then begin slowly to find their way back ... (McLeish, 1968, p. 36).

Modular instruction may be more efficient in that:

> The students spend as much time as necessary to master the topic.... Instruction can be at the student's convenience and at the time of day when the student learns 'best'. Modules provide greater freedom for students to adjust study-time and subject matter content to individual needs... (Russell, 1974, p. 27).

Hypothesis two is supported by several research studies which have shown that students prefer individualized instruction methods to the lecture method, (Pascal, 1971; Marr et al, 1960) would prefer far less time spent in lectures and were critical of lecturing as being an out-dated method (Hale, 1961). Questionnaires designed to measure student attitudes towards instruction found the lecture method strongly disfavoured by all groups (McLeish, 1968; Koenig and McKeachie, 1959). Although ranked as least efficient the lecture method was found to be most frequent (Page, 1971).

Hypothesis three is supported by the studies made by Beard (1970), Stavert and Wingate (1966), Teather (1968) and Richason (1969). The finding of these studies is that self-study reading and modular programmes are at least as effective as teaching of the same content through the lecture method and that it takes students far less time to cover the same ground

Operational Definitions of Variables

Modular Instruction: A module is an instructional package dealing with a single conceptual unit of subject matter, point of view.

Traditional Lecture Instruction: The traditional lecture is an uninterrupted verbal presentation by the instructor. It involves a single teacher teaching a group of students numbering 28, exclusively by verbal exposition. Communication is one way from teacher to student.

Attitude: A tendency to respond either positively or negatively to the presentation. It represents a stimulus discrimination in which things are put into categories related to the person's goals.

Achievement: Achievement is measured in terms of scores on an immediate post test.

Operational Restatement of Hypotheses

The hypotheses are operationally restated in the following predictions:

1. When identical content (material) is given to one group in a traditional lecture format and to another group in modular format, the modular format group will obtain higher achievement scores on an immediate post test.
2. When identical content (material) is given to one group in a traditional lecture format and to another group in modular format, the modular format group will show a more positive attitude to the presentation on an attitudinal questionnaire.
3. The modular treatment group will complete the same task in less time than will the traditional lecture group.

Population and Sample

The population selected for this study consisted of College students between the ages of 17 and 20. The subjects were enrolled in first and second year collegial studies in one of four required 'core' English courses. The choice of students at this level reflects the current need for further research at the collegial level (Nadeau, 1975).

The sample was comprised of 84 students enrolled in To See Ourselves, English 603-216K, in which the experimenter is the instructor - Evelyn Vatch. This course is offered at Vanier College, Ville St-Laurent. The advantage this course

offers the experimenter is that three sections are scheduled at the same time, in very similar adjoining rooms.

A random selection of 28 students was made for each of three groups. Participation in the experiment was required and students were permitted to randomly sign in to a total of 28 students for any of the three sections. The experiment was conducted during class time. This course is particularly suitable for experimental purposes. The students are accustomed to both modular and lecture presentation formats. The students are accustomed to the use of teaching assistants and thus found nothing unusual in the experiment while it was being conducted.

Two groups received the same instructions, the same content and the same post test. The lecture group audited the content in a lecture given by Evelyn Vatch whereas the module group read the content on their own. The third group, the control group, did not experience the content. Instead, a colleague, Professor Arnold Greenberg, conducted a class totally unrelated to the content. In order to provide test norms, the control group was given part I of the post test.

Teaching assistants were employed to follow instructions in the module group; to distribute and to supervise the collection of the tests. As completed work was submitted, completion time was marked on each test. Teaching assistants were asked to note any disturbances or peculiar actions exhibited by the groups.

Instructional Materials

A special twenty-five minute audio presentation and an instructional module both entitled 'Point of View' were developed and used in this study.

The module, typed and printed by Vanier College, was distributed to each student in the module group. This module was the same text as the oral lecture with only the word 'module' exchanged for the word 'lecture' throughout. No other change in the text was made. This control is considered essential in a study comparing lecture and self-instruction Corey (1934) and Costin (1972). No additional information or explication was presented to either the module or the lecture group.

The control group audited a totally unrelated lecture.

Selection of Subject Matter

An instructional unit on point of view was selected as the experimental subject matter based on the following criteria:

SUITABILITY

In order to carry out the experiment, the topic chosen had to be appropriate to the course content. The concept of point of view is a suitable one to study in a college literature course (Purves, 1971).

RELEVANCY

The experimental subjects were first and second year college students enrolled in one of four (4) required 'core' English courses. Literature courses aim at teaching knowledge (recognition and recall of literary facts and theories) and application (which demands that the student match some concept that he has already acquired with the phenomena that he is considering). The Curriculum in English, grades 7-12 of the Oregon Curriculum Study Centre (1965)

> urges that students learn to look at 'subject', 'form', and 'point of view' in every work they read, and that they learn to describe these in great depth and with greater detail as they proceed through the curriculum.... Many of the other program English curriculum centres set as their goal patterns not unlike that of Oregon....
> (Purves, 1971, p. 713).

The Vanier College English Department has a similar goal; however, upon random questioning of Vanier students, the experimenter felt that student knowledge of such an important literary theory as point of view, was minimal. It was therefore decided to prepare a unit on point of view which would be both interesting and informative to the target population.

Originality

Aspects of literary theory are generally covered in an

introductory fashion in earlier grades. It was thus felt necessary that an early definition of point of view be provided so as to prompt recall. The unit then worked towards an advanced level of comprehension and application. Background theory was based on the work of Norman Friedman (1955). All examples are original and it is certain that none of the subjects were ever exposed to this particular presentation of point of view.

Feasibility

There were no hampering restrictions placed on this study. The examiner, being the course instructor, had access to necessary typing and printing facilities as well as to the necessary rooms and teaching assistants. The kind assistance of fellow instructors was readily available.

Preparation of Instructional Materials

The instructional unit was developed according to the principles of instructional product design (Briggs, 1970) and in keeping with modular format (Russell, 1974). Instructional objectives (Gagne, 1965; Mager, 1962) were written for the information domain. Content was hierarchically ordered. The instructional unit was designed so as to achieve the following objectives:

1. Within the questionnaire, the student will be able to identify the point of view found in each of six (6) selections.

2. Within the questionnaire the student will be able to identify the characteristic feature of each of the points of view detailed in the 25 minute presentation.

3. Within the questionnaire the student will be able to identify the point of view which is best suited to a particular type of story.

4. Within the questionnaire the student will be able to identify the correct definition of point of view.

The unit was read and commented on by subject matter experts in literature at the collegial level. Recommended alterations and clarifications were made. The unit was then approved by the same experts.

Tryout of Instructional Materials

The instructional unit was lectured to several communications experts at both Vanier and Marianopolis College, Montreal who commented on the style and pace of the oral presentation. A pilot study was carried out prior to the experiment on samples of the target population who did not take part in the final study so as to determine whether the material was suitable in terms of clarity, time and difficulty for the majority of students and to determine the

reliability and the validity of the post test. Twenty-five Vanier College students were used as subjects.

As a result of the pilot test two rarely-used types of point of view were removed from the unit because they proved either too difficult or too confusing. This also shortened the presentation time.

Criterion Test

Data consisted of scores on items on a criterion test (See Appendix 11) administered immediately after each presentation. The test was based on the content of the instructional unit (whether auditory or modular). The questions were determined according to the degree of emphasis assigned to certain points (Purves, 1971).

Content validity was assured by selecting all test questions directly from the unit of instruction. In addition, content was verified by four subject matter experts as well as by two communications experts.

The dependent variable in this study was learning. The instructional objectives fall within the cognitive domain and are classified as knowledge (Bloom, 1956). Items were constructed so as to test the subjects' memory of and ability to apply knowledge which was presented.

Section II of this test, the attitudinal questions, was based on the questionnaires of McLeish (1968) and Page (1971).

Research Design

A true research design (Tuckman, 1972) is used,

where:

level one	RXO_1	X, treatment, is the module
level two	RYO_2	Y, treatment, is the lecture
	RCO_3	C, treatment, is the control.

Means and standard deviations of scores for each group are calculated in part one. Part two of the test provided summated scores.

Variables

Independent - There is one discrete independent variable - instructional method, with two levels: the modular versus the traditional lecture approach.

Dependent - The dependent variable is learning as measured by achievement scores in an immediate post test.

Control - (1) the total time span of the experiment,
(2) the same content is used,
(3) the same, or nearly the same, physical conditions, such as lighting, are maintained,

(4) the same instructions for completion of the post test,

(5) the same time of day for all 3 sections of the experiment,

(6) none of the groups aware of the experimental nature of the class.

Testing Procedures

Study Setting

This study was designed to assess the comparative effectiveness of traditional and modular instruction. In order to control environmental variables, all treatment groups were exposed to the stimulus materials under very similar conditions.

Testing took place on Wednesday, February 25, 1976 in three regularly assigned classrooms in the same wing and on the same side of the hallway. One group listened to a 25 minute lecture. One group read through the same material in a module. One group listened to a totally unrelated lecture.

Although conditions were almost the same for each class, extraneous noise (a garbage truck) made it necessary for the lecturer to raise her voice in an attempt to be heard. Students were noticed to fidget about during the noise. This noise did not seem to disturb the module group which continued to read. This group, not restrained by the assistants

in movement or talking, were noted to do very little of either after first settling down in a comfortable spot or position.

Presentation

The investigator gave a similar short verbal introduction to both groups. The module group, which first heard the introduction, were then monitored by an assistant who distributed and later clocked and collected the completed modules. This procedure was quite normal and fully accepted by the group. Thus, the investigator was able to give the short verbal introduction only minutes later to the lecture group and to conduct the lecture. The instructions, which were as similar as possible in order to reduce the possibility of any variable occuring from the use of different test administrations follows.

Oral Instructions: Module Group

"The module being distributed will introduce you to the literary device known as point of view. Point of view is the perspective from which a story is told. Read the module carefully. After 25 minutes a short questionnaire will be handed out. This is not a test; however, you are expected to complete it to the best of your ability. You will have 25 minutes to respond. No further instructions will be

given. Save any questions about the purpose of this questionnaire or about the module until after everyone has completed it. Begin immediately."

Oral Instructions: Lecture Group

"The lecture you are about to hear will introduce you to the literary device known as point of view. Point of view is the perspective from which a story is told. Listen carefully. At the end of this lecture a short questionnaire will be handed out. This is not a test; however, you are expected to complete it to the best of your ability. You will have 25 minutes to respond. Please do not interrupt the lecture. Save any questions about the purpose of this questionnaire or about the lecture until after everyone has completed it. We begin immediately."

Oral Instructions: The Control Group

The control group, following their lecture were read these instructions by the lecturer:

"The questionnaire being distributed is not a test. It deals with the literary device known as point of view. Point of view is the perspective from which a story is told. Please complete it to the best of your ability. Save any questions about the purpose of this questionnaire until after everyone has completed it. Please begin immediately."

Test Scoring

All tests were hand scored by the instructor and checked by an assistant so as to verify scoring procedures. Questions on part one of the test were either short answer or multiple-choice and only one answer was accepted as correct. Each correct answer was awarded one point. Wrong, missed or doubtful answers were scored as zero. A total score for each student was recorded.

Questions on part two of the test were attitudinal. Students in the lecture and module groups were asked to circle the response, from 1-5, which most closely indicated their attitude.

A Likert scale was used to register the extent of agreement or disagreement with a particular statement of a given attitude, belief or judgement. Data was collected by summating the scores of each item. Missed or doubtful answers were scored as zero.

CHAPTER FOUR

Results

Computer facilities at both Concordia University, Sir George Williams campus, and at Vanier College, Ste. Croix campus as well as a hand calculator were used for statistical analysis of data.

Hypothesis 1

It is expected that the scores of the modular treatment group will exceed those of the traditional lecture group on the measure of achievement beyond that expected through chance fluctuations; and that scores for both treatment groups will exceed those for the control group.

A one way analysis of variance was used to determine whether differential effects were being produced by the samples. (Table 2) Examination of the results show a significant difference ($p<.01$), indicating that the three groups are not estimates of a common population mean.

TABLE 1

Group	N	Mean	S.D.
Lecture	28	10.250	2.250
Module	28	11.000	2.596
Control	28	7.607	2.459
Total	84	9.619	2.819

PERFORMANCE CHART OF THREE GROUPS

Table 1 shows that the mean achievement score for the module group is higher than both the lecture and control groups.

TABLE 2

Source	DF	SS	MS	F	P
Between	2	177.881	88.940	14.949	<.01
Within	81	481.929	5.950		
Total	83	659.810			

ANALYSIS OF VARIANCE OF ACHIEVEMENT SCORES FOR MODULE, LECTURE AND CONTROL GROUPS.

Table 2 shows that the 3 groups are not estimates of a common population mean.

TABLE 3

Comparison	F	D.F.	P
lecture and module	1.94	2,53	>.05
lecture and control	24.21	2,53	<.01
module and control	39.90	2,53	<.01

SCHEFFE TEST ON ACHIEVEMENT MEANS OF THREE GROUPS

Table 3 shows that both the module and the lecture were superior to the control but that there is no significant difference between the two treatment groups.

A Scheffé test was performed to see if any two comparisons were significantly different. (Table 3). It can be seen that both the module and the lecture were superior to the control but that there is no significant difference in the amount learned between the two treatment groups.

Hypothesis 2

It is expected that the modular treatment group will respond more positively on the measure of attitude than the traditional lecture group.

A chi-square was used to determine whether the preferences reported for question 10 (which learning method would you prefer for this subject matter?) were based on chance variation alone. (Table 4). Since the value for x^2 is greater than that required for significance we may conclude that there is a differential preference. Now, which method is preferred?

The results in the lecture group were as follows: 39.2% prefer the modular method of instruction for this lecture, whereas only 21.4% prefer the lecture method. Other scores were: 17.8% prefer a seminar, 7.1% prefer a tutorial, 7.1% prefer some other method such as an audio-visual presentation and 7.1% prefer receiving the lecture notes as a reading assignment.

The results in the module group showed that 35.7% prefer the

modular method of instruction whereas 32.1% prefer the lecture. Other scores were: 21% prefer the seminar, 7.1% prefer the tutorial and 3.6% prefer some other method such as an audio-visual presentation. It therefore seemed that the module was a preferred method of instruction. A chi-square was performed to see if this preference was related to treatment received. (Table 5).

The results show that the subjects who chose each answer, in each group, were not biased due to the kind of treatment they received. The subjects who received the lecture did not like the lecture method any more or less because of the fact that they were given a lecture. The same principle is true in the modular treatment group. It is therefore shown that the modular method of instruction is much preferred by the lecture group and also preferred by the module group.

Attitudinal question 11 asked students if the presentation had encouraged them to further investigation of the subject matter. The results for the lecture group show that 64.2% will do further investigation and 32.1% will do nothing.

The results for the module group show that 60.7% will do further investigation and 35.7% will do nothing. A chi-square was performed to see if these results were based on chance variation only. (Table 6). Results show that there is no significant differences from chance variation.

TABLE 4

Group	N	DF	CHISQ	P
Lecture	28	32	59.38	<.01
Module	28	32	70.98	<.01

CHI-SQUARE ON PREFERENCE

BASIS OF QUESTION #10

Table 4 shows that there is a differential preference between modular instruction and traditional lecture instruction.

TABLE 5

Group	Lecture	Module	
Module Group	32.1	35.7	(67.8)
Lecture Group	21.4	39.2	(60.6)
	(53.5)	(74.9)	128.4

$n = 56$, $x^2 = 1.04$, $df = 1$, $p < .10$

CHI-SQUARE ON ATTITUDINAL QUESTION #10

Table 5 shows that the subjects were not biased due to the kind of treatment they received.

TABLE 6

Group	More	Less	
Module Group	60.7	35.7	(96.4)
Lecture Group	64.2	32.1	(96.3)
	(124.9)	(67.8)	192.7

$n = 56$, $x^2 = 2.44$, $df = 1$, $p > .10$

CHI-SQUARE ON QUESTION #11

Table 6 shows that there is no significant difference from chance variation alone.

TABLE 7

	LECTURE MEANS	MODULE MEANS
1. The objective of this presentation was to explain and differentiate the major types of point of view. To what extent was this achieved.	2.32	2.39
2. How would you rate the information which was included in the presentation?	3.21	2.85
3. There was the right amount of information provided in the time available?.	3.14	2.39
4. I found this presentation interesting and stimulating.	3.25	3.14
5. The presentation was clearly organized and to the point.	2.57	1.92
6. The presentation helped clarify the literary technique known as point of view.	2.28	2.10
7. The presentation was at the level of the class.	2.53	2.39
8. Ideas and concepts were developed at the right pace.	3.14	2.60
9. I would rate the general quality of the presentation as excellent.	3.21	2.60

Lecture Grand Mean 2.85

Module Grand Mean 2.49

SUMMATED SCORES OF ATTITUDINAL QUESTIONS #1-9.

Questions 1 to 9 of the questionnaire, part II were scored on a Likert scale from 1-5. Scores were summated and means (Table 7) showed that the students felt both module and lecture to be of equal difficulty, of equal interest and organization and quality and that the time provided was adequate. The means showed a slight tendency in favor of the module presentation. Thus, a t-test of independent means, based on the grand means, was made. (Table 8). No significant difference was found; therefore, the treatments were equivalent from the point of view of the students.

Hypothesis 3

It is expected that the modular treatment group will complete the module in less time than the lecture group.

A t-test was used to determine whether the completion times of both groups were significantly (Table 9) different. A log-10 transformation was used to normalize the raw time data for the calculation. As Table 9 indicates, the module group completed the lesson in less time ($p<.001$) than the lecture group.

TABLE 8

Group	Module	Lecture
N	28	28
EX	628	719
x^2	394384	516961
$\bar{x}$	22.4	25.67

n = 56, t = .005, df = 54, p>.10 (NS)

T-Test Of

Independent Grand Means

Questions #1-9

Table 8 shows the treatment to be equal from the student point of view.

TABLE 9

Group	Module	Lecture
N	28	28
$\bar{x}$	33	46 minutes
S.D.	4.338	3.641 minutes

n = 56, T = 12.21, df = 54, p<.001 (significant)

N.B. A log transformation was used to normalise raw time data.

T-Test Of Mean Time For Completion Of Work

Table 9 shows that the module group completed the work in less time than the lecture group.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS, RECOMMENDATIONS, SUMMARY

DISCUSSION AND CONCLUSIONS

This experiment was conducted to study the comparative effectiveness of a lecture and a module on the literary device known as point of view. The only experimentally manipulated variable was the presentation format; namely, a twenty-five minute lecture and a module containing identical content to that audited in the lecture. A secondary problem was to examine the attitudinal responses to both teaching methods so as to determine which method students preferred.

The discussions and conclusions which follow are organized under a re-examination of the original hypothesis in the light of experimental results.

In general, measures of performance indicate that both the module and the traditional lecture were effective teaching devices and that there are no significant differences between the two methods as studied in this experiment. Trends in the descriptive data, however, favour the modular method. Measures on attitude support the conclusion that the modular method of instruction is preferred by students. Finally, the modular treatment group completed the work in significantly less time.

Hypothesis 1

> It is expected that the scores of the modular treatment group will exceed those of the traditional lecture group on the measure of achievement beyond that expected through chance fluctuations, and that scores for both treatment groups will exceed those for the control group

The results do not confirm hypothesis one. Although the mean achievement score for the module group is higher than both the lecture and control group means, the statistical computations show that there is no significant difference in the amount learned between the module and lecture groups. Hypothesis 1 must therefore be rejected. This is consistent with the findings of Corey (1934), Birney and McKeachie (1955), Buxton (1956), Marr et al. (1960), Dubin and Taveggia (1968), Page (1971), Oseroff (1972), and Costin (1972). There is some evidence (the descriptive data on means and students' attitudes) that modular instruction has slight advantages but, in general, the economy of teaching by lecture does not seem to be gained at the expense of acquiring knowledge.

The particular experimental materials and controls utilized in this study and the limitations of the experimental situation may have diluted potential advantages of modular instruction. In this study, the only difference between the module and the lecture was the mode of presentation to the student. This was the case in order to maintain control on irrelevant variables as well as to verify Corey's

(1934) study in which he tested his seemingly logical hypothesis that if one group of students receives information in lecture form and a second receives this material in printed form, and "if learning is equal under the two conditions it would seem that the lecture may well receive much less emphasis..." (Corey, 1934, p. 15.) Corey's results showed the reading group superior in immediate recall. Although the performance means in this study appear to support Corey's results, the group differences are not statistically significant.

It is possible that a more flexible module, based on the same content but not textually identical to the lecture might produce significant differences in achievement. The studies of Birney and McKeachie (1955) similarly suggest a need for further research on similar but not identical units.

The strategy of utilizing one lecture and one module was recommended by McLeish (1968) who stated a need for research studying the effect of the single lecture versus one other method of instruction. The McLeish study, based on the fact that "students listening to an uninterrupted discourse... carry away something of the order of 40% of the lecture" (McLeish, 1968, p. 12), tested a motivated reading group, a motivated lecture group and an unmotivated lecture group with the result that reading was more effective than listening.

Some slight advantage in self-instruction or reading "when reading and study are guided so as to promote active response..." is reported by Costin (1972, p. 15). Costin feels however that, according to the studies he presents, a lack of clear empirical evidence exists and he stresses the need for more research on guided reading.

It has been proven that the lesson on point of view, presented in either modular or lecture format, was an effective teaching tool. The control group scores arose as expected, either from previous knowledge or from guessing.

The criterion test was proven an effective tool. The use of behavioral objectives and clear specifications which preceded the test construction were useful.

Hypothesis 2

> It is expected that the modular treatment group will respond more positively on the measure of attitude than the traditional lecture group.

Results of Question 10: "Which learning method would you prefer for this subject matter?" show that the module is a much preferred method of instruction.

This result is consistent with the studies made by Goldschmid and Goldschmid (1972), McLeish(1968), Hale Committee (1961) and Richason (1969). According to Page (1971) students who receive their preferred methods of instruction show a more positive attitude but do not do better on

cognitive outcome. However, if students can be matched to their preferred method of instruction, a more positive attitude to their work may eventually result in improved grades.

Thus, hypothesis 2, as applied to this question, is confirmed; however, no one statement can be made in support of this hypothesis as the attitudinal section of the posttest contains eleven questions.

Results of question 11 which asked if the presentation had encouraged further investigation of the subject matter showed that the subjects, particularly those in the lecture group, were stimulated to further investigation.

Results of questions 1-9 (see Appendix II) show that the subjects felt both module and lecture to be of approximately the same difficulty, of the same interest and organization and quality and that the time provided was adequate. The finding of no significant difference between the two treatments from the viewpoint of the subjects is important. The experiment was controlled so as to assure equal treatments and the subjects' responses further verify the controls utilized.

A study of the descriptive data of questions 1-9 (Table 7) show slight group mean differences which favour modular instruction.

The self-pacing aspect of modular instruction seems preferable from the students' viewpoint. Those in the lecture group, although they performed as well as the modular group, indicated a need for more time to incorporate the ideas presented.

Subjects in the module group indicated, to a higher degree, that the objectives of the presentation were achieved than did the lecture group; yet, both received identical content. It is possible that the material seems better presented and objectives seem better achieved in modular instruction. Russell (1974) confirms this.

Results of question 5 show that 80% of the module group felt that the module was very clearly organized and very much to the point; whereas, only 46% of the lecture group felt the same about the same material. The module group also rated the module higher as a teaching device . It is possible that because the module is in print format it appears (or is) clearer and better organized than the teacher's presentation (which is another important variable).

Hypothesis 3

> It is expected that the modular treatment group will complete the module in less time than allotted to the lecture group.

Results support hypothesis 3 showing that subjects in the module group completed the module significantly faster than

than did subjects in the lecture group. This is consistent with Richason's study (1969) in which students in a modular section completed the module in much less time (3 hours 32 minutes) as compared to the traditional lecture group (4 hours). As noted earlier, the lecture group indicated a need for even more time in which to complete the work.

The many advantages of spending less time on a module than on an equal lecture, with no resulting decrease in knowledge gain, are apparent. Students in several studies have specifically stated a preference for less time spent in lecture halls (Marr et al., 1960; the Hale Committee, 1961; McLeish, 1968 and Page, 1971). The use of modular instruction can either decrease amount of study time or increase amount of material to be learnt in a given time span.

RECOMMENDATION FOR FURTHER RESEARCH

Extant research does not provide conclusive evidence of the instructional effectiveness of the modular instruction method over other instructional methods. The results of this study demonstrate the need for further research into the area of modular instruction.

This research may examine the use of modules at different age levels so as to determine at which level the use of modules will provide optimal effect.

The present study was confined to a one module versus one lecture format containing identical material so as to provide controls; however, further research should examine the use of lengthier modules as compared to a series of lectures. As well, the use of modules as compared to other instructional methods merits further study.

Modules which are not identical in format to the lectures being compared but which incorporate the same material must be designed and evaluated. These modules should incorporate techniques particular to modular instruction.

Attitudinal outcomes of courses taught under different methods have been especially difficult to interpret. More replications of studies of student characteristics that lead to different responses to varied teaching methods should be made so that students can be identified who learn best by various methods. Students should then be matched to their

preferred method of instruction and evaluated on the results. It is equally important to study teaching styles so as to match the teacher to the technique which best suits him. The teacher's personal approach to instruction is a variable which needs to be considered in interpreting the relative effectiveness in methods. For example, some teachers because of their personality characteristics, academic background, and other experiences, may actually prefer to lecture and would find other teaching methods hampering.

Other variables which should be explored are the effects of class size (student numbers) on modular instruction, the possibility of not adhering to set class times in modular instruction and the cost effectiveness of modular instruction as compared with the lecture and other instructional methods. Modules, because they can be portable and can be employed to provide continuous learning experiences for students who miss instruction, should be further studied for use with hospitalized, or confined students, or for correspondence courses.

In sum, the many possibilities and flexibility of modular instruction warrants further study.

SUMMARY

This study was concerned with the presentation of information on point of view in both lecture and module formats.

The questions investigated were:

1. When identical content (material) is given to one group in a traditional lecture format and to another group in modular format, which group will obtain higher achievement scores on an immediate posttest?
2. When identical content (material) is given to one group in a traditional lecture format and to another group in modular format which group will show a more positive attitude to the presentation on an attitudinal questionnaire?
3. Will the modular group complete the same task in less time than will the traditional lecture group?

The study was conducted at the Collegial level. A review of related literature revealed advantages and disadvantages for both modular and lecture presentations of information. Empirical research indicated that while modular instruction is an effective teaching method, it is no more effective than is the traditional lecture method. There are trends in the descriptive data which tend to favour modular instruction. Empirical research also showed that the modular method of instruction was preferred by students and that this method took students significantly less time to cover the same material than did students in the traditional lecture format.

The subjects were 84 collegial level students enrolled in To See Ourselves, English 603-216K at Vanier College,

St.Laurent, Quebec. Students were randomly assigned to one of three treatment groups.

A presentation on the literary device known as point of view was chosen as the experimental subject matter based upon the criteria of suitability, relevancy, originality and feasibility. The specially prepared 25 minute presentation was presented orally to the traditional lecture group and in a printed format to the modular group. The only experimentally manipulated variable was the presentation format. A control group was exposed to an unrelated class discussion.

The dependent variable was cognitive learning. Data consisted of scores on a criterion test administered immediately after each experimental and control section. The test for the two experimental sections was divided into two parts. In Part 1, student comprehension of the presentation was measured. The questions were selected directly from the instructional material. In Part 2, questions were used to measure students' attitudinal responses to the presentation. This part of the test was not given to the control group.

A pilot study was carried out prior to the experiment on samples of the target population who did not take part in the final study so as to determine the reliability and validity of the test, and to determine whether the instructional materials were suitable in terms of time and difficulty for the majority of subjects. As well, teachers of

English and Communications at the Collegial level were asked to comment on the materials. Suggested modifications were made.

Experimentation was conducted during the normally scheduled class hour in three very similar classrooms. Each treatment group was composed of 28 subjects.

The tests were handscored by the investigator with a random check of scored tests to verify scoring procedures. The data was organized and run through computer programmes at Concordia University (Sir George Williams Campus) and Vanier College (Ste.Croix Campus) in St.Laurent, Quebec.

An analysis of variance was calculated to determine whether differential effects were being produced by the samples. A significant difference ($p < .01$) indicated that the three groups were not estimates of a common population mean. An analysis of variance was computed for achievement scores, the means of which were then compared with a Scheffé test. Scores for Part 2 of the test were summated so as to provide means. A T-test of independent grand means for questions 1-9 was made. So as to provide means, a chi-square was performed on attitudinal questions 10 and 11. A T-test was performed to analyse mean time completion of work in both modular and traditional lecture group.

Significant differences ($p < .01$) between groups was found. Both experimental treatment groups were shown to be superior

($p < .01$) to the control group but no significant difference was found between the two treatment groups.

Results showed that subjects preferred the modular method of instruction and were not biased due to the kind of treatment they received. The subjects were also shown ($p < .10$) to be further stimulated to do further investigation of the subject matter. No significant difference was found between the two treatments from the viewpoint of the students.

An analysis of the data permits the following general conclusions for the student population, learning task and instructional materials utilized in this study.

1. Modular and traditional lecture presentations are equally effective teaching devices.
2. Descriptive data indicates slight advantages to the modular method of instruction.
3. Collegial students prefer the modular method of instruction.
4. The modular treatment group complete the work significantly faster than do the traditional lecture group.

Areas suggested for further research are the comparison of the modular method to other methods of instruction at all age levels, and the attitudinal outcomes of student and teacher choice of preferred teaching/learning methods. A series of modules should be compared to a series of

lectures. The modules should incorporate characteristics particular to modular instruction. Variables such as cost-effectiveness, class size, and set class times and their effect on modular instruction should also be studied.

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APPENDIX 1

MODULE ON POINT OF VIEW

MODULE ON POINT OF VIEW

Behavioral Objectives:

1. After a 25 minute presentation on the literary device known as "Point Of View", the student will be able to complete a 15 item questionnaire on "Point Of View". The lower limit of acceptable performance will be 9 items answered correctly within a time limit of 20 minutes.

   (A) Within the questionnaire, the student will be able to identify the "Point Of View" found in each of six (6) selections.

   (B) Within the questionnaire the student will be able to identify the characteristic feature of each of the "Points Of View" detailed in the 25 minute presentation.

   (C) Within the questionnaire the student will be able to identify the "Point Of View" which is best suited to a particular type of story.

   (D) Within the questionnaire the student will be able to identify the correct definition of point of view.

Module: Point Of View

The objective of this module is to introduce you to the literary device known as point of view. Point of view is the perspective from which a story is told.

In your study of literature you have worked with the major ingredients such as description, characters and dialogue. You know that plot is the skeleton outline of the story's action and that narrative flow is the result of the pace of events. Incidents such as murder, rape, and pillage happen against some sort of geographical, physical and emotional background which help to establish mood, tone and scene. These incidents usually happen to people as a result of other people. The characters are involved in some sort of conflict with nature, such as an earthquake, a thing in nature, such as a shark, another person, or themselves. In speaking to themselves or to others the characters reveal themselves and their changing attitudes. As reader, you notice that a change usually occurs in the main character. The arrival at this point will usually conclude the story and you'll judge whether or not it was a worthwhile literary experience.

Were you - as reader - aware of how you have been manipulated by the author? To a very great extent, the degree to which you correctly understood the work, or avoided misreading it, depends on your awareness of the point of view. You know, of course, that fiction is "made-up" by an author

and that the story is told or recorded by a narrator with a particular identity. The story is rarely told by the author speaking in his own voice, usually it is told through an assumed "point-of-view", that is - the eye and mind of a character through whose intelligence the action of the story is filtered on its way to the reader's perception. The author must make a conscious choice in the relationship between the narrator, the story and you, the reader. This use of a particular point of view will determine the order of events, it will establish the meaning of symbols and allow the theme to emerge. In short, the author's judgment and manipulation is always present, always evident to anyone who knows how to look for it. Thus, a closer look at the subject of point of view will be helpful towards a better understanding of literature.

Consider the following 6 selections. They represent the points of view most commonly encountered.

Selection #1: Authorial Omniscient

Carol decided that no matter what Bob said, she would not go to Ted's house. Bob, convinced he could persuade her, prepared his argument - to no avail.

"Please, Carol - as a favour to me" he pleaded. Bob did not know that Carol was protecting him from his friend's betrayal and Carol did not know that Bob had already guessed. Dear reader, take this as a warning and never trust your

best friend if he's alone with your wife.

Selection #2: Limited Omniscient

Carol would not be persuaded to visit Ted. Bob pleaded "Please Carol, as a favour to me" but it was to no avail. Carol wished to protect him from Ted's betrayal. She could not know that Bob had already guessed.

Selection #3: First Person

I meant to get to the bottom of this. Carol was trying to hide something and it concerned the three of us. Certainly if I can persuade her to visit Ted's I will know for sure what, at this point, I suspect-betrayal. "Please Carol," I begged "as a favour to me." But it was to no avail. She refused to go.

Selection #4: First Person Witness

Carol had previously confided in me. Ted had professed his love for her, and sworn that he would do all that was possible to separate her from Bob. I can imagine how Bob pleaded with her to visit Ted's. Perhaps he had already half-guessed his best friend's betrayal.

Selection #5: Selective Omniscient

The scene confused him. He felt that something was wrong. Carol usually enjoyed visiting Ted but today, after pleading

that she do so, as a favour to him, she had refused. He guessed at the betrayal.

Selection #6: Objective Point Of View

Carol was seated while Bob paced the room. He stopped short, turned quickly to her "Please Carol - as a favour to me". She stared at him, and said, "No Bob, I will not be persuaded. I will not visit Ted's even though he is your best friend".
"Why not?" Bob asked. "Did something happen while I was away?"

In these selections were you able to distinguish the perspective from which the story was told?
Who spoke to the reader? Was it the author in third or first person, a character in first person, or did it seem that no one was talking?

From what position or angle regarding the story was the narrator telling it? Was he in the centre of the action, the front, outside, or above it?

What channel of information did the narrator use to tell the story? Was it the author's direct words, thoughts and feelings as in "Dear reader, take this as a warning"? Or, was the story told through a character's words and actions, such as in: '"Bob paced the room. He stopped short,

turned quickly to her. "Please Carol - as a favour to me"'? Or, was the story told through a character's thoughts, perceptions and feelings, as in "I meant to get to the bottom of this"?

At what distance did the narrator place you, the reader, from the story? Were you far from or close to the events?

Were you told of events in the story or involved in them in such a way as to draw your own ideas and impressions or them?

To clarify these issues and thereby understand the perspective from which the story was told, reconsider the first selection.

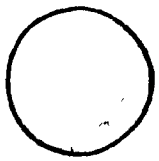
Selection #1: Authorial Omniscient

Carol decided that no matter what Bob said, she would not go to Ted's house. Bob, convinced he could persuade her, prepared his argument - to no avail.
"Please, Carol - as a favour to me" he pleaded. Bob did not know that Carol was protecting him from his friend's betrayal and Carol did not know that Bob had already guessed. Dear reader, take this as a warning and never trust your best friend if he's alone with your wife.

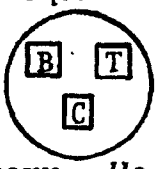
This is an example of authorial omniscience. Authorial omniscience is the most elaborate and inclusive of points of view. It is completely unlimited. The narrator, who is

almost always the author, tells the story in the third person as if he has the powers of God. The story may be seen from any or all angles: from a Godlike vantage point beyond time and place, from the centre, the front or the sides. The author can shift about at will.

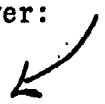
A visualization will clarify the authorial omniscient point of view. The action of Bob and Carol's story may be symbolized as a circle:



The line making up this circle represents the plot of the story and within this circle is the time and space in which the fictional characters, Bob, Carol and Ted, live their lives. Within this circle the writer manipulates his story. Imagine the characters as squares inside the action:

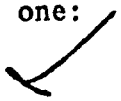


Someone is telling the story. He may be the author or a character within the story. Visualize this narrator as: N The narrator may be allowed limited or unlimited access to the thoughts of the characters. If he is allowed to enter the mind of a character, such access, when visualized is to be seen as an arrow, indicating his penetrative power:

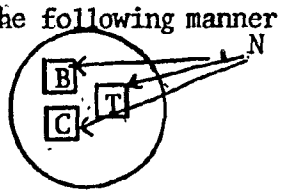


If the narrator is allowed only external knowledge of actions and overheard conversations but is blocked from

entering the minds of characters, the arrow will be a blunted one:



Let's return then to our first selection in which the reader has access to the complete range of possible kinds of information. The reader has access not only to the thoughts, feelings and perceptions of the characters but also to those of the author himself. This may be visualized in the following manner:



Note that the narrator's arrow has complete penetrative power. The characteristic feature of authorial omniscience is the presence of the author's intrusions and generalizations about life, manners and morals which may or may not be explicitly related to the story. A good example of this characteristic of authorial omniscience is the novel Tom Jones in which the author, Henry Fielding, constantly leaves his hero's adventures and speaks directly to the reader. A close relationship with the narrator who comments on the action, who reassures us of his hero's moral worth and who promises a happy ending whenever tragedy seems ready to strike, builds up and so, it is only fitting that, towards the end of the novel, the author-narrator says an intimate farewell to his readers:

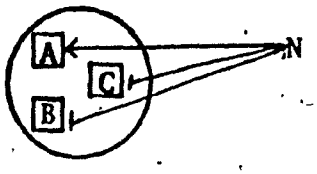
"And now, my friend, I take this opportunity (as I shall have no other) of heartily wishing thee well. I promise thee it is what I have desired. If in anything I have offended, it was really without any intention ."

When employing authorial omnisience, the author can report what goes on in the minds on his characters and he can also criticize it. In this way, he offers the reader a wider understanding of the events. In Thomas Hardy's novel Tess of the D'Ubervilles, the author, when discussing his heroine's misery, shows Tess wandering about unhappily, imagining that all of Nature was condemning her. Hardy then overtly informs the reader that the unfortunate girl was wrong in feeling this way. I quote: "But this encompassment of her own characterization, was a sorry and mistaken creation of Tess's fancy - a cloud of moral hobgoblins by which she was terrified without reason." Tess however, never discovers this and the reader is left feeling immensely sorry for her.

Now let's reconsider SELECTION #2: LIMITED OMNISCIENT

Carol would not be persuaded to visit Ted. Bob pleaded "Please Carol, as a favour to me" but it was to no avail. Carol wished to protect him from Ted's betrayal. She could not know that Bob had already guessed.

This is an example of limited, or neutral, omniscience. Limited, or neutral, omniscience differs from authorial omniscience only in the absence of a direct intrusion by the author. This narrator tells the story in the third person. He may be inside the action and is most often allowed access to one or two minds. This point of view can be visualized in the following manner:



The major tendency of the limited omniscient narrator is that he describes and explains events in his own voice. He is always ready to intervene himself between the reader and the story and to describe a scene as he sees it rather than as his character sees it. In order to illustrate this, let's return to Tess when Hardy has her first sight of Alex, the cause of her troubles:

"...a figure came forth from the dark triangular door of the tent. It was that of a tall young man, smoking."

Although it is Tess who sees this man, it is certainly Hardy who describes him to us:

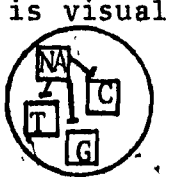
"He had an almost swarthy complexion, with full lips, badly moulded ... about which was a well-groomed black moustache... yet despite the touches of barbarism in his contours, there was a singular force in the gentleman's face, and in his bold rolling eyes." Hardy is not speaking in his own voice but he is manipulating, through his specific choice of words, our impression of Alex. This then is limited omniscience.

Reconsider SELECTION #3: FIRST PERSON

I meant to get to the bottom of this. Carol was trying to hide something and it concerned the three of us. Certainly

if I can persuade her to visit Ted's I will know for sure what, at this point, I suspect-betrayal. "Please Carol," I begged, "as a favour to me". But it was to no avail. She refused to go.

This is an example of first person point of view. The first person point of view which uses the personal pronoun "I" combines the narrator and a character, who can reveal himself as he understands himself. This narrator is a creation of the author but the author is denied any direct voice in the story. The first person narrator is a character within the story, involved in the action, acquainted with the other characters and speaking to the reader in his own voice as "I". This point of view is visualized in the following way:



There are two types of the first person point of view. He can be a witness to the events of the story or as in selection #3, the protagonist in the events. As a witness to the events he has no more than ordinary access to the mental states of others. There is no longer any omniscience and we, as readers, can only view the story from what this narrator observes or discovers. But this need not be too restricted a point of view. The I as a witness can talk to many of the characters in the novel and get their views on important matters. He can have talks with the main character who may confide in him or he can have access to letters and diaries which may provide the reader with

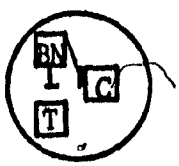
information about the other characters. And he can speculate about how the other characters feel and think. For example, in Scott Fitzgerald's Great Gatsby Nick is the first person witness - narrator who speculates about what went on in Gatsby's mind before he was shot: "I have an idea that Gatsby himself didn't believe it would come, and perhaps he no longer cared... He must have felt that he had lost the old warm world..."

In the first person witness point of view scenes are usually presented directly as the witness sees them or, the witness can summarize the narrative. He can move about a great deal because he plays a subordinate role in the story.

Reconsider SELECTION #4; FIRST PERSON WITNESS,

Carol had previously confided in me. Ted had professed his love for her, and sworn that he would do all that was possible to separate her from Bob. I can imagine how Bob pleaded with her to visit Ted's. Perhaps he had already half guessed his best friend's betrayal.

Here the reader encounters a person involved in the action and who is therefore limited almost entirely to his own thoughts, feelings and perceptions. This point of view is visualized in the same manner as the first person protagonist point of view.

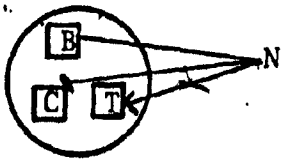


This then, is an example of "I as witness" point of view.

Reconsider SELECTION #5: SELECTIVE OMNISCIENT

The scene confused him. He felt that something was wrong. Carol usually enjoyed visiting Ted but today, after pleading that she do so, as a favour to him, she had refused. He guessed at the betrayal.

This is an example of selective point of view. Selective point of view is the one most used in modern stories which dramatize mental states and which most often begin abruptly and seem to be distorted. In selective omniscience the reader is restricted to the mind of only one of the characters and directly receives all the information through the mind of this character. This point of view may be visualized in the same manner as was the limited omniscient point of view.



Note however that there can be no intrusion by the author and therefore he must express all thoughts and feelings from the mind of the selected character. The following is a vivid example of selective omniscience. In James Joyce's A Portrait of the Artist he tells the story through one character, Stephen:

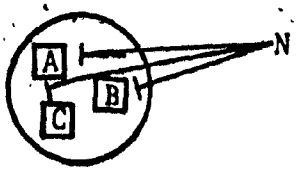
"The squalid scene composed itself around him; the common accents, the burning gasjets... An old woman was about to cross the street, ...he bent down and asked, was there a

chapel near."

In the twentieth century we tend to want to remain uninvolved and thus the objective point of view has been used more frequently in literature. Reconsider SELECTION #6: OBJECTIVE POINT OF VIEW.

Carol was seated while Bob paced the room. He stopped short, turned quickly to her "Please Carol - as a favour to me". She stared at him, and said, "No Bob, I will not be persuaded. I will not vist Ted's even though he is your best friend". "Why not?" Bob asked. "Did something happen while I was away?"

The objective point of view allows only that which can be seen or heard to be recorded. The character's thoughts are not known and neither can the author intrude. For example, a character may pace a floor which is an objective act, but what he thinks is his own business and we are not told. However, we can infer mental states from actions and dialogue. The presentation is always solely of the action which the reader "witnesses". Often the narrator is so far removed from this type of a story that he totally lacks identity. The objective point of view can be visualized in the following manner.



You have seen that the author's choice of point of view will greatly influence the telling of his story and that each point of view functions differently. Each is suitable for specific effects and illusions - as in the choice of objective point of view for a fast-paced dramatic story.

The author must select and maintain the point of view best suited for his story. If the author wants to have a definite philosophical role in his novel, or if he wants unlimited freedom he should select the authorial omniscience. If the author wants to freely reveal the thoughts of many characters through his own superior and explanatory tone and also to achieve the effect of futility and indignity then neutral omniscience is the logical choice. If what is desired is the element of suspense and the gradual building up of a situation such as is found in mystery and detective stories then the I-as-witness first person narrator seems best. The use of the I-as-protagonist-narrator will best trace the growth of a person as he reacts to experience. If the intent is to show a character in a moment of discovery selective omniscience is the best technique.

The analysis of point of view will therefore help reveal the author's purpose and the values he has presented through the use of a particular technique. It helps us understand literature.

APPENDIX 2

QUESTIONNAIRE

QUESTIONNAIRE POINT OF VIEW

STUDENT NAME_____

AGE_____

SEX_____

This questionnaire is divided into two sections. Section One is based on factual knowledge. Section Two is based on attitudes. Please answer all questions.

I For questions #1-#6 fill in the correct point of view underneath the appropriate selection. The following are the main types of point of view:

- first person
- selective omniscient
- limited or neutral omniscient
- authorial omniscient
- first person witness
- objective

1. Carol decided that no matter what Bob said, she would not go to Ted's house. Bob, convinced he could persuade her, prepared his argument — to no avail. "Please, Carol — as a favour to me." he pleaded. Bob did not know that Carol was protecting him from his friend's betrayal. And Carol did not know that Bob had already guessed. Dear reader, take this as a warning and never trust your best friend if he's alone with your wife.
   The above is_____point of view.

2. Carol would not be persuaded to visit Ted. Bob pleaded ~~"Please~~ Carol, as a favour to me," but it was to no avail. Carol wished to protect him from Ted's betrayal. She could not know that Bob had already guessed.
   The above is_____point of view.

3. Carol was seated while Bob paced the room. He stopped short, turned quickly to her "Please Carol — as a favour to me." She stared at him and said, "No Bob. I will not be persuaded. I will not visit Ted's. Even though he is your best friend".
   "Why not?" Bob asked. "Did something happen while I was away?"
   The above is the_____point of view.

4. I meant to get to the bottom of this. Carol was trying to hide something and it concerned the three of us. Certainly if I can persuade her to visit Ted's. I will

4. (cont'd)

know for sure what, at this point, I suspect – betrayal. "Please Carol" I begged "as a favour to me." But it was to no avail. She refused to go.
The above is the _____ point of view.

5. Carol had previously confided in me. Ted had professed his love for her, and sworn that he would do all that was possible to separate her from Bob. I can imagine how Bob pleaded with her to visit Ted's. Perhaps he had already half-guessed his best friend's betrayal.
The above is the _____ point of view.

6. The scene confused him. He felt that something was wrong. Carol usually enjoyed visiting Ted but today, after pleading that she do so, as a favour to him, she had refused. He guessed at the betrayal.
The above is the _____ point of view.

7. Circle the main distinguishing feature of authorial omniscient point of view.
   a. the narrator is allowed unlimited access to the thoughts of the characters from any vantage point.
   b. the narrator is allowed limited access to the thoughts of the characters from any vantage point.
   c. the narrator is allowed unlimited access to the thoughts of the characters from a fixed vantage point.
   d. the narrator is allowed limited access to the thoughts of the characters from a fixed vantage point.

8. (Circle the correct answer) Point of view is:
   a. the angle from which the main characters see events.
   b. the author's manipulation of characters.
   c. the perspective from which a story is told.
   d. none of the above.

9. The use of a particular point of view:
   a. will determine the order of events.
   b. will establish the meaning of symbols.
   c. will allow the theme to emerge.
   d. all of the above.

10. The author's judgement and manipulation:
   a. is always present and evident.
   b. exists in preface and postscripts only.
   c. appears rarely.
   d. never appears.

11. In which type of the story would the objective point of view be best used?
    a. modern stories which dramatize mental states.
    b. fast-paced stories in which the reader is uninvolved.
    c. stories in which all of the characters thoughts and emotions are known.
    d. stories which involve complex plots.

12. Circle the characteristic feature(s) of authorial omniscience:
    a. the author has complete penetrative power.
    b. the author speaks directly to the reader.
    c. the author intrudes in the story and makes generalizations.
    d. all of the above.

13. Circle the characteristic feature(s) of the limited, or neutral, point of view:
    a. the story is told in first or second person.
    b. the narrator describes and explains events in his own voice.
    c. the narrator never intervenes in the story.
    d. the author, in the first person, directly intrudes in the story.

14. Circle the characteristic feature(s) of the first person point of view:
    a. the narrator is omniscient.
    b. the narrator has no more than ordinary access to the mental states of others.
    c. the narrator is always in a fixed vantage point.
    d. the narrator is never involved in the action.

15. Circle the characteristic feature(s) of the selective omniscient point of view:
    a. the author can intrude with his own comments.
    b. the selection of viewpoints varies.
    c. the reader is restricted to the mind of only one of the characters.
    d. all of the above.

QUESTIONNAIRE POINT OF VIEW STUDENT NAME_____

II For question #1-#11, the scale 1 to 5 will be employed. Circle the response which most closely indicates your attitude.

1. The objective of this presentation was to explain and differentiate the major types of point of view. To what extent was this achieved?

greatly		some		not at all
1	2	3	4	5

2. How would you rate the information which was included in the presentation?

most information already known		knew some		had no previous knowledge
1	2	3	4	5

3. There was the right amount of information provided in the time available.

strongly agree		agree		strongly disagree
1	2	3	4	5

4. I found this presentation interesting and stimulating.

strongly agree		agree		strongly disagree
1	2	3	4	5

5. The presentation was clearly organized and to the point.

strongly agree		agree		strongly disagree
1	2	3	4	5

6. The presentation helped clarify the literary technique known as point of view.

strongly agree		agree		strongly disagree
1	2	3	4	5

7. The presentation was at the level of the class.

strongly agree		agree		strongly disagree
1	2	3	4	5

8. Ideas and concepts were developed at the right pace.

strongly agree		agree		strongly disagree
1	2	3	4	5

9. I would rate the general quality of the presentation as excellent.

strongly agree		agree		strongly disagree
1	2	3	4	5

10. Which learning method would you prefer for this subject matter?
    1. a lecture
    2. a module
    3. a seminar
    4. a tutorial
    5. other - _____.

11. This presentation has encouraged me to:
    1. investigate the subject matter further.
    2. consider investigating the subject matter further.
    3. do nothing.
    4. find a new field of interest.
    5. disbelieve the importance of point of view and never apply it to literature.

APPENDIX 3

COMPARISON OF CONVENTIONAL LESSON AND MODULE

Attribute	Conventional Lesson	Module
Learning Experiences	Conventional materials are typically characterized by lectures, reading the text, group discussions and sometimes an isolated laboratory experience. The learning experiences are oriented toward teacher performance and group instruction with emphasis on teaching.	Modules provide for a combination of learning experiences providing an integrated sequence so that each learning activity can enhance and complement the others. The learning experiences are oriented toward student performance and individual instruction with emphasis on learning.
Role of Teacher	The role of the teacher is one of disseminator of information.	The role of the teacher is one of diagnostician, prescriber, motivator and resource person.
Objectives	Objectives are *not* usually stated in specific, behavioral terms. They must be inferred from the content of the subject matter and tests.	Objectives are stated in terms of student performance and usually are presented to the student before the instruction begins.
Selection	Materials (texts, etc.) are selected first; tests are designed to sample this material; but desired behavior with respect to the materials is not always clearly defined in advance.	Objectives are stated first; test items are designed to measure mastery of these objectives; then instructional materials are selected to assist the student in mastering the objectives.

Attribute	Conventional Lesson	Module
Rate	Students are forced to go through the course "in a lock-step manner" (all going at the *same* rate). They all begin at the same time and are expected to finish simultaneously.	Each student can proceed at his own rate. He is free to skip any portion of the module as long as he can demonstrate mastery of the objectives. He is also free to repeat any portion of the module as often as necessary.
Strategies	Teachers tend to use just one or two strategies, such as lectures and written assignments, regardless of the many different types of learning in the course (psychomotor manipulations, cognitive skills and attitudinal changes).	Different learning strategies are used for objectives representing different kinds of learning. A variety of instructional strategies are used to optimize learning on a given topic.
Media	Media are prepared and used on the basis of familiarity (texts, films, 2x2" slides, etc.) and are chosen by the teacher on the basis of his feeling comfortable with certain media (usually printed).	Media are selected to complement the type of objective and type of learner, then student tested. A large variety of media are incorporated into each module.
Individualization	Conventional lessons are group oriented. Students are usually provided with a limited number of instructional resources. Usually, the teacher specifies exactly how the student should proceed—read twenty pages of the text and answer ten questions, etc.	Modules may be highly individualized. Each student can use any or all of the media and materials available. The selection of the most appropriate approach is often left to the student—listen to a tape, read a text, look at diagrams, view a film, examine real objects or any combination thereof.

Attribute	Conventional Lesson	Module
Participation	The student's role is usually passive—reading the text or just listening to the teacher.	Modules provide for active student participation. The student learns by doing. The student is actively involved in manipulating the instructional materials.
Achievement	Individual differences in achievement are expected. If a student wants enrichment materials, he usually must "dig" them out on his own. Tools and time for individual diagnosis and remedial help are normally lacking or not available. If a student is having difficulty, the teacher must work with him to help him keep up with the class or let him go and fend for himself.	A module is considered a failure if a significant number of students fail to reach the criterion performance. If a student wants to study a particular topic in greater depth, he can secure supplementary materials and proceed without interrupting the progress of an entire class. Remedial help and extra time are also available for slow learners to reach mastery. If a student is having difficulty mastering a lesson, he can spend the additional time and get individual help from the teacher without delaying the entire class.
Time	Time spent on a topic is usually constant for all learners which results in no time variance. Thus, achievement scores correlate highly with I.Q.	The students spend as much time as necessary to master the topic. Time required for mastery is usually distributed normally and tends to correlate highly with I.Q.
Freedom	Traditionally, forty-five minutes or an hour each day	Instruction can be at the student's convenience and at

Attribute	Conventional Lesson	Module
Freedom (cont'd)	are scheduled at a fixed time for instruction. Students are forced to attend lectures and laboratories when they are in progress (e.g., from 8:00 to 8:50 on Monday, Wednesday and Friday).	the time of day when the student learns "best." Modules provide greater freedom for students to adjust study time and subject matter content to individual needs and peculiarities of interest.
Reinforcement	In traditional courses, students are reinforced or corrected only after major examinations. Many times there is a considerable delay between the time when the exam is taken and when it is graded and returned to him.	The small size of the module permits immediate reinforcement and correction.
Testing	Tests usually sample the content which has been "covered." The student is often at a loss as to how to prepare (study) for the test. The student sits through the course, then takes an examination to determine his grade for the course. Tests are too often used only to "give grades," rather than for feedback or diagnosis.	Learners are given the objectives and told how attainment of them will be evaluated. Tests are designed to measure mastery of the objectives. The student receives credit when he can demonstrate mastery even if he has *not* gone through the module. Test items (questions) are used for assessing prerequisite skills, for diagnosing difficulties and for confirming mastery.
Reference	Norm-referenced tests are used where success is dependent upon the performance of others in the class.	Criterion-referenced tests are used where success of the student is independent of the performance of others using the module.

Attribute	Conventional Lesson	Module
Mastery		
	Most learners know at least a little about everything. It is not expected that all students can achieve mastery.	Slow learners master some of the objectives but may not have time in an arbitrary period for other objectives. Given time, even slow learners can master most, if not all, of the objectives.
Portability		
	Conventional courses are usually based upon the teacher's lecture and are only portable by moving the teacher to a new location (sometimes accomplished via videotape). The lecture is usually lost forever after the class period ends. If a student misses part of a conventional course, he must talk with the teacher, review a fellow student's notes or miss the instruction entirely.	Modules can be portable and easily available at a variety of locations—in the field, at home or in a hospital. They can be easily exchanged and disseminated to other schools. Since the modules are in individual packages, make-up lessons and review sessions can be accommodated with a minimum of effort. All students are exposed to the same instruction, regardless of the hour of the day or the day of the week.
Revisions		
	Revisions often reflect preferences of the teacher for content topics to be covered. Many times revisions necessitate a complete rewriting of the text or study guide and a major revision of all study material.	Revisions of materials are based on student performance. If students are not mastering material, it is revised. Subject matter which is constantly changing can be updated with a minimum of cost and effort.
Flexibility		
	Conventional courses are structured around a semester or year-long course outline or textbook and tend to be inflexible.	Modules can be structured into a greater variety of patterns consistent with different approaches or themes.

Attribute	Conventional Lesson	Module
Course Success		
	Lacking the features of systematic design and specific objectives, there is no built-in provision for judging success of the course other than the teacher's subjective judgement.	Having a design goal and an evaluation plan, the module developer is able to correct faulty instructional materials and know when he has succeeded in developing a successful module.
Student Failure		
	Failure is usually not detected until the end of an examination period (six weeks or even a semester). Students often try to build hierarchical skills upon an inadequate foundation. Many times students are forced to repeat an entire semester or course.	Inadequate achievement can be identified at each critical step in the student's progress. Consequently, the subject matter is mastered before the student proceeds to subsequent studies. Failure can be pinpointed specifically to both subject matter and instructional material and subsequently remedied with a minimum of time and effort. The student has to repeat just that module which was failed, not an entire course.

APPENDIX 4

MALE-FEMALE BREAKDOWN

MALE-FEMALE BREAKDOWN

Group	n	Male	Female
Control	28	12	16
Lecture	28	19	9
Module	28	14	14