A COURSE IN FRESHMAN ENGLISH COMPOSITION
BASED ON THEORIES OF CREATIVITY

DISSERTATION

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

Patrick Posey Garrett, B. A., M. A.
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TABLE OF CONTENTS

Chapter                                                   Page

I. INTRODUCTION ........................................... 1

   Statement of the Problem
   Definition
   Background and Significance
   The Need for Creativity in
   Higher Education
   Recovery of Purpose
   Creativity as an Historical and
   Continuing Goal
   Student Dissonance
   The Appeal of Creative Education
   Academic Dissatisfaction
   Summary
   Procedures for the Development of
   the Experimental Course
   Procedures for the Survey of the
   Literature

II. CREATIVITY: DEFINITION AND PROCESS ................  56

   Introduction

       A working definition
       Process

           Preparation
           Incubation
           Illumination
           Verification

   Summary

III. CONDITIONS FOR CREATIVITY AND SOME
     IMPLICATIONS FOR EDUCATION ...................  96

   Conditions for Creativity (Internal)

       Openness in experience
       Autonomy of judgment
       Capacity for juxtaposition
       High activation level
Conditions for Creativity (External)

Psychological safety
Psychological freedom
Variety of stimulus

An Illustrative Example
Some Implications for Education

Providing structure
The process
Preparation
Incubation
Illumination
Verification

Summary

IV. A COURSE IN FRESHMAN ENGLISH COMPOSITION ............... 132

Objectives

Content

Identification
Definition
Description
Comparison-contrast
Analysis

Activities

Preparation
Incubation
Illumination
Verification

Materials
Enrollment and Staff
Evaluation
Sample Syllabus

Preliminary activities
A sample unit

Preparation
Incubation and illumination
Verification

Conclusion

iv
APPENDIX .................................................. 167
BIBLIOGRAPHY ........................................... 178
CHAPTER I
INTRODUCTION

Today's colleges and universities are faced with the challenges of reforming their curriculums in an effort to hold a generation of students who are now demanding more than just a degree. Higher education has come to be called by one author "the system [that] really isn't working."¹

The whole network of departments, field, areas, credits, requirements, courses, grades, which we have accepted as educational design, does not relate coherently to human learning, and the network is collapsing of its own Byzantine weight.²

The above statement reflects the thinking of many educators and students who are currently involved in American higher education. They are perplexed and anxious to seek some resolve which will meet the challenge. In attempts to solve its problems, higher education has undertaken major innovations in some fields. Many of these innovations demand the removal of courses or a complete reassessment of their intentions in an effort to serve a more demanding student and society. One such course which has come under close scrutiny in the last few years is freshman English composition.

²Ibid.
Within ten years freshman English composition may not be among the courses offered in the colleges and universities of America. Today it is apparent that schools are deciding to either drop the course altogether or revise it in order to "... hold this generation of students, to engage their interest, and gain their respect." Thomas W. Wilcox, who is currently heading NCTE's "The National Survey of Undergraduate Programs in English," offers one of the primary reasons for the change taking place. Wilcox notes that the high schools are doing a far better job in training students in composition, and those students arrive at college already proficient in writing skills. William Riley Parker, in tracing the origins of departments of English in America, states that the service course additions made in English departments during the 1890's were destined for disintegration. Freshman composition was one of those service courses added in the 1890's. A preview of the Wilcox Survey appeared in the March, 1968, issue of College English. In that article, Wilcox notes that 61.8 per cent of the English departments who participated in the nation-wide study had made major changes in their freshman

5William Riley Parker, "Where Do English Departments Come From?" College English, 28 (February, 1967), 348.
composition offerings. It appears that, if freshman English is to remain, a redefinition of purpose or justification for existence must be offered and soon.

Educators have consistently expressed great concern that individual differences among students were being neglected by today's teachers. In vogue with this criticism has come the recommendation that the creative student should be provided for in plans for future American education. During the past ten years two research centers in this country, the Center for Research and Development in Higher Education at the University of California, Berkeley, and the University of Minnesota Studies in Creativity, have published convincing conclusions which call for a complete reassessment of current practices in the teaching field in hopes of nurturing the creative student.

Applications of what has been recommended have primarily been directed toward the elementary and secondary levels. Higher education has not received the attention these other two areas have been afforded. For this reason it would seem appropriate that due application be made of current writings on creativity for the college level. Paul Heist, in the preface

to the book he edited, *The Creative College Student: An Unmet Challenge*, states,

Admittedly, some students given to originalities and creative expression can learn and often do achieve in routine college settings but we have come to realize that general teaching methods and common curriculum are sadly inadequate and fail to help those individuals to realize potentialities.9

One field of higher education, the freshman English composition course, may well be one area which could save itself from extinction provided some feasible design be offered to replace what obviously is failing. Each student entering college for the first time usually must enroll in an English composition course. Such a course offers great potential to encourage the creative capacity of the incoming student and foster an attitude of personal inquiry. The diversity of subjects and intentions which can be introduced in the beginning composition course offers a healthy reservoir of opportunity for exploring personal meaning. Introducing some of the goals and concepts of creativity may thus inspire the design of a new course given to meeting the challenges of higher education.

In a reply to the Wilcox analysis, cited above, Howard K. Nixon has confessed some reluctance to give up the writing course, but agrees,

9*Heist, p. x.*
As long as we continue to fail to connect what goes on in a composition class with the non-handbook problems that confront any writer, we have no business teaching the subject.\(^\text{10}\)

What Nixon obviously refers to is the need for any writer to be able to tap a reservoir of creative thought before he begins his job. That need can be met if teachers are willing to allow and encourage creative expression in the composition class.

Statement of the Problem

The problem of this study was to develop a course in freshman English composition based on the theories of creativity and directed towards the development of the student's creative and critical capacity.

Definition

**Freshman English Composition**.--Freshman English Composition is a general course title which often pertains to many activities. Some composition courses include an introduction to the study of literature; others attempt to coordinate the study of literature and composition. In this study, freshman English will emphasize written composition.

Background and Significance

When a student enters college for the first time, he is usually permitted a freedom unlike any he has known previously.

\(^{10}\)Howard K. Nixon, "Response to Wilcox's 'Non Serviam: The Reintegration of English'," *College Composition and Communication*, XIX (May, 1968), 155.
He becomes responsible for his upkeep, and he is allowed the opportunity to manage his own direction as an adult. There is obviously great potential power for personal development in such a situation. Has the college teacher recognized this potential and accepted the responsibility for directing it? Or has he stunted this release of personal energy by structuring a curriculum that denies the student the means of the discovery, development, and articulation of new ideas that often come as a result of being removed from a former environment?

In the last several years, investigators have begun to make extensive studies of the American college student. Their findings indicate that it is time that a new type of undergraduate education be provided in order to develop student potential. Joseph Katz and others, in a recent publication based on extensive data, No Time for Youth, found that the college environment is a "... highly controlling one ..." which "... creates stress in many students."¹¹ Some are comfortable being told what to do; others can overcome the obstacles of the college environment for the purpose of their own growth, yet the bulk of students are "... those whose lives never reach an adequate expression of their potential because they are handicapped by inadequate self-awareness

and inadequate self-assertion, as well as by the environment, whose demands and constraints discourage their spontaneity."

Today prominent writers in the field of higher education point to the necessity of assessing and reconstructing college courses so that new direction will be provided. Heist points out that one of the higher education's greatest challenges is preparing an environment which nurtures original thought and production. John S. Diekhoff, Dean of Cleveland College, Western Reserve University, agrees that major changes are necessary in the teaching of college English and that a guide to the restructuring of the program is incorporated in Jerome Bruner's *The Process of Education*, a recent publication of great import. Although Bruner's work is directed towards the improvement of general education, he includes ideas which are relevant to teaching college English. In the chapter entitled "Intuitive and Analytic Thinking," Bruner directs his remarks to the intuitive process and calls for a removal of the "middle language" which concerns itself with the conclusions in a field of inquiry rather than focusing upon the inquiry itself. Bruner believes that the formalism of

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13*Heist*, pp. ix-xii.


school learning has somehow devalued analytic and intuitive thinking.\textsuperscript{16}

The Need for Creativity in Higher Education

It has always been acknowledged that the university was created for the student, and not vice-versa, but during the last ten years many writers and much research have challenged America's institutions of higher learning to promote individual development among their students or cease claiming to exist as student oriented institutions. The intention of the following section is to determine the need for creative higher education by examining these relevant areas:

1. Recovery of purpose
2. Creativity as an historical and continuing goal
3. Student dissonance
4. The appeal of creative education
5. Academic dissatisfaction.

Within this section and those which follow, the terms "individual development" and "creative development" will be used interchangeably.\textsuperscript{17}

Recovery of Purpose

The phrase "recovery of purpose" has been consistently voiced by educationalists and other innovators in higher education.

\textsuperscript{16}Ibid., pp. 60-62.

\textsuperscript{17}The two terms have come to carry approximately the same connotation according to writers in the field of higher education. One such writer is Sanford. See Nevitt Sanford, \textit{Where Colleges Fail} (San Francisco, 1967), pp. 92-94.
education insisting that there be a genuine return to the locus of greatest concern, the individual student. If that concern leads to the effort to actualize potentialities, to encourage individuality, and to develop as complete and whole a student being as possible, then that concern might differ little from the endeavor of one seeking to release creativity. Yet at this point a certain tension has grown in the American college, and it lies in the dualism expressed in the terms most often applied to describe the general role of higher education: to train and to educate. The tension evolves from the effort of many to relate pertinent facts and procedures relevant to a particular discipline. Those accepted procedures become the concern of the course or college and direct those immediately involved toward perpetuating the status of the discipline.

For example, an instructor who decides that there is only one valid system of literary criticism will often leave his students very little opportunity to become acquainted with any other system. If he in turn requires his students to interpret literature on the basis of his single approach, there may be little or no opportunity for the students to inquire into the other various theories of literary criticism.

On the other hand, the creative function, that which builds eventually towards the achievement of a "traditional education," requires openness, a newness which may have no bearing upon or relationship to the procedure, fact, or method being advanced by the teacher. It will not be until the
leaders in American higher education are convinced that education is far superior to simply imparting data for the development of the individual that the conflict will be resolved. When and if it is properly resolved, the return to an education for the student will entail devising the best means by which the individual's potential can be realized. That goal is precisely the one sought today by the advocates of higher education for creativity.

If creativity is to be fostered in the future, a grass roots concern by the college teacher for his student's development is obviously necessary. Yet, in results of a survey made several years ago, this concern seems not to be as noticeable as would be expected. Davis asked several hundred professors to venture a glimpse into the future and predict what could be expected. Of the forty prognostications which came from the study, only one referred to the necessity of tailoring programs to students instead of students to programs. The Davis study is a single case in point, yet it is indicative of the lack of concern for student oriented programs. Had this survey been made several years later, abreast of the rising cry of college students insisting on changes, the ratio might have been much less.

Much of what has been written concerning creativity in higher education has been directed towards providing for the

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so called "talented" college student. Ralph J. Gleason, Vittorio Giannini, and Benson R. Snyder are a few of many who call for providing an atmosphere for the "gifted" college student so that his best talents can be brought to their greatest potential.\(^1\) Though their studies are indigenous to the new efforts being made to provide for the creative college student, should not there be some thought given to the idea that atmospheres created for the talented or gifted student might be good for all the students, not just a select handful? It is the contention of this study that creativity in higher education can be realized to some degree by everyone.

The objective of creative education is individual development. Though the production of geniuses is a noble undertaking, releasing the creative potential of as many students as possible seems equally as advantageous. Researchers have not yet concluded that only a portion of a student population is capable of creative endeavors. Until they do so, the educator should assume that everyone has some creative potential. Higher education for creativity appears to be what a good general education should consist of in the first place, making it possible to educate for creativity among all college students.

Psychiatrists and sociologists have concluded similarly in recent years. A. H. Maslow, a leading proponent of

"self-actualization" and other theories of human growth, has sought to eliminate the dichotomy existing between producing specialists and complete human beings:

Only recently, from our studies of healthy people—of the creative process, of play, of aesthetic perception, of the meaning of healthy love, of healthy growing and becoming, of healthy education—have we become aware, fully aware, that every human being is both poet and engineer, both rational and nonrational, both child and adult, both masculine and feminine, both in the psychic world and the world of nature. Only slowly have we learned what we lose by trying daily to be only and purely rational, only "scientific," only logical, only sensible, only practical, only responsible.

The mammoth changes occurring in the twentieth century are tolling the exit of demands for college trained specialists and signaling the need for the cultivation of students worthy of grappling with the forthcoming demands of the next century. The utilization of creative potential in our society stands as a salient feature in the optimistic plans of those educators planning for the future. The college has an increasingly important position in these plans. The urgency of the need for higher education to bring about the release of creative potential rests in its adaptability to the changing times. The fact that the college must assume a role of helping to bring about personal, individual conquest is conveyed succinctly in the writings of Sidney J. Parnes, an outspoken authority on creativity and its educational implications:

The discoveries and innovations of the next twenty years will probably make the previous one hundred years seem to have progressed at a snail's pace. Therefore, a person cannot foresee exactly what knowledge he will need five or ten years from now to meet his life's problems. He can, however, develop the attitudes and abilities that will help him meet any future problem creatively and inventively.21

The creative attitudes and abilities Parnes calls for are not guaranteed in any college catalog, despite the fear that without them the talents of those enrolled in American's institutions of higher learning may atrophy and deny the future its due.

Others view the need for the development of creative potential in more specific terms. Psychologist Walter Gruen, for example, offers three primary reasons why our maximum creative potential ought to be utilized today. He sees America's destiny locked in the resolve [sic] of three engagements: (1) a critical examination and reaffirmation of the basic democratic ideal, the worth of the individual; (2) a soul searching into the mental health of the individual in our increasingly complex society; and, (3) the not so peaceful rivalry with communist nations.22

The belief that higher education can offer to its students the environment for creative development grows from an

21Sidney J. Parnes, "Education and Creativity," Teachers College Record, 64 (January, 1963), 337.

understanding of the student's perceptual field upon entrance into college. Although there are no definitive works as yet on the "psychology" of the American college student, there are available studies and theories which point to the potential growth power an incoming freshman brings with him to the college scene. The many rich possibilities for change and personal fulfillment abound. It has been recognized that the entrance into college may be likened to any initiatory stage in life. A removal from a formerly secure station in life to a new and less secure station carries with it a degree of personal conflict and stress. According to phenomenologists Snygg and Combs, the individual's overpowering need for personal adequacy will force him to make some adjustment in his perception in order to maintain psychological equilibrium. The resulting adaptation to the challenge of maintaining adequacy results in what is commonly called learning.

A common practice in higher education involves the teacher's assuming the role of dispenser of information. The student is told that the facts he receives are vital to the job for which he is preparing. He acquires the facts and is evaluated on his ability to feed them back at the appropriate time. Those in society today who have come up under this system and have realized some degree of success are the system's staunchest supporters. For this reason, when the

rebellious college student does not behave in ways adults desire and require, the public often erroneously assumes that it was because the proper data were not imparted. If genuine adequacy is to be maintained by the student confronted with the conflict of a new life style, then that student must be capable of drawing on more than teacher-delivered information.

The entering college freshman has a wide variety of ways and means to maintain his equilibrium. Some cooperate and graduate without really making much adjustment other than a superficial change seen as appropriate for the time. Others actually replace old responses with new ones, more adequate ones which are consistent with the demands of change. Others regress and drop out. Yet all are faced with the problem of finding a new adequacy. Since this process is continuous, it may be expected that the individual will perpetuate in later life that which affords success.

Recent research projects concerning the creative college student have shown that many of the individuals categorized as creative tended to disappear from college after an initial encounter with its culture.\(^{24}\) In one such study thirty-nine entering students were identified as creative; sixty-one percent of these individuals withdrew or did not finish in four years.\(^{25}\) The conclusion drawn from these studies is that

\(^{24}\)Heist, p. 36.
\(^{25}\)Ibid., p. 39
students who are marked as "creative," or identified by measured characteristics of creativity, leave college more frequently than those students not so identified. Since it is one of the contentions of this chapter that each student has some creative potential and that that potential is realized through individual development, then there arises the question as to whether America's college system is providing the climate necessary to hold an increasingly discriminating student body. If, as some writers describe it, a creative disposition is essential to creative development, then the institutions of higher education have a responsibility for encouraging that disposition.

There must be some reason for the increasing number of college transients, those who leave and those who remain to go through the motions, although psychically displaced. Today's disillusioned students keenly resemble another set of nomads Gertrude Stein labeled "the lost generation." The exiles of the 1920's dared to question the generation that fathered them by challenging the structures of the past. The great world war had jarred them sufficiently to encourage their quest for a more meaningful identity for themselves as well as for their nation.

Not unlike the transient of the 1920's, America's college student, faced with the inevitable disillusionment in the wake of the realities of a new war and the college experience, awakens to a new and unlooked for challenge, an identity crisis:
Having had their original hopes proved illusory, freshmen must improvise. They must work harder than they ever have before, and they find it personally expedient to accept an ethic of identification with their work. They must "know who they are" because their unfamiliar experiences would leave them shaky and insecure without such improvised "knowledge."  

Improvisation is always dependent upon the production of new and original ideas in order to facilitate problem solving. Releasing creative potential is perhaps the most functional way for insuring the success of improvisation. The college student faced with the task of improvising in an attempt to locate his **terra firma** is thrust into a dilemma which the college can either ignore, intensify, or help resolve. Whether it has "arrived" and is cognizant of which of the three alternatives it will choose is questionable.

Like the student who is undergoing stress, the American university is likewise bitterly torn between two opposing philosophies regarding its role in facilitating student growth. Albert J. Sullivan, an assistant professor of public relations, Boston University, expresses the dilemma accurately:

> The function of leadership may be conceived as in tension; it would thus consist of maintaining equilibrium between two polar processes, the one pulling toward change, the one pulling against change. The one process toward change, we may characterize as creativity; the other process, resisting change, as conservatism.  

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When the college student attempts to use his creative capacity, he must be afforded a degree of confidence, not asked to follow a prescribed routine which allows for only one solution, the right one. Sullivan blames the traditional classroom with its syllabus approach, its faithfully followed text, and its controlled discussion, and the budget-oriented administration for the prevention of what he considers the essence of creativity, the right to fail.  

The plight of the college student faced with the dilemma of fashioning for himself a new life is heightened by the adaptive role he is asked to assume, a role which is the least individualized of any. The psychological potency attached to the moment of decision early in the college experience as to what role is to be assumed is of great significance. That period of great change contains personal stress and a unique spark which may be missed or go without utilization. Figures in one study tend to support the assertion that the current academic-intellectual program of the college has a strong intrinsic interest for no more than a quarter of the students. The developmental crisis the student finds himself in as a result of his absence from home, his academic requirements

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28 Ibid., pp. 193-194.


and role expectations, and his new peer culture will result in some regressive or defensive strategem unless the college itself can offer an opportunity or impetus for the student to resolve his own predicament. And since perhaps only a quarter of the students find the college program intrinsically valuable to their own needs, it is understandable why many leave or develop a four-year adaptive role which temporarily removes them from the throes of resolving an identity crisis.

Creativity as an Historical and Continuing Goal

Why have the goals of higher education strayed so far from the belief in the development of the individual, which is inseparable from the creative impulse? The basic assumption that cultivation of the creative potential is essential to the growth of the individual has not just recently been recognized as an educational goal. What we call the creative function is actually the final metamorphosis of what the Greeks referred to as paideia. A return to the archetype reveals much as to the ideal toward which a true education is directed.

The creation of any ideal is surrounded by all the secrecy and wonder of birth; and, with the increasing danger of degrading even the highest by daily use, men who realize the deeper values of the human spirit must turn more and more to the original forms in which it was first embodied, at the dawn of historical memory and creative genius.

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32 Ibid.
Plato and others conceived of education as a process of shaping character in accord with an ideal of human personality. That ideal of developing men to achieve the highest potential of which they were capable was firmly established by the time of Isocrates and Plato.\(^3\) In America, nineteenth century romantics such as Thoreau and Emerson refer repeatedly to the necessity of tapping the creative reservoir to assure individual growth and development. Though their works are of more value to the literary critic, the educationalist can find some evidence in their writings which attests to the belief in creativity as the key to unlocking individual growth. Thoreau, criticizing the education of his day, writes that students at best learn where the arsenal is in case they would ever want to use any of its weapons, all the while hoping and expecting to be genuinely "affected" by what the instructor says.\(^3\) Emerson stated it even more forcefully:

\begin{quote}
We teach boys to be such men as we are. We do not teach them to aspire to be all they can. We do not give them a training as if we believed in their noble nature. . . . We aim to make accountants, attorneys, engineers. . . .
\end{quote}

Professors are often most disposed toward, and prepared for, making students specialists like themselves. The legacy left American higher education by the writers of the past is not

\(^{32}\)Ibid., p. 286.


\(^{35}\)Ralph Waldo Emerson, Education (Boston, 1909), p. 10.
one to deny the place of individualized development. Yet something has intervened and stifled what once was considered paramount. What was its origin and how has it come to manifest itself?

The answer to the first question lies in an appraisal of the American culture itself. "It is obvious that the eventual course of creativeness is greatly influenced, like that of curiosity, by the incentives and motives current in a culture." 36 Since the arrival of the atomic-space age, the American society has been pressured by the spirit of national competition to delineate quite specifically what educational requirements are necessary to fill the new roles created by the new technology. The resulting position taken by the American culture towards education is one which favors intellectual conformity; "... to accept, not to question; to absorb, not to doubt." 37 Such apathy towards individual, creative development, which is not a prescribed routine of accumulating knowledge, will be regenerative if the emphasis towards acquiring continues to hold precedence in our society over inquiring. Along the same lines, the American intellectual, who is certainly the creative man in full bloom, has held a mysterious and unique threat to the American society

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for some time. When the science technology race began with Russia in the mid-1950's, the bell was sounded and the order issued for American education to take responsibility for closing the gap. At the same time many American intellectuals were wary of the devaluation of those who sought inquiry for the sake of individual development rather than the production of space vehicles. Arthur M. Schlesinger called on the American public to cease regarding the "free inquirer" as a threat and to call a halt to the "... unAmerican attempt to convert Americanism into dogmatic orthodoxy."

Amid the pressures of entrance into college, the student will often find it the safest, most expedient path to limit his personal, intellectual exploration to the matter mandatory for the acquisition of the degree. Such conformity usually inhibits the creative impulse and stifles true individual growth. "If we wish to educate individuals to think creatively, for and by themselves, intellectual conformity must be eliminated as an educational end product."

Student Dissonance

It has come as a shock to most of the American public that there are students angry enough to demand by less constructive means that which they would have. Although

39Bedrosian and Jackson, p. 385.
creativity often involves the use or even destruction of what is present and the development of something new out of it, there must be no room for wrecking and demolishing the structural foundations of higher education to insure its cultivation. Dewey cautions against forming philosophies of education merely by proceeding negatively, or by reaction against what has been traditional. Yet Dewey does not say that disturbing the equilibrium of such institutions in the name of student growth is injurious. Though the methods of some student groups are deplorable at times, their objectives are often worthwhile. Their cry for freedom is particularly in keeping with the need for creativity in higher education. Creativity and freedom are inseparable. The student quarrel with the academic administration is also well grounded when considering the fact that often those who get the administrative jobs are seeking operational efficiency rather than the toleration of some ambiguity in the name of meeting student needs.

... when operational efficiency is a high-priority objective, those who will be attracted to the organization are individuals who are intolerant of ambiguity and whose habits give evidence of personal efficiency.

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The role of the outside culture may determine whether the academic community will at last permit some flexibility in this regard and tolerate some change at the risk of disrupting momentarily its operational efficiency.

The activist revolution of the mid-1960's has made for interesting speculation and a new dialogue on campus. A history of its evolution and progress is not vital to this study, but implications for higher education which have grown in part from the movement do bear careful consideration. According to Katz, the movement makes a primary contribution to the belief in reforming higher education.

Conceivably, the relationship between educators and educated is in the process of redefinition, with the students participating to a much greater degree than in the past. It may result in a change in who determines what about educational content, but also an earlier assumption of autonomy by the young—a redefinition of the role of the student, in which he is integrated into the work, social, and political processes of society in an active manner, rather than being primarily a tacit consumer of culture, developing academic or social skills for later use.43

For higher education to deny the import of the activist movement would be to deny a representative segment of creative people the responsibility of calling for improvement. Many of those students who took part in the early student movements at Berkeley were given special tests to determine their intellectual and social characteristics. It is interesting

to note that the men and women arrested scored significantly higher on scales which measured characteristics usually ascribed to the creative: Social Maturity (autonomy, flexibility, capacity to relate well to other people), Impulse Expression, Estheticism, and Developmental Status. For the most part, higher education seems to be confronted by a revolt led by creative, intellectual people, who, having found their complaints laid aside in the past, have brought them into public prominence by sometimes employing methods which this society does not nor can tolerate. The resultant furor and controversy is not to be resolved by bayonets, imprisonment, or conservative action. If the activists have touched the Achilles heel of higher education, that vulnerable region must be administered to, after analysis and perhaps a redefinition of purpose.

The Appeal of Creative Education

Creative higher education can offer the contemporary college student an attractive challenge. The fact that so many are unhappy with present college offerings has been discussed above. Whatever is suggested as an alternative to hold this generation must have some intrinsic appeal. It is likely that the appeal of creative higher education lies in its insistence that the student utilize and develop that which makes him different from all the other students.

Ibid., p. 394.
A constant complaint heard from many college students is that there is no real demand on them to do more than replicate what their professors offer them. Creative education requires that the student activate his own potential rather than reproduce the findings of another. The identity crisis referred to earlier is only prolonged so long as the student is not required to use his own resources in order to gain course credits. A creative experience involves freeing the individual's inner resources, respecting those resources, and helping to articulate the findings. The resulting demands of such a process on the student may at first appear frightening to that student, but its underlying demand for uniqueness and spontaneity is directly associated with what many young people are seeking. The increasing use of drugs on campus is but one example of the student's desire to escape the restricting, narrowly cognitive accent which prevails in much of higher education. It is an indictment of our society when its youth can only "find themselves" through the use of mind expanding drugs. Creative education can supply the incentive and opportunity for students to explore the recesses of their identities by providing for creative thinking and its verification.

Students are arriving at college today far more advanced intellectually and socially than they ever have been. They have, placed at their disposal, the combined knowledge and resources of a progressive republic. They are seeking more
than new content; they are asking for some challenge which will require of them an individual response to that which they have accumulated over the preceding years of public school training. Presently, college students are learning more and more but are not being asked to integrate that which they know through some form of individual expression. Creative education would hold a distinct appeal for the college student because it would require him to respond as an individual, a separate entity apart from the mass surrounding him.

Academic Dissatisfaction

Professional writers within the field have formed two camps of thought regarding the future of higher education. The polarization of opinion has come in the last five years, with one school convinced of the total promotion of what Kerr labeled the "multiversity" in 1963, and the other school of opinion in reaction to Kerr, calling for a return to the traditional idea of the college as a promoter of personal inquiry, rather than a public utility. Since the future of creativity in higher education is dependent upon the outcome of this struggle, a look at the implications for creativity from both camps is in order.

Kerr's articulation of "multiversity" has awakened many to the enormity of the problems in American higher education and has done as much as any theory to create a distinct schism in the planning as to how those problems are to be met in the
future. Overcome by the complexity of what he sees, Kerr succumbs to the "organism" he is describing by defining it as a "... a mechanism—a series of processes producing a series of results—a mechanism held together by administrative rules and powered by money."45 Since the publication of The Uses of the University, many writers have asked whether Kerr may not have been too hasty in bidding farewell to the idea of a liberal education, which, for many, had its modern day origin in a book by Cardinal Newman, The Idea of A University, of which Kerr's title is a pointed variation. The precipitating effects of The Uses of the University on the Berkeley campus are well known. Ray expresses the student reaction to the book:

He had shown with inescapable charity how completely the social frame had splintered and become part of the university picture. The student's comforting illusion that, despite all their irritations and disappointments, they somehow remained the university's raison d'être, could no longer be maintained in the face of this demonstration.46

Some of Kerr's beliefs about the modern university have particular bearing on whether creativity and individual development will be among the objectives of the multiversity. A sampling of some of his major contentions follows:

45Clark Kerr, The Uses of the University (Cambridge, Massachusetts, 1963), p. 20.

1. The academic influence the student has lies in his determining in which areas and disciplines a university will grow.\textsuperscript{47}

2. Coexistence in the American University is more likely than unity.\textsuperscript{48}

3. Research has become more important than teaching.\textsuperscript{49}

4. A prime justification for the multiversity is that it represents a consistency with the surrounding society.\textsuperscript{50}

The above statements are representative in that they reveal Kerr's disposition towards future higher education. The dramatic implication for this study is that only a small fraction of The Uses of the University is devoted to the student and his development. The multiversity's function as utilitarian provider for its society is perhaps educationally feasible, so long as it places first the provision of individuals who have realized their creative and intellectual capacities, and places second the lure of industry, the federal grant, and the correction of society's social injustices.

Although Kerr contends that Newman's Idea of A University was dead by 1930 and his universal liberal man gone forever, there are educators in the other camp who clearly contend that a return to the older notion of educating the individual,

\textsuperscript{47}Kerr, pp. 21-22.  
\textsuperscript{48}Ibid., p. 36.  
\textsuperscript{49}Ibid., p. 42.  
\textsuperscript{50}Ibid., p. 45.
"... to reach out towards truth and to grasp it ..."\(^{51}\)
is higher education's most hopeful recourse. The immediacy of the problem of determining the college's course for the seventies is obvious. The American public has a vital stake in what will result when the debate ends. One writer in the field, Otto Butz, sees the present student discontent as seeming ". . . to express an enlarged conception of human freedom and an enthusiasm for ideologically uninhibited experimentation of which America at the present juncture of its history stands badly in need."\(^{52}\)

To accept Kerr's multiversity as the answer to finding an enlarged conception of freedom on the campus would be fatal. The clarity of his vision concerning the future of higher education is no better than it was in 1959, when he stated: "The employers will love this generation; they are not going to press many grievances. . . . They are going to be easy to handle. There aren't going to be any riots."\(^{53}\)

In the midst of the present confusion about the role of the modern university, two books have appeared recently which attempt to describe the status of the modern university, its future, and some recommendations for improving it. One of


\(^{53}\)Quoted in Jack Newfield, "Revolt Without Dogman," Motive, XXVI (October, 1965), 21.
the authors, Jacques Barzun, a dedicated scholar-educator, in his book *The American University: How It Runs, Where It Is Going*, believes that perhaps all that is needed is for the American public to be confronted once again with the "idea" of the university, not its uses, so that the renewed conception might reach those in charge of the universities and remind them where the truth lies.  

A more belligerent critic of the new university, James Ridgeway, believes the university has become a public utility; "... the university looks more like a center for industrial activity than a community of scholars." If, as these two writers point out, the American university has postponed its encounter with students and their needs and has become the society's Santa Claus, the fate of creative higher education for the student is doubtful. A look at the major contentions of each author will serve to point up the trend in that direction.

Quoting Newman in his preface, Barzun provides a subtle rebuff to Kerr's contention that the traditional "idea" of the university was overthrown by the "uses" of the multiversity of the 1960's. (The Newman belief appears to be a major focus in the debate.) The university "idea" has been replaced by a bewildered and bewildering giant. "A big corporation has replaced the once self-centered company of

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scholars and has thereby put itself at the mercy of many publics, unknown to one another and contradictory in their demands.\textsuperscript{56} The role of the teacher in the new university is also one which loses its former position and much of its prestige.

In other words, the flight from teaching is a fact but, apart from the singular laziness or escapism of a few, it is a cultural fact. To put it in still another way, the new university is the product of the new society and the flight from teaching is the by-product.\textsuperscript{57}

Barzun's comments concerning the modern student are especially revealing. Having been born into the "system" and realizing "intense claustrophobia," the student who makes it through the university experience and finds "life" at the end of the tunnel looking no different than that which he has had to endure in order to qualify to get there, revolts, a reaction Barzun labels as a healthy instinct.\textsuperscript{58} The "scholar in orbit," as Barzun calls the university professor, has caused the student to see and resent the fact "... that teaching is no longer the central concern of the university or of its members."\textsuperscript{59}

Ridgeway's criticism is equally as devastating in charging the multiversity with becoming a supra-government, a new center

\textsuperscript{56}Barzun, p. 3.
\textsuperscript{57}\textit{Ibid.}, p. 54.
\textsuperscript{58}\textit{Ibid.}, p. 65.
\textsuperscript{59}\textit{Ibid.}, p. 69.
for industry, and a "conglomerate corporation on its own." Ridgeway's "closed corporation" is far more interested in government contracts, running an airline, a couple of hotels, a timber-producing forest, a spaghetti factory, and producing the world's leading rat poison, than it is in teaching classes of undergraduates, which the professor views as "... not especially interesting compared to working on the outside in one of the new companies." The university's involvement in Viet Nam particularlyannoys Ridgeway. Stanford University rewrote its regulations in order to embrace a new four-million-dollar secret research grant in its electronic laboratory; Cornell designs more effective bombs; Princeton runs conventions for the Central Intelligence Agency; Michigan works in counterinsurgency and photo reconnaissance; and Pennsylvania and fifty other universities have recently been involved in research in methods of chemical, germ, and biological warfare.

The fact that the American university conducts research into these areas may not be reprehensible in itself, although some believe it to be so. What is reprehensible is the priority not given to the student, and the university's placing such priority in non-student-oriented areas. Thus, the complexity

60 Ridgeway, p. 13.
62 Ibid., pp. 125-150.
of the multiversity stands in the way of creative higher education for the individual student. The recourse, according to Barzun, is to simplify, "To keep a university in a time of centrifugal skedaddling, the slogan throughout must be SIMPLIFY." A return to the central concern of the traditional university, the student and his development, is a necessity. There is a need for creative higher education which gives this concern highest priority.

Summary

If American higher education is to promote creativity, it must first attempt to regain its primary purpose for being--individual development--by encouraging and rewarding the inquiring student rather than the acquiring student. The origins of creative education are to be found in the writings of the ancients who stressed the value of individual growth. Those objectives have been somewhat diluted today by the demands of a society requiring fact oriented students. In response to these demands, many discontented college students have expressed the desire to change the prevailing structure. Creative education holds an attraction for these modern students because it requires of them unique, individualized expression. The future of creative higher education is to be found in the outcome of the struggle growing out of present academic dissatisfaction.

63Barzun, p. 249.
The Status of Freshman English Composition

No one quarrels with Muller's statement that English is what English teachers teach; yet many are concerned over one phase of the college English program which has become the most undefinable, unwanted stepchild in higher education—freshman composition. According to Mary Whitten, co-editor of one of the most used freshman English textbooks in America today, a number of scholars contend that if freshman English is to survive it must find some new ways to justify itself.

Since freshman English first entered the curriculum as a required course at Harvard in 1895, no one seems to have been able to justify its "required substance" for any sustained length of time. Not only has it become an incubus subject for those who seek to understand its nature, but college professors of English are becoming less timid in damning it as being beneath their dignity to teach. McNeir sees freshman English as a laborious undertaking from which senior professors, because of their rank and research duties, deserve to be exempt. Added to its two heavy burdens—being an apprenticeship course taught by novices and a course

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65 Statement by Mary Whitten, North Texas State University, Denton, Texas, October 14, 1968.

whose purpose and content have never been clear—is yet another incumbrance: students generally fear and detest it. A three-year research project at Wisconsin State University, Platteville, revealed that nearly 80 per cent of the students indicated overt fear of the course. Thus, no one knows what freshman composition is; few want to teach it; and those who are required to take it usually detest it. Why does it remain entrenched in college curriculums across the country? Though a few schools have boldly moved to have freshman composition dropped, the general feeling exists among professionals that the course should be retained. Only four of the sixty schools represented at the 1968 College Composition and Communication Workshop were even considering dropping freshman composition. The strong call for abolition of the course issued by Rice in 1960 has lingered to tempt many administrators and English department chairmen who envision no more staffing problems and many freed, contented literary specialists. In an attempt to determine the status of freshman composition, the following will include discussions of the major influences on the teaching of freshman composition


since World War II, major studies in freshman composition during the last ten years, and recent research and experimentation.

Like no other course in higher education, freshman composition has been assaulted and changed since World War II by at least four new approaches which eventually ran their "course" and vanished almost as quickly as they appeared. Their comings and goings are mute testimony to the precarious nature of freshman composition. Tibbetts' statement that "... teachers of composition have had to endure an extraordinary amount of dogma and nonsense that has been sprayed over the composition course by the theologians of communication" reflects the general amusement of those who have witnessed the course's susceptibility to the parade of educational panaceas. During the last ten to fifteen years, whole new programs in freshman composition have mushroomed under the separate covers of semantics, communications, linguistics, rhetoric, and literature. Brief descriptions of the birth and progress of these approaches to composition will permit some understanding of the chameleon-like character of the course.

Semantics flowered early in the 1940's and offered the writing teacher a new approach built on the "science" of words.

70A. M. Tibbetts, "A Short History of Dogma and Nonsense in the Composition Course," College Composition and Communication, XVI (May, 1965), 90.
The leading prophet of the movement was S. I. Hayakawa, whose *Language in Thought and Action* served as a source book for advocates of the semantics-composition course. As Tibbetts points out, Hayakawa and the other semanticists made the fatal error of the dogmatist—they claimed too much in attempting to weld the other disciplines of linguistics, philosophy, cultural anthropology, physiology, neurology, mathematical biophysics, and cybernetics under one grand set of principles applicable for teachers of freshman writing. Kitzhaber also commented on the difficulties of the approach when he stated "... for a decade college freshman pored over the 'abstraction ladder' and learned that cow₁ is not cow₂ is not cow₃." Articles calling for the use of the semantics approach appeared as late as 1958. Though the semantics course has not been used extensively in the 1960's, its concern for accurate and precise diction remains.

Usurping the semantics theory of composition was the idea of a communications course. Kitzhaber dates its origin in the mid-1940's. Generally, the communications course

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72 Tibbetts, p. 90.


75 Kitzhaber, p. 74.
sought to acquaint the student with the many and varied means of communication and make him proficient in listening, reading, writing, and speaking. As might be expected, the communications approach met with a rather vigorous reception but weakened quickly under a barrage of criticism from the teachers. DeMordaunt pointed out that the pitfalls in this approach to teaching writing are possible deterioration of the language and reduced teacher effectiveness resulting from attempting to focus on too many subjects.\textsuperscript{76} Tibbetts was especially critical of the approach.

To the simple three-hour writing course an army of pedagogues added speaking skills, reading skills, listening skills, studying skills, and using-audio-visual-aids skills. . . . For the experimentally minded it was the best of times. There were clinics, reading labs, and speaking labs. A student could get his lisp removed at the speech clinic in the morning, and in the afternoon he might learn to read The Reader's Digest faster and faster. . . . There were Exceptional sections, Average sections, and Remedial sections. The remedial students were the lucky ones; they got most of the attention. It was not a good time to be bright.\textsuperscript{77}

Disillusionment in the course came quickly, and, as Kitzhaber pointed out in 1963, only a few of the communications courses survived out of the 200 that flourished during the bonanza year of the trend, 1948.\textsuperscript{78} A final blow to the already crumbling communications course was delivered by


\textsuperscript{77}Tibbetts, p. 91.

\textsuperscript{78}Kitzhaber, p. 74.
Lerch, who in a 1964 article listed what seems to be the definitive weaknesses of the approach: "... (1) a confusion of means and ends; (2) a vulgarization and cheapening of American culture; (and) (3) true wisdom or knowledge lost in the pursuit of information." 79

The "linguistician" made his dramatic inroad into freshman composition during the 1950's and promptly demanded a revolutionary change in the teaching of the course. 80 A principal doctrine of the structural linguists is that speech is language. Among their prophets have been Lloyd, Warfel, Fries, Roberts, Francis, and Harris. They turned to phonemics for the theory of function, preferring to regard a sentence not only as a sequence of words but even more as a sequence of functions. 81 They therefore favored extending the study of language through the study of sentence patterns and how they are developed. 82 Believing the student's mastery of speech functions a primary resource, the linguist teaches the student to make the "natural" cross-over into writing. On this assumption the linguist encouraged teachers of writing

79 John H. Lerch, "Communications Study: An Illusion of Purpose?" College Composition and Communication, XV (May, 1964), 149.


81 Ibid., pp. 207-208.

82 Ibid., p. 208.
to look with suspicion upon all current workbooks and handbooks as outmoded materials. The reaction from the traditionalists was quick in coming. Some writers in the field satirically welcomed the new theory on the grounds that at last English teachers could be afforded a place in that grand fraternity of men who carry the title of "scientist." "We English teachers are henceforth to be known as linguistic scientists and to be accorded full rights and privileges of the brotherhood."83 Scholarly journals of the 1950's and early 1960's are literally filled with attacks and counter-attacks made by linguists and traditionalists. Long offers a defense for the traditionalists by attacking the linguists' major premise and defending the word as the basic unit of written language.84 Kitzhaber affords the trend ten pages of calm analysis which concludes with the thought that linguistics will not prove a panacea for composition teaching.85 In his short history of dogma, Tibbetts concludes the section on linguistics with a clear denouncement:

The composition teacher can rightly complain that linguistics has been an intrusion upon his proper domain. In its intellectual aspects, the new grammar belongs in the graduate school, where


85Kitzhaber, p. 84.
like other closed philosophical systems, it can proliferate without reference to reality.\textsuperscript{86}

Though structural linguistics has ceased to be influential in college English at the freshman level, there are a number of elementary schools and high schools which have committed themselves irrevocably to the approach. As Schaedler points out, it is too late now, for public school administrators have "heard the magic word" and have sent their teachers back to the universities to take courses in linguistics.\textsuperscript{87} Such practice probably compounds the felony because, as linguistics advocate Fries points out, "Teachers can not be equipped to provide the 'applications of linguistic science' to the problems of teaching English by taking 'one or two courses' in linguistics."\textsuperscript{88}

The revival of rhetoric has brought yet another change in freshman composition during the past five or six years. When Booth made his appeal to the Modern Language Association members in 1964 to resume the study of rhetoric in freshman composition,\textsuperscript{89} not many people understood what was being revived or why. Approximately a year after Booth's talk in New York, Corbett published an excellent volume of research

\textsuperscript{86}Tibbetts, p. 94.

\textsuperscript{87}Schaedler, p. 114.


which attempts to explain classical rhetoric and its relevance for modern writers. In the preface to that book, Corbett expresses his intentions:

... the author believes that the elaborate system of the ancients, which taught the student how to find something to say, how to select and organize his material, and how to phrase it in the best possible way, is still useful and effective—perhaps more useful and effective than the various courses of study that replaced it.91

Several years later, because of the rising cry for rhetoric in all composition courses, Corbett presented a condensed survey of the rhetorical tradition in order to again explain "... what rhetoric once was, what it became, and what it might become."92 What Corbett and other rhetoricians revealed was that there is no one rhetoric but that there are many variations of the ancient theory. The modern rhetoricians who have advanced innovative variations of the classical rhetoric are I. A. Richards, Richard Burke, and Francis Christensen. A brief glimpse at what each of these is promoting will attest to the complex variations growing out of the classical theory advanced by Aristotle. Richards tackled "how words work" and how, if used improperly, they are the chief cause of misunderstanding.93

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91 Ibid., p. vii.
Thus, for Richards, the chief target for the teacher of rhetoric-composition is the single unit of communication—the word. Burke, on the other hand, is somewhat closer to Aristotle's prescriptions in that he is far broader in his definition of the function of rhetoric. As Schwartz points out, Burke's thinking reflects a more sociological view of things.94

. . . we confronted the nature of rhetoric as addressed to audiences of the first, second, or third person. Socialization was, in the widest sense, found to be addressed . . . we found that rhetoric involves us in problems related to . . . ethical promptings and the like. And in the course of discussing these subjects we found ourselves running into another term: persuasion. Rhetoric is the art of persuasion available for any given situation.95

Christensen's contribution has been the rhetorical approach to writing popularized under the title of "generative" rhetoric.96 According to this theory of rhetoric, the mere addition of qualifying sentences or ideas "generates" newer ones and thus adds denser, more richly textured writing.


The term "generative"--in the phrase generative rhetoric--may be taken to attribute creative power to language forms and structures. "The mere form of the sentence," Professor Christensen says of one of his sentences, "generates ideas." Or it may attribute creative power, at a farther remove from the structurally analyzed composition, to some other mental focus in the writer's activity. Certainly, the formal relationships of language structures, engaged the mind, may be "generative" in the sense that they stimulate a writer's mind.97

The resurgence of a rhetoric based composition course has resulted in valuable opportunities for English teachers to sit down and discuss their "art." Rhetoric conferences have been held at all the College Composition and Communication and Modern Language Association meetings as well as on university campuses since the early 1960's. Murphy has suggested that what has emerged from the new interest in rhetoric is a general rhetoric structure which is divided into four parts: (1) rhetoric as a subject with a history; (2) rhetoric as theory without relation to time; (3) rhetoric as a set of formulated precepts; and, (4) rhetoric as recognizable structure in literacy—all sharing the common characteristic of order.98 It appears that if rhetoric is to remain and not wane, its purpose and application must be articulated further and the imprecision and looseness concerning its nature removed.


A final change in freshman English must be included, a change
which reflects a noticeable trend in the past few years. In
lieu of freshman composition, some schools have begun offering
freshman literature and removing the formal study of writing
entirely. Although the National Council of Teachers of
English's report, The National Survey of Undergraduate Pro-
grams in English, will not be available until the late fall
of 1969, Thomas W. Wilcox, the man in charge of preparing
the report, has offered interesting statistics concerning the
direction of freshman English. He reports that 23 of the 61
departments of English he visited have freshman courses devoted
entirely to literature. Since these figures appear to con-
tradict the confidence placed in freshman composition by the
college composition and communication workshop members who
met in 1968, there is great doubt that anyone at this time
can predict with confidence the future of the course. Neither
workshop members nor the schools Wilcox visited can be con-
sidered wholly representative. It appears ridiculous to
believe that anyone considering removing composition would
attend a composition workshop in the first place. Wilcox
himself warns against drawing too many inferences from his
figures since, as he states, "The sixty-one departments whose
members we have interrogated face-to-face are not typical;

99Thomas W. Wilcox, "Non-Serviam: The Reintegration of
English," College Composition and Communication, XVIII
(October, 1967), 148.
they are exemplars, nominated by experts who considered them exceptional or worthy of special attention."\textsuperscript{100} The ultimate direction for freshman English in the 1970's is yet to be determined.

Although freshman English has received far less attention than other English subjects, several significant studies have appeared in the past ten years which signal a change of interest and an enthusiasm for the critical study of the freshman level course. Like many other subject areas in American education, English reacted to the knowledge "race" instigated by the Russians (the A-bomb in 1949 and Sputnik in 1957) by challenging itself to compete with the sciences which were suddenly considered "critical" subjects. The crucial Basic Issues Conference of 1958 resulted in a re-examination of the whole subject field. "Some of us in the profession believe that a thorough re-examination of the whole problem of the teaching of English \ldots is now imperative. We think that as an initial step we need a clear formulation of the Basic Issues confronting us.\textsuperscript{101} One of the 35 statements in the report asks the question, "Can the teaching of composition be raised to the same level of academic respectability as the teaching

\textsuperscript{100}\textit{Ibid.}, p. 148.

of literature?" The conference was responsible for initiating new interest in English and subsequent research which led to federal action. In 1961, Congress granted Commissioner of Education McMurrin funds for the study of English, which in turn gave birth to Project English. "Project English in its initial form included three kinds of activity: research planning conferences and seminars, basic and applied research projects, and Curriculum Study Centers." The accomplishments of Project English have not been dramatic, but some believe that because of its efforts to discover a defensible structure and sequence for English, it has indeed produced a "New English" worthy to stand alongside the "New Math" and "New Science." In 1963 Albert R. Kitzhaber published Themes, Theories, and Therapy: The Teaching of Writing in English, which is perhaps the most reliable volume to date on the teaching of composition in American colleges and universities. The book grew out of a study of the writing of college students at Dartmouth. After discussing the teaching of composition in college, the composition program at Dartmouth,

102Ibid., p. 10.
104Ibid., p. 137
105Ibid., pp. 135-141.
106Kitzhaber, Themes, Theories, and Therapy, p. ix.
and the past "panaceas" for freshman composition, Kitzhaber makes several recommendations for freshman writing which have become valuable guidelines for curriculum makers ever since. William Riley Parker's research into the origins of freshman English has provided perspective for those now involved in determining the fate of the course. Muller's *The Uses of English* represents a sequel to the Kitzhaber study in that it grew out of another Dartmouth study, the Anglo-American Seminar on the Teaching of English, and attempted to present new guidelines for the teaching of English. In the section entitled "Writing and Talking," Muller stresses the importance of the student's writing for someone other than the teacher (the other students), the negligible effect the study of grammar had on writing, and the thought that the British concern for more creative writing might be considered by American teachers more than it is now.

The most recent study which sets out to assess the current status of English is Michael F. Shugrue's *English in a Decade of Change*. Shugrue reviews the progress of English since the Basic Issues Conference and through the influences of the Dartmouth Study reported in

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107 William Riley Parker, "Where Do English Departments Come From?" *College English*, 28 (February, 1967), 339-351.
108 Muller, pp. v-vii.
The last decade has indeed been one of great change, and the study of English teaching has reflected that change and the dynamic search for meaning in higher education. The varied research efforts in English listed above attest to that search.

The interest in improving English teaching has created a research-experimentation boom which is being regarded with some misgivings by many in the profession. Apparently, many individuals affiliated with any branch of the humanities dislike the intrusion of science into what they regard as art. Though the resulting products of dedicated writing may be regarded as art, the facilitation of that art through education does lend itself to close and careful scrutiny. Yet many English teachers are still reluctant to do more than admit the need for better teaching. A National Council of Teachers of English publication of 1963, Research in Written Composition, an extended report by Braddock, Lloyd-Jones, and Schoer, has received adverse criticism from several authorities. Tibbetts regards the conclusions reached in the study as rather gloomy returns for the taxpayer who afforded the work $18,000.112

Reviewing Research in Written Composition for College Composition and Communication, Rosegrant states, "The testimony of their book indicates that it is unlikely that the obscure..."  

111 "There Is a New English, But College Courses Don't Change," Phi Delta Kappan, L (March, 1969), 417.
112 Tibbetts, p. 95.
struggles of students and teachers endeavoring to master the art of composition will be illuminated by Chi-squares, F-ratios, or t-tests."113 Another reviewer pointed out the work's shortcomings but hastened to add that "This modest book will surely hasten the day when good research on vital problems will no longer be a rarity."114 The future of research in written composition does appear much brighter since the Dartmouth Study of 1966 and on the eve of publication of the Wilcox survey.

The confused status of freshman English reflects the changes which have come in teaching the course over the past twenty years. The panaceas which have been implanted to salvage the course have not succeeded in warranting for it lasting academic dignity. Though the need for producing effective freshman writers still remains, the course designed to bring about that end continues to baffle curriculum makers.

Robert M. Gorrell, in The College Teaching of English, writes that although the pressures are mounting to remove the freshman level course, the fact remains that freshman composition is perhaps the last stronghold for intimate


student-teacher communication. Not only is freshman composition a stronghold, but it is the key to unlocking the creative potential of each student and promoting the crystallization of new ideas through written composition. In order that this hope can be realized, a new course must be designed which will draw heavily for its construction from writings on the nature and promotion of creativity. A leading authority on the subject, E. Paul Torrance, believes the design and use of such a course to be significant, and, furthermore, states that to his knowledge there has been no previous effort in this direction on the college level.

In the December, 1968, issue of the AAUP Bulletin, A. M. Tibbetts, assistant professor of English at the University of Illinois, offers a proposal for a new college course in thinking and writing which would supplant the old freshman composition course. In an attempt to salvage the benefits of a beginning writing course and offer a new justification for its presence, Tibbetts suggests that in these times of great political, social, philosophical, and religious upheaval the new course could center its attention upon "... the main


116 Letter from E. Paul Torrance, University of Georgia, October 10, 1968.
purposes of the university; finding, reasoning about, and stating truths."\textsuperscript{117}

A strong freshman composition course that seeks original thought and its articulation through good writing would not only save a part of the curriculum but would substantiate greater interest in the future study of English. W. F. Belcher, head of freshman English at North Texas State University, feels that one of the greatest benefits or liabilities of a course on the freshman level is the attitude the student has toward that subject field after the completion of the course.\textsuperscript{118} Can that attitude be positive if freshman composition instructors continue the traditional approach of assignment-essay, grading-revision, bell-saliva, mechanistic procedures that neglect the cultivation of the process that contributes to the substance of the essay?

\textbf{Procedures for the Development of the Experimental Course}

The following will be the procedures employed for the remainder of this study:

1. A survey and summary will be made of scholarly writing upon the topic of the need for higher education which encourages


\textsuperscript{118}Statement by W. F. Belcher, North Texas State University, Denton, Texas, September 27, 1968.
creativity. An additional survey will be made of recent works concerning the current generation of college students in an attempt to understand their perspective regarding the role of higher education.

2. In order to ascertain the scope and meaning of the term creativity, a thorough survey and summary will be made of current works on the definition, process, product, and theories concerning the promotion of creativity.

3. A survey will be made of learned comment on freshman English composition, its history, present status, and objectives within higher education.

4. Finally, proposals for the new course in composition based on the above studies will be made. Recommendations for the new course will be consistent with the findings which accrue from the inquiry into the above areas, higher education, creativity, and freshman composition.

Procedures for the Survey of the Literature

Scholarly writing on the subjects of creativity, freshman English, and higher education is extensive. It would be impossible to synthesize all the information which has been gathered to date. The works on creativity, freshman English, and higher education appearing in this study were selected using the following procedures:

1. A general bibliography, constructed from available resources of the North Texas State University library, was
compiled on the subjects of creativity, freshman English, and higher education.

2. Entries in the bibliography were selected on the basis of the validity accorded them by contemporary writers in the three subject areas.

3. Entries in the bibliography were also selected on the basis of frequency of appearance in works in the three subject areas.

4. Although the information included in this study is by no means exhaustive, it was selected in an attempt to be representative.

5. Conclusions reached at the end of each section were derived from the resources selected for this study and are not intended to be definitive.

6. Conclusions reached will in turn lead to the development of a course in freshman English composition.
CHAPTER II

CREATIVITY: DEFINITION AND PROCESS

Introduction

The subject of creativity is treated in this chapter and the following chapter.

Definitions of creativity were gathered from sources selected for this study. A compilation of similar characteristics of those definitions selected was divided into four categories: person, process, ability, and product. The consensus definition suggested at the end of the section was composed by including the central belief from each of those four categories of definition.

The act of creativity was described by use of selected research material available in the sources, and emphasized the phases of preparation, incubation, illumination, and verification.

A Working Definition

The term creativity has come to be one of the most capricious and unmanageable of nouns. The fact that everyone who writes concerning innovation feels compelled to use the term in one sense or another adds to its variety of purposes and meanings. Several writers have concluded that the very
use of the word admits of confusion of intent. Commenting on the overuse of the word, Barzun believes its common usage is an attempt to avoid the discipline of more precise diction and to avoid the responsibilities of feeling and thought.\footnote{Jacques Barzun, "The Cults of 'Research' and 'Creativity,'" Harper's, 221 (October, 1960), 73.} Denying its relevance in describing the unique experience of individual creation is by no means a solution. Although the validity of a single definition is questionable, the bulk of the definitions offered should be reducible to at least a consensus meaning, functional for this study. The following represents such an attempt.

The most cogent definitions of creativity fall generally into four categories: the person, the process, the ability, and the product. Creativity may be defined from the standpoint of the person who creates. Usually this definition concerns itself with the attitudes, temperament, habits, and characteristics of the creating person rather than with that which he is doing. That it is a uniquely human activity seems unquestionable. It is perhaps all that can be gleaned from the definitions of creativity in terms of an individual.

Secondly, that the person has the capacity or ability for creativity seems generally agreed upon. Many interpret this ability differently. According to Ashby and Bassett creative ability is defined as ". . . that ability by which the ideational content of past experiences is utilized in a
situation to provide concepts and actions not directly evoked by the new situation, but elaborated by the patient's more complex cerebral reactions to the situation." The emphasis in this definition is on the capacity to use the past in order to meet the needs of the present. Fromm describes the creative ability as that which enables one to see or to be aware and to respond. Drevdahl defines the creative ability as

... the capacity of persons to produce compositions, products, or ideas of any sort ... essentially new or novel, and previously unknown to the producer. It can be imaginative activity, or thought synthesis ... not a mere summation. It may involve the forming of new patterns ... derived from past experiences ... transplanting of old relationships to new situations ... the generation of new correlates. It must be purposeful or goal directed ... need not have immediate practical application or be a perfect and complete product.

The above three definitions of creative ability were selected because they are representative and contain what appear to be the generally agreed-upon characteristics of what that ability is: (1) the creative ability produces novelty; (2) the creative ability is dependent upon perception or awareness of both past and present; and, (3) the creative ability originates in cerebral activity.

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Thirdly, creativity is defined as process. The definitions which concern the process involved in the creative act are the most numerous in the literature. A sampling of the most representative of these follows. One of the most quoted authors on the subject, Ghiselin, offers a general, comprehensive explication of the process: "The creative process is the process of change, of development, of evolution, in the organization of subjective life."\(^5\) Also stressing the factor of organization, Rhodes defines the process: "Isn't creativity, in simple language, the process of reorganizing knowledge (general or specific), and of articulating that synthesis so that other people can understand the meaning?"\(^6\) It is significant that Rhodes includes the belief that the articulation of reorganization is necessary. (This belief will be treated more completely later under the heading of verification.)

Koestler has coined the term "bisociation" to make a distinction between the routine process of thinking and the creative process.\(^7\) His formula for bisociation warrants careful examination. "The sudden bisociation of a mental event with two habitually incompatible matrices results in an abrupt

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transfer of the train of thought from one associative context to another." In other words, the creative act operates on more than one plane, between two thought fields which are not in equilibrium, and manifests itself in a transfer to another context which may be new to the creator. Koestler's entire volume on the act of creation is one of the most impressive in the literature. In keeping with Koestler's idea of bisociation is a definition of process by MacLeod, who "... define(s) creation as a recombination of previously existing elements. ..." Both Koestler and MacLeod have suggested what was at the heart of the process, yet since no one has to date been able to really inspect the phenomenon itself, there is a danger of imposing a theory of process before that process is truly known. Until that time no definitive definition of creativity as process can be offered. However, from what has been introduced in the literature, a definition of creativity as process makes these distinctions: (1) the process involves organization or reorganization of existing knowledge; (2) the existing knowledge is held in incompatible thought matrices; and, (3) the juxtaposition of the two or more matrices produces a mental transfer to a new context, the new context becoming the product of the process.

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8Ibid., p. 59.

Creativity is also defined in terms of its product. When an idea becomes embodied in a tangible form, a written phrase, a spoken thought, or a visible artifact, it can be spoken of as product. The hallmark of the creative enterprise, according to Bruner, is that its product is effective surprise, a privilege realized only by prepared minds, "... minds with structured expectancies and interests." The idea that an expectant mind is surprised appears contradictory, yet the expectancy involves the anticipation of reward which accrues from goal striving. That the product fulfills the mission of the creator is in accord with the views of many writers who see the goal of creativity as solving problems. Thus an appropriate response to a problematic situation would be one product of creativity.

For some, then, creativity is man's urge to actualize himself through his ability to produce a new and useful combination. In such a definition of creativity as product there is some value judgment. For the purposes of this study, the value to the individual producing the product will be positive if he determines that it is either useful, tenable, or satisfying. Creativity in terms of product can thus be defined as having these characteristics: (1) the product is novel or comes as a surprise; (2) the product manifests itself

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10Jerome S. Bruner, "The Conditions of Creativity," Contemporary Approaches to Creative Thinking, pp. 3-4.

as either written idea, spoken idea, or tangible artifact; and, (3) the product resolves some conflict, and its measure of value is dependent upon the degree to which it is useful or satisfying to the producer.

The preceding partial definitions of creativity in terms of person, ability, process, and product testify to the complexity of the phenomenon itself. There can be no unitary definition. The definition which follows develops from an understanding of the above four categories of definitions and from the desire to establish a single, functional definition for the purpose of this study.

Creativity is a human mental ability characterized by a process which reorganizes existing knowledge to produce a synthesis which is novel to the producer, which usually resolves some conflict, and which is considered valuable if the producer believes it useful or satisfying.

Process

Before analyzing in detail the four phases of the creative process—preparation, incubation, illumination, and verification—a consideration of the theories concerning origin and motivation of the process will be included.

What is the human factor which sets the creative activity in motion? The literature includes at least three categories of theory which attempt to answer this question. According to these theories, the creative process begins as an outcome of one or a combination of the following: an innate drive
towards achieving variety, adequacy, self-actualization, or integration; an outcome of the person's need to reduce pre-genital sexual drives; and, an outcome of having made restitution for destructive impulses. An analysis of selected literature supporting these three categories of motivation follows.

The need for activating the creative process may be inherent in the human organism. Fiske and Maddi promote the thought that in order for individuals to sustain a normal level of activation, they consistently manifest an inherent need for variation. The "novelty theory" expressed by Fiske and Maddi is supported by Sinnott, who says this need is a part of man's evolution; he must initiate novelty in order to satisfy a biological need for organization, a process present in all life. Hart believes the process originates to achieve an integrative function: "The integrative tendency of all living matter is inherent in the creative urge which must be regarded as primary, and not fundamentally defensive, unless we regard survival itself as defensive." Rogers believes the motive for the creative process to be ". . . man's tendency to actualize himself, to become his

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potentialities." Maslow describes that kind of creativeness which is in all human beings, enabling them to actualize themselves and know psychological health. In his consideration of man in space, White suggests the existence in all men of a fundamental urge toward competence, "... as fundamental as the urge to procreate ... and provides us with a conceptual basis for ... the creative side of man's behavior. ... 17

Another theory which offers a "why" of the creative process concerns the individual's need to reduce or sublimate pregenital sex drives. The leading proponent of this theory was Freud. There have been very few recent writers who have attempted to place the origin of the creative process in this category. H. B. Levey's survey of the literature concerning the theory of sublimation provides a good bibliography of those works which attempt to explain the need to activate the creative process in order to transfer instinctual drives into directions that cannot be frustrated by the environment. 18

A third and final category is that of restitution for destructive impulses. Basic to this theory of origin is the


belief that an individual must create in order to externalize in an artifact, symbolically, the same image that hostility destroyed.¹⁹ Most of the literature in this category is written in an attempt to describe the artist. The theories themselves are generally based on the assumption that man is inherently angry and out of his element on this earth; therefore, he substitutes a creative bent, one to compensate for his destructive one. It is of interest to note the paradoxical nature of this theory:

The re-structuring of mental organization effected by the new discovery implies that the creative act has a revolutionary or destructive side. The path of history is strewn with its victims: the discarded isms of art, the epicycles, and phlogistons of science.²⁰

There is, therefore, no definitive theory as to the motivation of the creative process. The above three categories are representative ones which reflect the bulk of the selected literature on the subject. Attention will now be directed to an analysis of the process itself, the act of creation.

The creative process will be analyzed and described in terms of the four most generally agreed-upon phases or stages: preparation, incubation, illumination, and verification. Although each stage will be considered separately, there is no doubt that the stages themselves interact and overlap.

²⁰Koestler, p. 659.
making no single one discrete by itself. The nomenclature chosen to distinguish the phases is not original but had its origin in the works of the German physiologist and physicist, Herman Helmholtz. Graham Wallas used the ideas of Helmholtz and contributed the four-stage cycle—preparation, incubation, inspiration, and verification—in his 1926 publication, The Art of Thought.

Helmholtz here gives us three stages in the formation of a new thought. The first in time I shall call Preparation, the stage during which the problem was "investigated . . . in all directions . . ."; the second is the stage during which he was not consciously thinking about the problem, which I shall call Incubation; the third, consisting of the appearance of the "happy idea" together with the psychological events which immediately preceded and accompanied that appearance, I shall call Illumination. And I shall add a fourth stage, of Verification, which Helmholtz does not here mention.

Although it was Wallas who originated the nomenclature, it was Catharine Patrick who popularized the four phases which writers have generally accepted as the most agreed upon divisions of the creative process. In order to establish a firm basis for understanding and applying creativity, each of these four stages in the process will be analyzed and described. What will be presented will draw heavily from

23Kneller, p. 47.
selected writings on creativity published during the past twenty years.

Preparation.—The first phase of the creative process is that of preparation. The moment of acknowledgement of an interest, the initial insight into the problem itself, is considered an impetus to the phase of preparation. Identification of the interest or problem is the first step in the preparation phase. According to Dewey, when a situation or problem arises, the individual can remove himself from it by dodging or by flights of fancy, or he may face it, reflect on what it really means, and thereby recognize its existence.\(^{24}\) Dewey's recognition of the problem in reflective thinking is sufficiently similar to the first stage of the creative process to justify the expectation that the same theory will just about cover both.\(^{25}\) Again, as in the stage of verification, the individual is responsible for articulating the meaning of that which confronts him as an interest or problem. Such articulation is dependent upon the individual's ability to put into thought or writing the precise meaning or definition of the problem itself. Before one can go about the activity of preparing his data in order to create, he must first interpret clearly that which is prompting the

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investigation in the first place. One of the most unique analyses of this function is provided by Gordon in his book *Synectics*. According to Gordon there are two ways by which the individual can come to understand the problem itself. The first of these ways he calls "making the strange familiar." 26

For work on a problem to get started, some concrete assumptions must be made, although in the course of the problem-stating, problem-solving process, the understanding of the problem may change. It is the function of the mind . . . to attempt to make the strange familiar by means of analysis. . . . when faced with strangeness the mind attempts to engorge this strangeness by forcing it into an acceptable pattern. . . . The mind compares the given strangeness with data previously known and in terms of these data converts the strangeness into familiarity. 27

A second part of the preparation stage described by Gordon is called "making the familiar strange." According to Gordon, a part of the preparation prior to production of the new creation involves the mind's ability to transpose the everyday ways of looking and responding to the less secure position of perceiving routine things differently. 28 Such "taking a new look" often aids in providing insight into the and facilitating a more precise articulation of what that problem is. Thus before one can immerse himself in the data

surrounding the problem itself, he must first be aware of what precisely that problem is.

Once the problem has been recognized, it becomes the job of the individual to perceive as many of the possibilities connected with the problem as he can. Understanding of what the problem is only gives direction and purpose to the exploration which is to follow; such exploration is at the heart of the preparatory stage of the creative process.

That there is an indispensable preparatory period characterized by directed effort and intense concentration appears beyond question. Since no one reports the belief that the moment of illumination can be brought about by sheer force of will, it is safe to assume that some prolonged conscious preparation is indispensable. Autobiographical instances can be cited to support such a contention.

Henri Poincaré, in discussing what preceded the appearance of sudden illumination, states

... it is possible, and of a certainty it is only fruitful, if it is on the one hand preceded and on the other hand followed by a period of conscious work. These sudden inspirations ... never happen except after some days of voluntary effort which has appeared absolutely fruitless and whence nothing good seems to have come... These efforts then have not been as sterile as one thinks; they have set going the unconscious machine and without them it would not have moved and would have produced nothing.29

29 Henri Poincaré, "Mathematical Creation," The Creative Process, p. 27.
Malcolm Cowley writes that poet Hart Crane would meditate over what was to go into a poem for months or years, "... scribbling verses on pieces of paper that he carried in his pockets and meanwhile waiting for the moment of pure inspiration when he could put them all together." There appear to be as many methods of preparation for creation as there are creators. In their attempts to come to some agreement as to what does occur in the preparatory stage, writers have at times been unable to reach common ground. For instance, there is a division of opinion over the extent to which one should gather material or data at the start of a creative project. One school of thought advises the individual to saturate himself with facts, while the other believes that fact-gathering should be limited. Regardless of the extent, fact-gathering is indispensable during the preparatory stage. Noting the necessity of observation in order to take stock of the facts or conditions surrounding a problem, Dewey writes

Some of these observations are made by direct use of the sense; others by recollecting observations previously made either by himself or by others... In this way he gets as clear and distinct a recognition as possible of the nature of the situation with which he has to deal... No matter whether these conditions come to him by


Direct perception or by memory, they form the "facts of the case." They are the things that are there, that have to be reckoned with. . . . It is no use to wish they did not exist or were different.  

Thus it becomes a logical contention that an individual is usually creative within fields with which he is most conversant, yet there is a paradox in this contention which requires inclusion at this point. The paradox lies in the fact that, before one can create something new, he must spend a great deal of time immersing himself in the known facts of that field--a practice which often blinds one to novelty or originality. "It seems that creative ideas do not occur to us unless we spend a great deal of time and energy engaged in just the activity which makes their emergence most difficult."  

In order to offer a tentative resolution to this paradox, it might be suggested that when one immerses himself in the facts or data of a given field, he may actually be creating for himself an organization of that data which, after a period of incubation, will result in illumination. This explanation may be faulty, because it once again involves the autonomous forces of the creative act, about which no one can be absolutely sure.

What occurs when the individual undertakes to acquaint himself with the data, to immerse himself in the facts which surround a problem? In answer to this question, Haefele has

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32Dewey, pp. 102-103

33Mary Henle, "The Birth and Death of Ideas," Contemporary Approaches to Creative Thinking, p. 43
indicated that the following aspects of mental preparation are involved:

1. Restructuring--a process of establishing new directions of search based on exploration for pertinent clues and areas\(^3^4\)

2. Symbolization--a statement of the problem as representation (an image), as the creation itself, and as response to promotive conditions (the provision of a model)\(^3^5\)

3. Analogy--showing a relation or likeness between two or more things\(^3^6\)

4. Heuristics--producing theorems which may apply to the investigation\(^3^7\)

5. Check Lists--aids applied to carry forward solution of the problem.\(^3^8\)

Although other writers offer similar aspects of the preparatory stage, Haefele's listing appears to be the most comprehensive and objective to date.

As a result of confronting the data relevant to a problem, the individual may set about to formulate certain connections or postulates. These postulates may come as a result of any

\(^{3^4}\) Haefele, pp. 46-48.

\(^{3^5}\) Ibid., pp. 48-59.

\(^{3^6}\) Ibid., pp. 59-60.

\(^{3^7}\) Ibid., pp. 60-62.

\(^{3^8}\) Ibid., p. 62.
of the activities just described. The resulting formation of new information does not yield an immediate illumination or answer to the problem at hand, but it does offer the raw material with which he can hypothesize or venture initial guesses as to the solution. Stein points to a danger in the preparatory sequence at the hypothesis formation stage.

For some persons the creative process may stop during the stage of hypothesis formation. They develop too few hypotheses because of intellectual or emotional reasons, or in the process they become sidetracked by considering a specific intellectual matter that is not relevant to the demands of the moment, or they come upon a previously unresolved emotional difficulty that forces its attention upon them.39

The hypotheses which come as an outcome of the individual's immersion in the content of his problem are not to be mistaken for the illumination or moment of insight which follows the incubation stage. Although their emergence may come about in much the same way as an illumination, their nature is different because they represent random ideas which have occurred, some partially valid, others completely irrelevant. The adequate idea, if it may be called that, becomes the eventual solution to the problem. The hypotheses which appear during the preparatory stage are merely directional urgings which do not adequately fulfill the unterminated want.40


fermentation of these tentative guesses and random approximations is reserved for the next stage of the creative process, incubation.

In summary, the preparatory stage of the creative process may be said to include the following activities:

1. Recognizing the interest or problem and articulating its meaning
2. Confronting the available data relevant to the problem
3. Producing hypotheses or tentative solutions.

**Incubation.**—Except for the actual moment of insight or illumination, the period of incubation is the most mysterious stage of the creative process. It is mysterious because it involves a spontaneous, autonomous activity which occurs beneath the level of conscious awareness. It is as if the human being was equipped with a subterranean garden, out of reach of his consciousness, into which he plants random seeds, and out of which mysteriously appears the desired fruit. The original meaning of the word contains part of the mystique. The Greeks regarded the incubation period as a time of sleeping in an ancient place for the purpose of receiving aid or revelation from the gods. All writers in creativity acknowledge the phase of incubation. The general feeling among them seems to be that during incubation something is obviously going on besides just waiting for the moment of insight or illumination.
If there is a deliberate sub-process at work, an understanding of it will be helpful in the overall analysis of the creative process. A survey and summary of selected treatments of what occurs during this gestation period follows.

Most authors are hesitant to include more than biographical glimpses of great inventors who testify to the need for "sleeping on it." Since this hidden, organic process seems to be beyond being willed, any effort to understand it appears formidable. The best that most writers can do is assign it to the inexplicable realm of the unconscious and thus relieve themselves of the job. "The period of conscious preparation is followed by a time of nonconscious activity in which the creator's ideas 'go underground.' There the free-ranging unconscious . . . makes those unexpected connections that are the essence of creation."41 "But it is more probably that the rest was occupied with unconscious work, and that the result was afterwards revealed."42 . . . they (preparatory ideas) have set going the unconscious machine. . . ."43 James refers to the "deep well of unconscious cerebration."44 . . . what I had really done was to drop the matter into the

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41Kneller, p. 51.
42Henri Poincare, quoted in Wallas, The Art of Thought, p. 65.
44William James, quoted in Osborn, Applied Imagination, p. 156.
subconscious, much as one drops a letter into the mailbox. Six months later, the words of the poem began to come into my head, the poem—to use my private vocabulary—was there.\textsuperscript{45}

"Then after the mind has ceased to be intent on the problem, and consciousness has relaxed its strain, a period of incubation sets in. Material rearranges itself..."\textsuperscript{46}

The fact that the above quotations point to the idea that the unconscious mind works things out during incubation is interesting, but these explanations are futile substitutions for what actually happens during the phase. In his statement on incubation, Dewey does include a clue to what may be the most acceptable description of what occurs. He calls incubation one phase of a rhythmic process.\textsuperscript{47} The rhythmic process is applicable to any phase of the organic process, wherein there are periods of activity followed by periods of rest. If this be so, then it is logically possible to consider the period of incubation as being in the same category with spaced practice in learning. "It may be that the same hypotheses that account for the effects of spaced learning in memorizing or in sensorimotor practice will also account for the effects of incubation in productive thinking."\textsuperscript{48}


\textsuperscript{46}Dewey, p. 284.

\textsuperscript{47}Ibid.

The basic hypothesis offered by psychologists of human learning is that there is a rapid increase in proficiency of learning after a rest period.\textsuperscript{49} The problem is that these writers offer no explanation why, which brings the initial problem back to the front. What occurs when the "subconscious" acts on the data fed it by the preparatory activity?

Jung's description and analysis of the collective unconscious and its role in creativity, found in the chapter "On the Relation of Analytical Psychology to Poetic Art," in \textit{Contributions to Analytical Psychology}, offer a substantial theory and answer to the question. His analysis includes the following explanations:

1. The creative process consists in an unconscious animation of the archetype (dispositional tendencies from other generations).

2. By seizing the primordial image in his unconsciousness, the individual brings it into relationship with conscious problems.

3. The unconscious work is completed by the development and shaping of this image.\textsuperscript{50}

Having determined that the unconscious was an agent of mental transformation in all phases of knowledge, Montmasson


assumes the key agent to be the "dynamic unconscious." In his theory, the unconscious originates in images of sensation and movement which are detached from the conscious and thus never perceived through wilful directive. Thus, for Montmasson, these images generate activity capable of penetrating consciousness, unless the "gaze of the mind is able to hinder its flight, if not to paralyze it." 

Bischler theorizes that in the "preconscious" a synthesis occurs, in which the associations become connected with verbal and auditory factors, and eventually reach the conscious mind in terms of ideas and images. On the other hand, Barron believes the unconscious to be incapable of bringing about such a synthesis. The unconscious must be ordered when scrutinized by the conscious. Barron is obviously correct in assuming that the conscious mind must scrutinize and order that which the unconscious emits, but if indeed the unconscious does release certain ideas, that in itself testifies to its capacity to generate ideas autonomously. Hatfield gives the 

52Ibid.
53Ibid., p. 276.
54W. Bischler, "Intelligence and the Higher Mental Functions," The Psychoanalytic Quarterly, VI (1937), 288-294.
unconscious all the credit: "Our consciousness is only a spectator, or at best, a critic of the impulses and suggestions springing from our unconscious minds. All creative work, at any rate, takes place in the unconscious." Jung stresses the mediation between the two, which he calls the "transcendent function of the personality," and the idea that psychic energy must be expended to bring unconscious elements to the surface. Jung's theory is supported by Murphy, who states that if the unconscious supplied a new idea, it is always accomplished by the integration of data previously present in the conscious mind.

During the past twenty years a new theory has been offered to explain what occurs during the stage of incubation. Norbert Wiener christened the word Cybernetics (from Greek, meaning steersman) in his 1948 publication Cybernetics, Or Control and Communication in the Animal and the Machine. Since that publication, writers have produced volumes of material attempting to associate the study of cybernetics with the processes of human thinking and creativity.

56 Stafford Hatfield, The Inventor and His World (New York, 1933), p. 10.
thesis of a later book by Weiner, *The Human Use of Human Beings*, reads: "It is my thesis that the operation of the living individual and operation of some of the newer communication machines are precisely parallel."\(^{60}\) Von Neumann's unfinished manuscript for the Silliman Lectures at Yale was directed towards the same subject and later published as a book, *The Computer and the Brain*.\(^{61}\) Maxwell Maltz has popularized the concept and offered cybernetics as a panacea for the modern trapped in routine existence. Relying on the research of Weiner and von Neumann, Maltz points to the subconscious as a mechanism which is autonomous, goal-striving, and acting as a "servo-mechanism."\(^{62}\) He believes that conscious thought is not enough to solve problems, that "forebrain thinking" must surrender the problem to the subconscious servo-mechanism, relax, and wait for the results.\(^{63}\) Though it was never compared with a computer, the subconscious and its function have been treated similarly before by such writers as William James in the nineteenth century. James, in the essay "The Gospel of Relaxation," writes, "Unclamp, in a word, your intellectual and practical machinery, and let it run free;


\(^{63}\)Ibid., pp. 72–73.
and the service it will do you will be twice as good." In another work James emphasizes the regenerative power which ensues after one surrenders his conscious preparation to subconscious machinery. Cybernetics has at least brought the problem of the creative process out of the mystical language of the nineteenth century and attempted to define its activity in terms of modern science. Perhaps the greatest value to grow out of cybernetics is the advice of scientists and mathematicians on how not to jam the creative machinery, the mechanism that involuntarily scans the data and incubates what later will arrive as the solution during the moment of illumination. That advice will be included in the section on educational implications of the creative process.

The phase of incubation may be summarized as follows:

1. Incubation does not occur in a vacuum; it is dependent upon data derived from the preparatory stage.

2. Incubation is an autonomous, subconscious process; the conscious mind is aware of a respite, a rest period, part of the rhythmic process of organic life.

3. Images present in the subconscious, either existing from past experiences or an archetype, interact with the preparatory data to generate activity capable of penetrating consciousness.

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4. The "servo-mechanism" is a contemporary name used to describe the process of incubation.

**Illumination.**--Illumination is the grand climax of the creative process, the sudden moment of cognizance when the individual acknowledges the presence of a new idea. What occurs to bring about this realization has been treated in part in the preceding discussion on incubation. In an analysis of the stage of illumination, the terms "Illumination" and "Insight" will be used interchangeably, both having been used by writers in the field to describe the same phase of the creative process. A distinction must be provided to separate these two terms from the terms reason and logic, which have at times been confused with the creative process. Some writers have lumped the terms insight and illumination under the heading of functions of the imagination, leaving the terms reason and logic to a more conscious realm of mental activity.

The insight is quite different from all these others. Let me try to give you ... the difference between reasoning and imagination. In the case of reasoning there exists a limited number of possibilities, of possible solutions. By testing out one after another, in the mind or elsewhere, you can be pretty certain to come to one that works.

In contradiction to the above, in which there is a finite set of possibilities and therefore a reasonably good expectancy of catching the right one sooner or later, are the problems one solves by imagination. The brute power of logic is useless; somehow you get the clue, and that is that. The moment it comes there is no question about the right solution.

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The distinction is an invaluable one. It represents the crucial difference between creative thinking and logical thinking. The one, creative thinking, is best recognized in the illumination stage when the "solution" comes by sudden arrival because it is not susceptible to logical attack; whereas in the other, reasoning, a problem is marked out and exploited logically, by means of conscious trial and error, usually resulting in some "best" solution among many. "The deliberate reasoner likes to go step by step and to change variables in a closely controlled manner. The more intuitive worker plays with the variables (incubation or preparation), changing several at once, until a sudden insight bridges the gap as the result of unconscious integration."67 The ordering of the sequence may aid in distinguishing the two functions. When any novel or new insight arises full-blown and formed during the phase of illumination, it may or may not be regarded as promising for future mental activity, but for the moment it represents a complete solution in itself. Putting it in a biologist's words, "... it (preconscious or imagination) accounts for the arrival of the fittest...", and reason insures the "survival of the fittest."68 This is not to say that insight or sudden realization does not come about

67Haefele, p. 87.

during the reasoning processes, but these are to be considered minor in contrast with the major insight which initiated the logical processes which follow. Illumination is truly the heart of the creative process. Like a new born babe, it comes equipped for full development, but that development comes about only after the initial creation.

Writers in the field have attempted to characterize the illumination stage. From their writings can be gleaned a number of generally similar traits. Kneller states that illumination is not only unforeseen but is apparently self-certifying. That is to say, the individual is aware that the illumination is correct before he goes about the task of verifying it logically, thus giving this phase of the creative process an inherent power of its own. Haefele characterizes the illumination as having newness, brevity, and suddenness. Newness is a relative feature, but in keeping with the definition formulated earlier in this study, the illumination must only be new to the individual producing it. The illumination is usually reducible to a brief, concise phrase or idea fraught with implications. "Insight is the distilled essence of much mental activity. It reaches directly to the heart of the matter and expresses it in a nutshell." Many have testified to the suddenness of illumination; although, as will be

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69Kneller, p. 54.
70Haefele, p. 91.
71Ibid.
pointed out later, there is a brief period of intimation which precedes the moment of insight. The Gestalt school places heavy emphasis on the moment of sudden insight when the solution emerges all in one piece; on the other hand, the S-R school believes the moment of insight emerges more gradually.  

At least four major writers point to the theory that the illumination moment is always preceded by an intuitive awareness on the part of the individual who consciously recognizes the approaching solution. Wallas reserves an entire chapter to what he calls "intimation." He suggests that during the illumination stage an indication of the coming "flash of success" arises when the "fringe consciousness of an association train is in the state of rising consciousness." What Wallas seems to be indicating is that there is a "feeling" which the individual recognizes only as that which precedes and accompanies the emergence of the new idea. In the first edition of his book, *How We Think* (1910), Dewey describes the feeling or intimation "... as emotional disturbance, as a more or less vague feeling of the unexpected, of something queer, strange, funny, or disconcerting." (It is interesting to

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72 Koestler, P. 577.
73 Wallas, p. 67.
74 Ibid.
note that Dewey deleted this statement in his revised edition of 1933). The mathematician Hadamard voices some disagreement with Helmholtz and Poincaré (who believe there is no middle ground between subconscious and conscious). Hadamard supports Wallas' theory of intimation by pointing to what he calls the "fringe-consciousness," through which the illumination passes, making it possible for one to "sense" its forthcoming arrival. Haefele presents the analogy of a supersaturated solution, sodium thiosulfate, to explain the "precipitant of insight." Osborn theorizes that unconscious effort just prior to illumination creates an inner tension. His theory may explain the intimation experienced by the other writers.

Disagreement over the phenomena of illumination has brought about a learning theory confrontation between two schools of thought, the Gestaltists (Wertheimer, Kohler, Koffka) and the associationists (Thorndike, Pavlov, Watson, Guthrie). For the associationist school, the appearance of a new idea is merely the response which was brought about by the manipulation of variables. They believe that no really "new" factor is ever involved, just the manipulation of past data. The word "insight" never occurs in the indexes of

77 Haefele, pp. 89-90.
78 Osborn, p. 158.
Skinner's books. Pavlov avoided the use of the term insight, but he describes the utilization of acquired connections to bring about some kind of transfer. Thorndike did not deny insight in man, but preferred to explain it in terms of associative laws applying in other situations. The Gestaltists, on the other hand, chose to deny the associationist contention that the possession of necessary past data somehow insured the production of a new idea or solution. A Gestaltist would argue that having all the necessary materials and experience at hand would not guarantee the construction of a new bridge. He points to the use of past data, but emphasizes the processes out of the data at hand. The argument reduced itself to the associationists contending that there really is nothing novel ever produced, just old data rearranged, and the Gestaltists contending that though the past data is utilized, there is a new creation ordered by a spontaneous process of organization or Gestalt-configuration. Although Kohler believes the gulf between the two is unbridgeable, "absolute," there appears to be the likelihood that for the

80 Ibid., pp. 69-70.
81 Ibid., p. 46.
82 Ibid., p. 240.
83 Wolfgang Kohler, quoted in Koestler, p. 579.
purposes of this study both offer separate ingredients for understanding the phase of illumination in the creative process: insight occurs when there is a restructuring of pre-existent data, appearing suddenly as a new concept which has not been consciously controlled.

The phase of illumination can be summarized as follows:

1. The illumination is not to be confused with insight brought about by reasoning or trial and error processes.
2. The illumination arrives completely formed without having been produced by deliberate, logical attack.
3. The illumination is characterized as being new to the producer and self-certifying.
4. There is a period of intimation just prior to the sudden arrival of the illumination.
5. Illumination occurs when there is a restructuring of pre-existent data, appearing suddenly as a new concept which has not been consciously contrived.

**Verification.**—The verification stage of the creative process is the time of realization or formulation of the new idea. The formulation may take any form, yet the activities which contribute to the development of the various forms generally share some like attributes. A consideration and description of these activities will constitute the major portion of this section.
Most of the selected literature on creativity fails to consider the stage of verification as a strategic one because its nature is somewhat different from the other stages which preceded it. Whereas preparation, incubation, and illumination dealt primarily with the production of a new or creative idea, the phase of verification relies on logic, judgment, and reasoning more so than upon creative insight. To state that verification is void of imaginative or creative enterprise would not be accurate. Although development of the idea relies heavily on judgment and reasoning, it is also dependent on minor insights, minor complete cycles of the creative process, for its development and realization. The minor insights and creative discoveries supplement the reasoning individual who goes about the activity of testing the various avenues of expression which give way to the development of the idea. Thus, the stage of verification is retained as a primary activity in the creative process though its fulfillment is brought about through judgment and reason more than through creative insight.

Verification can be said to be elaboration and revision. Elaboration involves selecting the relevant details which give substance to the new born idea. The new idea comes complete but distilled, as has been pointed out previously. There is some question as to why articulation of the idea is necessary.

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84Haefele, p. 105.
85Ibid., pp. 106-110.
in the first place. It appears necessary for two reasons. First of all, though the new born idea certifies itself, the creator may wish to make a full interpretation of its value in connection with that which he alredy possesses. Such a desire is dependent upon the wish to give credence to that which has been self-discovered. It is as if the individual wished to actualize what he had created by acquainting it with the matrix of his former ideas. Such verification often ends in one of two things: (1) adjusting the new idea to fit existing belief, or, (2) adjusting existing beliefs to accommodate the new creation. Regardless of which comes about, the individual will make a conscious mental effort to bring about some kind of new synthesis. As might be expected, the new synthesis taking place may activate completely new creative cycles.

Whereas incubation and illumination were relatively passive, painless phases of the creative process, verification is a conscious toil, a methodical wringing of the mental functions to bring about fruition of insight. The principal activity involved in verification is elaboration or expansion. To expand is to enlarge, not to add. A creative insight comes equipped with a genetic structure all its own, capable of great growth and expansion. Its complete fulfillment is dependent upon its creator's desire to actualize it through extension.

A delineation of scope and meaning is the first step in elaboration. What is the extent of that which is produced?
Is it simply the "answer" to a single problem, or does it represent a key illumination capable of solving a maze of problems? The scope of the insight will determine its capacity for extension and application. It is probable that the input during the stage of preparation determines the extent of elaboration which follows in the verification stage. Understanding the meaning of the insight appears unnecessary, yet recognition of the meaning of the insight is indispensable. Unless full understanding of the insight is achieved in the early stages of verification, there is the possibility that the completed idea will lose some of the initial wonder and interest of the original germ of meaning. Thus elaboration may become a dangerous process, capable of distortion, unless there is complete cognizance of the meaning of the insight. The insight is first of all a completed blueprint, but in order that the blueprint may be actualized, the creator must know its scope and meaning.

After determining meaning, the individual must again activate mental processes before verification can be realized. In communicating the product hidden in the blueprint, he must exercise judgment and reason in selecting only the "materials" (words, paint, steel) which will convey the authenticity of the initial insight. Elaborative work is a highly selective process of choosing and weighing alternatives. With enlargement must go a fidelity to the original, an uncompromising restraint which is highly discriminatory. The "way" of
elaboration is usually regarded as style. If the elaboration is carried out in accord with what is distilled in the original insight, the authenticity or individual style of the creator is secured. Since creative insight is regarded as that which is novel to the producer, it follows that a truthful elaboration of creative insight is a highly individualized matter, dependent upon selective perceptions of what exactly that insight is. A successful actualization of insight communicates understanding of the insight to others. Such understanding is not possible without great effort to attain faithful elaboration. By elaboration, the insight is brought to some rough proportion of complete development. In his structure of intellect model, Guilford refers to the process of "divergent-thinking operations" as the principal method of elaboration. After the enlargement of the creative idea through extension and elaboration, an editing procedure remains to complete the final stage of the creative process.

Many of the inventive minds of history have literally spent years attempting to revise and polish products of the verification stage which originated in brief moments of illumination. The arduous task of editing is often the most demanding of the individual because it involves the destruction or modification of the artifact. Like elaboration,

86Ibid., p. 109.
revision requires discrimination and judgment, the results of reasoning. A clear vision of the germ of illumination is required if the editor is to achieve his aim, that of eliminating what detracts from conveyance of the original, and adding what is necessary to complete the product. Polishing is an exasperating function because of the constant danger of over editing to the point of destroying the original. As in elaboration, the individual is dependent upon occasional returns to minor creative cycles in order to call forth new insights which supplement revision. Another reason why revising becomes consuming is the new creative activity which it activates. When critically reviewing and editing the efforts of elaboration, the individual will see many brand new problems and avenues of creative enterprise. These interruptions often detract from the matter at hand and can remove an all important ingredient, interest, from the phase of verification. To sustain the interest required to complete revision, there again must be clarity of original purpose. Tentative thrusts in new directions fragment the energy directed towards completion of the artifact. To discipline revision and remain engaged in the final stage of the creative process appears somewhat contradictory to theories of creativity which require flexibility and freedom. The distinguishing feature of the verification stage is reason and control, not spontaneity and imaginary flights of the mind. Thus, before illumination can be communicated (the purpose
of verification), there is a necessary realignment of intention which carries the responsibility of mental toil. Without such realignment, the individual can realize no more from his insight than the tentative joy of its arrival. Without the extension of the illumination through the process of verification, there can be no "product." Creative insights, though rewarding in themselves, can know no actualization without the direction of the conscious intellect. As a function of the creative process, verification may be at odds with the other stages because of this fact. But without verification, there can be no genuine fruition of the process.

The phase of verification can be summarized as follows:

1. Verification is dependent upon reasoning and judgment.
2. Elaboration of insight involves an expansion or extension of the original idea by selection of relevant details which give substance to the insight.
3. Revision requires editing and polishing in order to assure the most accurate communication of the product.
4. The activity of verification requires a new mental orientation which differs from that of the other three stages.

Summary

The following consensus definition of creativity was developed for the purposes of this study:

Creativity is a human mental ability characterized by a process which reorganizes existing knowledge to produce a
synthesis which is novel to the producer, which usually resolves some conflict, and which is considered valuable if the producer believes it useful or satisfying.

The four phases of the creative process may be summarized as follows:

1. Preparation may be defined as that stage during which the individual recognized his problem, articulates its meaning, confronts relevant data, and produces tentative hypotheses.

2. Incubation is the autonomous, unconscious process in which images present in the subconscious interact with preparatory data to generate activity capable of penetrating consciousness.

3. The illumination is the newly formed, self-certifying idea which appears suddenly without having been produced by deliberate, logical attack.

4. Verification is the phase dependent upon reasoning and judgment and involving the expansion or extension of the illumination in order to assure its communication to another.
CHAPTER III

CONDITIONS FOR CREATIVITY AND SOME
IMPLICATIONS FOR EDUCATION

What are the conditions which promote creativity and how can they be incorporated in plans for education? The preceding conclusions, derived from a study of selected courses on the creative process, hold only partial answers as to the best conditions for those activities. According to selected literature on the subject of conditions for creativity, there are both internal and external conditions which promote the creative process. The internal conditions, those which refer specifically to the individual's makeup, are openness in experience, autonomy of judgment, capacity for juxtaposition, and a high activation level. The external conditions, those which refer specifically to the outside environment in which the individual operates, are psychological safety, psychological freedom, and stimulus variation.

Before proceeding to the separate conditions for creativity, internal and external, it is necessary to include the view that the teaching-learning situation is transactional. That is to say, the teacher's responsibility is to secure the interaction of the internal and external conditions so that each fulfills and compliments the other. It becomes the
teacher's job to establish the mode in which the interaction of the two sets of conditions can occur. Later in this chapter an illustrative example is included to show how the teacher secures the interaction. Following the example, suggestions for creative education will be offered.

Conditions for Creativity (Internal)

Openness in Experience

Openness in experience refers to a psychological expectation which is willing to admit perceptions. An openness in experience implies more than a willing readiness to perceive as much of the universe as possible. The degree of openness an individual experiences is dependent upon several things. Readiness can be hampered by constrictive intellectual habits which permit only minimal awareness. In the section on openness-mindedness in *How We Think*, Dewey states, "The mind that is open merely in the sense that it passively permits things to trickle in and through will not be able to resist the factors that make for mental closure."¹ Earlier, Dewey refers to unconscious fears, pet notions, self-conceit, and the "path of least resistance" as the factors which make for mental closure.² It is a necessity that the individual be as open in experience as possible during the phases of preparation.

²Ibid., p. 30.
and verification. A closed mind will not be capable of registering many data from observation, nor will it be open to judge and weigh during the elaboration-revision stage of verification.

Kneller believes the chief obstacles to openness are the "... habits of thought and conduct he (the student) absorbs from his culture, which channel his responses to the world in predetermined ways." Thus, before the individual can adequately engage in open experiencing, he should first examine those mental habits which he has adopted to determine whether they permit clarity of perception. The subsequent alteration of past habits or beliefs presents another challenge to the facilitation of the creative process. The irony of this notion is that the individual usually acquires habits of perception (or the degree of openness) from his experience in the culture in which he finds himself. Therefore, in order to overcome less adequate habits of perception, the individual must attempt to divorce himself temporarily from his culture and observe afresh. This certainly does not imply exile or alienation but an intellectual detachment for the purpose of examining those mental habits which inhibit exploration of new problems or ideas.

Psychologists have offered a variety of theories as to how the individual can be more open in experience and thus

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more likely to be creative. Rogers suggests that openness to experience is the opposite of psychological defensiveness, which limits the individual by causing him to perceive in predetermined categories.\textsuperscript{4} Commenting on the detrimental effects of psychological defense patterns, Sawrey and Telford conclude

The defense mechanisms typically involve a denial or distortion of "reality." The individual either represses or distorts his percepts, thoughts, wishes, desires, and motives. He makes the world over in his own image. . . . defense mechanisms are likely to develop into fixed and rigid behavior patterns. The constantly defensive individual becomes a victim of his own defenses and loses flexibility. . . . The defense mechanisms preclude objective self-evaluation. . . . Without any self-criticism he feels reasonably self-satisfied and not in need of change.\textsuperscript{5}

According to these writers and others, defensive behavior precludes the opportunity to obtain openness in experience outside the predetermined range in which the individual feels safest. A rigid individual is unable to permit fresh exploration of ideas or problems, an essential process in either preparation or verification. An inability to admit relevant data because its admission would pose a threat represents a primary detriment to the preparatory stage of the creative process. Furthermore, the incapacity of one to acknowledge an illumination because of the threat it presents to a


\textsuperscript{5}James M. Sawrey and Charles W. Telford, Dynamics of Mental Health (Boston, 1963), pp. 65-66.
predetermined mental set presents a primary obstacle to the phase of verification. Extension or elaboration would be impossible for the individual incapable of entertaining at length a notion which was contradictory to formerly comfortable insights. Since during the preparation and incubation phases the individual must tolerate a certain amount of ambiguity, there could be very little psychological security for the defensive person. Stereotyped thinking, a characteristic of the closed mind, would hardly enable one to entertain new-found ideas, much less go through the painstaking task of verification which calls for accommodation of the new. "The more the individual has available to himself a sensitive awareness of all phases of his experience, the more sure we can be that his creativity will be personally and socially constructive."  

Detachment, a prerequisite for introspection and clarity of vision (means of opening the mind), is treated by Bruner, who reports that the creative ones desengage themselves from that which exists conventionally and "... are engaged deeply in what they construct in order to replace it."  

In summary, the creative process can best be promoted if the individual remains open in experience. Becoming open

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6Rogers, p. 254.

in experience involves the inspection of mental habits and
the removing of defensive mechanisms which inhibit perception.

**Autonomy of Judgment**

After the illumination has been realized, the individual, by necessity, must make some judgment as to the value of that illumination. It is the origin of such judgment that determines this condition. Does the basis of evaluation lie within the individual or outside him, established by the standards of others? If the creative process is to be facilitated, the source or locus of evaluative judgment must be internal.³

Autonomy of judgment or evaluation does not, on the other hand, refer to obliviousness to methods by which the illumination can be communicated. The verification of the illumination takes into account communicating the idea to another, which necessitates a second judgment, that of another individual to whom the idea is communicated. In this discussion, the condition of autonomy of judgment refers specifically to the individual's capacity to judge the worth of the insight alone. If there is such autonomy, there will be no reason for the individual to go beyond his own internal locus to determine whether the insight is useful, tenable, or satisfying. It would appear that it would be somewhat unnecessary to include this condition, yet the desire to

³Rogers, p. 254.
condition one's judgment according to the likes and dislikes of others is at times overwhelming. Intellectual conformity probably has its most detrimental influence after the moment of illumination when the individual decides that the insight is of no value to him because he believes it would not coincide with the value base of another from whom he is anticipating sympathetic reception. The germ of creation may be altered or even thrown out during the rigorous mental process of verification, yet unless the individual is capable of determining the value of the insight himself, he may never bring the idea far enough to undergo verification. "Conformity, involving loss of self-reliance, undermines the person's creative powers by weakening his trust in the essential validity of his own processes of thought and imagination." Conformity to tried methods of communication may be invaluable in securing communication during the verification stage, but conformity in evaluating the worth of the insight may indeed cause the creative process to stop altogether.

The analogy of the bridge builder is again useful. After arriving at the "idea" of his bridge and constructing the appropriate blueprint, the bridge builder will usually conform to standards of mechanical engineering and employ concrete and steel to see his idea materialize. On the other hand, if the bridge builder subjects the value of his "idea" to the value

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9Richard S. Crutchfield, "Conformity and Creative Thinking," Contemporary Approaches to Creative Thinking, p. 120.
base of another, he denies himself and thus prostitutes his insight. In fact, there is no creative process as such when the individual relinquishes to another his insight.

Organizational and individual pressures operate to limit and to mold creativity. They limit when they inhibit autonomy of judgment; they mold when they enable the individual to prepare his data and verify his insight.

**Capacity for Juxtaposition**

Capacity for juxtaposition is a condition of the creative process, because without it there would be no possibility of producing new insight from old data. Koestler calls his bisociative act (the act of creation) a juxtaposition of planes of experience. Rogers also considers juxtaposition a condition for the creative process.

Associated with the openness and lack of rigidity... is the ability to play spontaneously with ideas, colors, shapes, relationships... to juggle elements into impossible juxtapositions, to shape wild hypotheses, to make the given problematic, to express the ridiculous, to translate from one form to another, to transform into improbably equivalents.

The juggling referred to, or the juxtaposition, the overlay of ideas and thought matrices, appears to be in part necessary

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12 Rogers, p. 255.
in all four stages of the creative process, but especially in preparation and incubation. Swiss psychologist Piaget, in discussing the "spontaneous thought" of children, describes the co-existence of elements (visual and motor experience) as the result of juxtaposition or agglomeration.\(^{13}\) In an earlier book, Piaget asserts the belief that juxtaposition is not accomplished by conscious intellectual activity.\(^ {14}\) (This idea confirms an earlier postulate in this study, that what occurs during incubation occurs beneath the level of consciousness.) Confirming the activity of juxtaposition to be an unconscious activity appears to remove it from the realm of control, yet Piaget suggests several subconditions which influence the capacity for juxtaposition.

There is a synthesis, but the terms juxtaposed in this way are embodied in subjective schemes, syncretism consisting in connecting everything else in accordance with the hazards of a mental orientation that is subjective and egocentric.\(^ {15}\)

Thus, though juxtaposition occurs subconsciously, the individual's mental set or attitude determines in part the extent or degree of occurrence of that activity. Furthermore, Piaget distinguishes juxtaposition and deduction,\(^ {16}\) the latter a


\(^{16}\)Ibid., p. 292.
conscious process utilized during verification. If juxtaposition is in part dependent for its success upon the subjective mental set of the individual, as Piaget indicates, then the condition of juxtaposition is affected by the mental attitude of the individual—discussed in condition 1, openness in experience.

High Activation Level

Recently a new condition for the promotion of the creative process has been offered by psychologists Fiske, Maddi, Houston, and Mednick. In general, it is their belief that there is a need for associative novelty in man, and his activation level is controlled by environment stimuli. The book which contributed to the growth of this theory was The Functions of Varied Experience, in which Fiske and Maddi state the functions of varied experience in three empirical generalizations:

1. Variations in stimulation contribute to the normal development and also to the functioning of organisms.\(^1\) (Chapters 3 and 4)

2. Varied experience is oriented toward and sought out for its own sake.\(^2\) (Chapters 7 and 9)

3. Varied experience is one factor contributing to the affective state of human beings.\(^3\) (Chapters 13 and 14)

\(^1\)Donald W. Fiske and Salvatore R. Maddi, Functions of Varied Experience (Homewood, Illinois, 1961), pp. 57-105.

\(^2\)Ibid., pp. 175-226 and pp. 253-277.

\(^3\)Ibid., pp. 380-430.
Prior to the work done by Fiske and Maddi, there was considerable effort to demonstrate that the creative individual has a distinct preference for variety. Some of those contributing to the effort were Sprecher, Golovin, and Barron. Sprecher and Golovin made their suggestions at the 1959 University of Utah Conference on the Identification of Creative Scientific Talent. Barron's work points to the fact that the individual not only seeks environmental variation but "courts" the irrational in himself "... as the most promising source of novelty in his own thought." In an effort to establish the existence of the need rather than just make demonstration of the individual's preference for it, Houston and Mednick conducted an experiment which involved satisfying the need and then observing "... whether the consequent reinforcement would increase the probability of emittance of behavior which immediately preceded the reinforcement." They concluded that the creative individual has a distinct need for associative novelty.

Jackson and Messick criticized the Houston-Mednick test because the items contained only a single recognized response.

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23 Ibid., p. 140.
and thus had limited value in determining originality. In a later article, Maddi defended the Houston-Mednick test: "Perhaps this criticism is mitigated to some degree by the fact that the recognized response is at least an infrequently occurring association."  

The following three generalizations offered by Fiske and Maddi contain many implications. For the purpose of this study, several of the proposals growing out of their study will be treated in the later section on education implications.

1. "An organism's level of activation varies directly over time with the total impact of current stimulation."  
2. "The impact of a stimulus is derived not only from the intensity and meaningfulness of the stimulus but also from the extent to which it provides variation from prior stimulation."  
3. "For any task, there is a level of activation which is necessary for maximally effective performance."

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26 Fiske, p. 19.

27 Ibid., p. 23.

28 Ibid., p. 31.
4. "In the absence of specific tasks, the behavior of an organism is directed toward the maintenance of activation at the characteristic or normal level."\textsuperscript{29}

The Fiske and Maddi study appears to confirm the general assumption underlying the other three conditions, the assumption that the primary condition for creativity is internal.

In summary, the internal conditions necessary for the creative process are

1. Openness to experience, which results from inspection of mental habits, and removal of defense mechanisms
2. Autonomy of judgment, which refers to the individual's relying on his own evaluation of the insight
3. Capacity for juxtaposition, which refers to the individual's capacity to conceive of two planes of experience at once
4. High activation level, which refers to the belief that if the individual's environment is varied, his activation level is likely to be high, and thus he is more likely to be creative.

Conditions for Creativity (External)

Though the internal conditions of the individual have a great deal to do with whether he will realize his creative potential, external or environmental factors also influence

\textsuperscript{29}\textit{Ibid.}, p. 42.
the creative process. Those external conditions to be considered are psychological safety, psychological freedom, and stimulus variation. The terms "psychological safety" and "psychological freedom" are borrowed from Rogers.  

Psychological Safety

The external conditions which permit psychological security for the individual are absence of value judgment of the insight, acceptance of the individual's worth, and the awareness of the individual's frame of reference. The origin of all three rests in a rationalist position described best by Popper:

Its faith in reason is not only a faith in our own reason, but also--and even more--in that of others. Thus a rationalist, even if he believes himself to be intellectually superior to others, will reject all claims to authority since he is aware that, if his intelligence is superior to that of others (which is hard for him to judge), it is only in so far as he is capable of learning from criticism as well as from his own and other people's mistakes, and that one can learn in this sense only if one takes others and their arguments seriously. Rationalism is therefore bound up with the idea that the other fellow has a right to be heard, and to defend his arguments. It thus implies the recognition of the claim to tolerance, at least of all those who are intolerant themselves. One does not kill a man when one adopts the attitude of first listening to his arguments.  

At the center of the creative process is the individual's illumination, which appears, at the moment of awareness, wholly

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30Rogers, pp. 257-258.

his. To refute this point would deny the entire process. Through illumination and later verification, the insight becomes an extension of the individual himself. In the creative process there are two types of valuations—personal and inter-personal. Personal judgments are made by the individual who produced the insight, whereas inter-personal judgments concern the judgment of the insight by a second party. In the creative process there can be no arbiter of "goodness" of insight other than the individual himself. That insight is "good" if the individual judges it satisfying, tenable, or useful. The dignity of man may well rest in his will to affirm the value of the creative process. That this worth be recognized by some element of the external environment appears a necessary condition if the process is to be encouraged. Again, for the purposes of this study, a distinction must be made. Although personal valuation is the only recognized judgment of insight, inter-personal judgment may play a significant role during the stage of verification. During verification the individual may seek inter-personal judgment to insure the success of the communication of the insight. At this moment, the individual is aware of frames of reference other than his own, and if the essence of the insight is to be communicated to another, external modification may be employed so long as it does not destroy the illumination itself. Thus, the environment must on the one hand permit the individual to judge the value of his ideas, while on the other hand offer judgment
as to the most effective way of communicating those ideas. The individual's freedom to determine value is not jeopardized so long as the initial insight remains intact. But when an individual is told that his ideas are "good" or "bad," he is being told that he cannot rely on his own locus of evaluation in determining whether his ideas are valid expressions of himself.

By giving the individual the privilege of determining the "rightness" of his insight, the environment affirms the worth of that individual. It is only when those in the environment actualize the potential of the creative process that they will come to value the innate dimension and power of creativity found in all men. The degree to which a society affirms the worth of the individual determines the personal freedom realized in that society. When the individual apprehends the environmental climate which acclaims his worth, he gradually realizes that he can become whatever he chooses. With such recognition of worth, the creative individual can further his efforts to actualize that insight he concludes to be valuable. The destiny of an open society appears on this premise.

An understanding of the individual's frame of reference is the final condition for psychological safety. No two perceive reality the same way. Not only should those in the environment permit the individual to judge the value of his idea, but if they are to "know" his idea, a usual
transaction in any society, they must attempt to understand empathetically.

If I say that I "accept" you, but know nothing of you, this is a shallow acceptance indeed, and you realize that it may change if I actually come to know you. But if I understand you, empathetically, see you and what you are feeling and doing from your point of view, enter your private world and see it as it appears to you—and still accept you—then this is safety indeed.\(^{32}\)

Empathy is the key word in understanding another's frame of reference. "We try to make ourselves similar to the total personality and include within ourselves his emotions and sentiments as well as his intellectual assumptions and the questions that may be implicit in his mind."\(^{33}\) The individual realizes psychological safety when he senses that the party in contact with his idea is empathetic.

**Psychological Freedom**

Psychological freedom means the freedom permitted the individual to realize his idea through symbolic expression.\(^{34}\) Symbolic expression refers to the act of verifying the insight by some medium of communication—words, paint, music. To extend the illumination through verification, the individual must be permitted the freedom to choose those words or symbols which approximate the "truest" meaning of the illumination.

\(^{32}\)Rogers, p. 258.


\(^{34}\)Rogers, p. 258.
as he perceives it. The condition of psychological freedom allows the individual to choose those symbols with which he can extend and verify his insight.

**Variety of Stimulus**

A final external condition for creativity is variety of stimulus. According to the internal condition of high activation level, the individual will approach a task with a characteristic level of activation which results from previous environmental influence. If that level of activation is low, it is unlikely that the creative process will ensue. It follows that if one is to realize a high activation level, and thus be more capable of creative endeavor, the external environment must supply enriched and varied experiences. There is evidence to suggest that individuals who experience a restrictive and monotonous environment are relatively inattentive and limited in cognitive ability. On the other hand, an environment which includes opportunities for varied experience is most likely to encourage the creative process and thereby excite individual interest and growth of cognitive ability.

Just recently, Krech published the results of studies undertaken at Berkeley which tend to confirm the hypothesis that a varied psychological environment is of crucial

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35Fiske and Maddi, p. 442.
importance for the development of man's brain. Krech throws out the "kitchen sink" approach to structuring enriched environments. Since language is probably the "clearest instance of a purely species-specific behavior," an environment which stimulates symbol growth and development would appear to be most beneficial to the creative process.

The external conditions necessary for the creative process are summarized as follows:

1. Psychological safety, which refers to absence of value judgment of the insight, acceptance of individual worth, and awareness of individual frames of reference.

2. Psychological freedom, which refers to the individual's freedom to choose the symbols which approximate the truest meaning of the insight as he perceives it.

3. Variety of stimulus, which refers to an environment which provides opportunity for enriched and varied experience.

An Illustrative Example

The following hypothetical situation is included to illustrate the possibility of a student's experiencing creative learning through the interaction of the internal and external conditions of creativity.

37 Ibid., p. 373.
38 Ibid., p. 374.
First of all, the very real possibility exists that the student will not come to the classroom possessing the required internal conditions. Whether or not he does is dependent upon his past experience. Certainly, the teacher cannot control the experience the student had formerly, but how the student chooses to perceive the new situation is influenced by his experiencing a new atmosphere provided by the teacher. But to say that his past experience is unalterable through his perception in new experience would be ruling out the possibility of growth. That possibility will not be admitted at this time.

A former negative experience of the student may well have temporarily closed his perception in any educational situation resembling the former. Yet, it is best to assume that the experience could not have been so negative as to have closed the student's mind permanently. Having built a defensive immunity, the student cannot respond without some concrete evidence that things are to be different. Providing psychological safety—that is, permitting the student to perceive that the teacher accepts his individual worth and is attempting to know his frame of reference—offers the hope of new evidence for the student. To say that such a reversal from "closed" to "open" in experience cannot occur is to say that any initial negative experience in education is not reversible through changed perception. That change is facilitated when the teacher affords the opportunity for the student
to alter his perception. As the student perceives anew, he is capable of experiencing the interaction of the two sets of conditions which make for creativity.

The following creative experience illustrates the teacher-student responses during a period of interaction. The assumption is made that Student A, possessing the internal conditions, enters Classroom X, which provides the external conditions. At a point in the classroom sequence, the teacher initiates the interaction that prompts the creative experience.

1. The class is reading Faulkner's "The Bear."
2. Student A notices in his reading that Faulkner clouds his descriptions of the forest and the bear with ambiguous diction which reflects a certain mystique. Student A notices the consistency of the mystique and faces the possibility that Faulkner may have had a reason for so doing. (The student is experiencing the novel openly.)
3. Student A desires to inquire into the possible reason for the author's including so much mystery when he wrote about the land. The student perceives that determining the reason would be valuable to him and would constitute a legitimate problem in the classroom experience. (By acknowledging his question and expressing himself, the student reveals his own autonomy of judgment and psychological freedom.)
4. At this point the teacher gets involved and gives the student inquiry momentum by posing several cogent questions:
a. Faulkner could not resolve in his own mind the South's position in regard to the land. Could the author's confusion over this issue be reflected in his works?

b. Could the land-bear mystique be a reflection of Faulkner's inability to find for himself a satisfactory answer to the age-old problem of the land and those who claim to "own" it?

(By raising these questions, the teacher provides a stimulus to the student inquiry by establishing a more fertile relationship between the subject and the student's interest.)

5. The student continues his process of inquiry. He is motivated by his original question and the stimulus afforded by the teacher (high activation level and variety of stimulus).

6. Considering the data he confronts (passages from the text which reflect the mystique and biographical information regarding Faulkner's inability to resolve the concern over the South's position in the land question), the student conceives of alternate planes of experience at once. That is, the juxtaposition of old data (mystique in the narrative) and new data (biographical information on Faulkner) affords the illumination of new ideas (capacity for juxtaposition).

7. The student is permitted the freedom to choose the symbols which he believes best express the new idea or solution he finds. Namely: William Faulkner's inability to settle
the land question in his own mind is reflected in the mystery which surrounds descriptions of the bear and the forest, symbols of the land in "The Bear."

The above illustration is offered as a very general example of the creative experience of a student. The experience was realized through the interaction of student, subject, and teacher. The conditions present for creativity made the interaction possible.

Some Implications for Education

The conditions for creativity discussed previously imply certain recommendations for enhancing the process of education. The following discussion of implications for education is intended for education in general; specific recommendations for the course in freshman English composition will be included in the final chapter. Implications for creative education will be subdivided into the following areas: (1) providing a structure of knowledge concerning the creative process; (2) providing for the enhancement of preparation, incubation, illumination, and verification.

Providing Structure

Many writers believe that if education sets out to promote creativity, it should do so by first acquainting the student with some general understanding of the creative process itself. One of Bruner's basic assumptions in The Process of Education is that the teacher's role is one of constructing a
curriculum which reflects the underlying principles of the process involved. An extensive familiarity with the creative process would enable the student to relate the activities of the course with the principles which give structure to those activities. Rendering the process worth knowing makes the context of the course more relevant and hence more compatible. Another value Bruner points to in acquainting the student with the principles of the process is that of transfer of training. An understanding of the rationale for a course is the main road to making transfer of that process to other disciplines. A student who is unable to see the relationship between the principle which substantiates a practice and the practice itself is likely to experience the disconnectedness Dewey speaks of when he discusses isolation of facts from meaning. Haefele also recommends that the teacher should explain the nature of the creative process, demonstrate it, and illustrate its usefulness for the future. Guilford refers to the need of providing a frame of reference for creative behavior which is comprehensive, systematic, and basic. In presenting

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40Ibid., p. 25.


42Haefele, p. 267.

information concerning the creative process, the teacher may run the risk of structuring or imposing a prerequisite for the creative act, unless he makes sure the student understands the overlapping of the various phases. In general though, it appears beneficial to provide some frame of reference or structure of knowledge to enable the student to understand the rationale of the creative process.

The Process

What follows represents suggestions for nurturing the four phases of the creative process. The dilemma in making recommendations for education is that two different activities are required: (1) fostering free thought and (2) fostering disciplined thought in order to verify insight. This dichotomy is acknowledged from the onset.

Preparation

During the last ten years educators have been afforded a wealth of advice on the subject of how to provide for the preparatory stage of the creative process. What has been suggested falls into three major categories: (1) enlisting involvement, (2) encouraging and providing for divergent thinking, and (3) deferring judgment of ideas produced.

Before the creative process can begin there must be some interest to be pursued or problem to be solved. More than likely the student will come to school with a whole host of problems; therefore, this requirement is satisfied from the
start. The problem lies in enlisting the student's involvement in that problem. Perhaps the key to any educational design is inviting the student to acknowledge an interest or problem and stimulating him to further inquiry. Haefele states that one way to encourage creativity is to confront the student with open ended questions, instead of insisting on unique answer problems. The teacher must not articulate the problem for the student, but rather tease that articulation from him. There are many ways by which the teacher can enable the student to acknowledge a problem. One of the most effective involves a critical examination of some of the ideas the student has taken for granted. Presentation of new subject matter may also offer stimuli to elicit student engagement.

A second recommendation is that of encouraging and providing for divergent thinking. Guilford's "structure of intellect" model provides for a division of intellectual factors including divergent thinking, or, the ability to think in different directions, sometimes searching, sometimes seeking variety. Encouraging the student to "think in different directions" has challenged writers in creative education to conceive of many innovative activities which are not being tested in school situations. One of these activities has been

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44 Haefele, p. 265.

labeled "brainstorming." Many writers have suggested that brainstorming is one of the best methods of encouraging divergent thinking. Osborn notes the need to provide for solo brainstorming as well as group brainstorming. Groups or individuals are asked to produce as many ideas on a given topic as they can. Underlying the theory of brainstorming is the belief that quantity breeds quality in ideative effort. Kneller states that the more ideas one can command, the more problems he can solve. Guilford, Haefele, Armstrong, Parnes, Torrance, and Hilgard are a few of the other writers who believe the activity of brainstorming is helpful during the divergent thinking process of the preparatory stage.

Another popular suggestion offered by writers who wish to encourage divergent thinking is that of providing exercises which whet or awaken the student's sensitivity and thus provide more stimuli for idea production. Parnes believes the exercises of "attribute listing" and "check lists" sharpen the student's perception and awareness of detail. Kneller thinks the teacher should encourage the students to value their own unique perceptions of reality by consciously setting

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46 Alex F. Osborn, "Development in Creative Education," A Source Book for Creative Thinking, p. 22.
48 Kneller, p. 82.
49 Sidney J. Parnes, "Education and Creativity," Teacher's College Record, 64 (January, 1963), 333.
out to demand higher sensitivity. According to these writers and others, ideational fluency is greatly enhanced by increased perceptual sensitivity.

To encourage divergent thinking and quantity of ideas produced during the preparatory stage, teachers should not rigidly structure idea-producing sessions. Most writers agree that during the phase of preparation, adaptive and flexible procedures should be incorporated to match the free thinking being done by the students. Gowan, Guilford, Meyers, Torrance, Parnes, and Moustakas support this contention in their writings.

Exercises in analogy production and heuristics have also been recommended to facilitate divergent thinking during the preparatory phase. Haefele writes that the teacher can ask the student to brainstorm analogies which occur to him during the idea production stage. Practice in making new combinations facilitates the entire creative process. Many writers regard the production of metaphor or analogy as the characteristic activity of creativity. At least two writers, Gowan and Haefele, recommend asking the student to keep a notebook of all the analogies he produces related to the topic under consideration. Bruner believes the use of heuristics (theorems which make for new associations) a valuable practice in encouraging intuitive and analytical thinking.

50Kneller, p. 87.
51Haefele, pp. 266-267.
52Bruner, pp. 63-64.
Finally, many writers contend that if the preparation stage of the creative process is to be successful, the teacher, as well as the student, must defer judgment of those ideas or data accumulated. Gordon defines deferment, that which follows speculation in the creative process, "... the capacity to discard the glittering immediate in favor of a shadowy but possibly richer future." MacKinnon also warns against prejudging the initial ideas which result during the preparatory stage. Ideas produced and data collected during the initial stage of the creative process should be considered tentative and only the ingredients out of which will come an eventual solution. The teacher should be cognizant of this fact and not attempt to deter the production of quantity of ideas by premature judgments of their value to the student. The student should also refrain from discarding an idea which at the time appears irrelevant to his problem. In keeping with the idea of deferred judgment, Parnes concludes that in light of the theories offered by Osborn and Gordon, the "best" idea may come near the end of the total production period.


55Parnes, p. 336.
Incubation

The period of incubation or gestation during the creative process is a time when the individual has removed his direct focus on the problem and is "digesting" data he has accumulated. Although the implications for educational procedure appear simple, their implementation may pose a problem to the teacher. During this phase, says Kneller, the student should be left alone. The problem for the teacher becomes one of knowing when the student has reached the saturation point and is ready to let his ideas ferment. There can be no truly "right" time since no two students reach this stage simultaneously. Yet there must be some cutoff, and the teacher is responsible for determining when and how it should begin. The apparent danger in so doing is to the learner, who may interpret the change of emphasis as an apparent removal of the problem, as a sign of giving up to "cover" the next topic. If, on the other hand, the student has become acquainted with the mechanics of creative process from the start, he will not be surprised when the change of emphasis comes. Yet, as Bruner points out, the teacher runs a risk by removing from the student the security afforded by direct confrontation with the designated goal.

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56Kneller, p. 87.
57Bruner, p. 65.
One procedure would be to make no contact whatsoever with the student for a predetermined length of time. Another method, one which requires more ingenuity and perhaps does not entail as much risk, is to continue contact with the student but alter the focus from the problem to a fringe area only indirectly related. This period would not be of so long a duration that the student lost sight of the original problem completely.

The prime function of the incubation period is to facilitate illumination. There can be no sure fire means to bring about illumination. For some it may come immediately after or during preparation; but for others, it may come after extensive brooding and incubation. The teacher must key his timing to what he believes to be the best schedule. There can be no certainty.

Directing attention to the fringe area of the problem appears to be the most promising and demanding procedure to allow for incubation and facilitate illumination. It is demanding because it entails a very careful selection and treatment of that which bears indirectly on the problem yet does not focus squarely on it. For example, after several sessions of defining the problem of value, comparing the several axiological bases for determining it, and permitting the students to produce as many ideas as they could as to what they value and why, the teacher would relax the direct focus on the problem of value by asking the students to read
a fictional account involving value judgments of others. By so doing, the teacher would be retreating from direct confrontation with the problem of value for each student, while considering a fringe interest indirectly related. Such a practice would in effect be a release from the original problem and would decrease the high degree of attention, which Taylor believes thwarts illumination at this stage.

In the incubation period, attempts toward relaxation prove more effective than deliberate attempts to force a new insight. Thinking aside, or thinking at right angles to the traditional thought stream, or even letting one's attention be more diffused and scanning rather than focused and concentrated, may facilitate the creative process. . . . At a certain stage of the process, can we add other pertinent information that upsets their conclusions, to see if their minds will take up the challenge anew? One key notion underlying some of our current study of creativity is that a high degree of definiteness or focus of attention decreases the chances for any unexpected or new insights.58

Illumination

Moments of insight usually occur during incubation or when the individual has saturated himself with information concerning the problem and then retreated from it. Chances of insight-inducing accidents are maximized after the shift from concentrated effort to a relaxation of mental effort. When insight occurs, the teacher should assume the position of one who appreciates authenticity. According to psychologists, Moustakas in particular, every insight that enables

the student to become himself is authentic.\textsuperscript{59} The authenticity of insight must be recognized if the creative process is to flourish in education. It is crucial for the teacher to respect the student's awareness of a novel insight, even though the teacher may have confronted the same idea many times before. Gowan notes that at this point many teachers feel threatened when they are not permitted to judge the value of a student's insight. "The development of the child's personal ability to evaluate is one which all teachers should encourage, but which, in fact, many teachers are threatened by."\textsuperscript{60} Accepting the insight is in fact an affirmation of the worth of the student. After accepting the new insight without qualification, the teacher must then initiate the second major activity of the creative process--that of encouraging the student to examine critically the meaning, merit, scope, and implications of what he has discovered.

\textbf{Verification}

"The mind should be trained to think creatively at the same time it is trained to think logically," states Kneller, who recognizes the educational dilemma of fostering two


differing mental activities simultaneously.\textsuperscript{61} Since verification requires reason, and reason depends not on spontaneity but logic, the cultivation of this stage of the process may appear contradictory to all that which preceded it.

Dewey's recommendations for verifying the products of insight are explicit.

But a complete, an integral, act of thought requires that the person making the suggestion (the guess) be responsible also for reasoning out its bearings upon the problem in hand, for developing the suggestion enough, at least, to indicate the ways in which it applies to and accounts for the specific data of the case . . . after calling out the spontaneous reflections of the pupils, their guesses or ideas about the matter, (the teacher) merely accepts or rejects them, assuming himself the responsibility for their elaboration. In this way, the function of suggestion and of interpretation is excited, but is not directed and trained. Suggestion is stimulated but is not carried over into the reasoning phase necessary to complete it.\textsuperscript{62}

One practical suggestion for teachers who wish to reveal to the student that illumination should be followed by carefully reasoned verification is offered by Kneller. He would expose the students to the works of the great minds of the past, not for imitation, but rather to show the elaborate extension and verification what started out as a single moment of insight.\textsuperscript{63} Supporting biographical evidence which described the diligence of the creator striving for the best possible verification could be included.

\begin{itemize}
\item \textsuperscript{61}Kneller, p. 78.
\item \textsuperscript{62}Dewey, p. 186.
\item \textsuperscript{63}Kneller, pp. 83-84.
\end{itemize}
As was noted earlier, extension and elaboration are at the heart of the verification process. Some of the techniques employed in the preparation stage are applicable for promoting extension and elaboration. Again, divergent thinking is required with the restriction of careful discrimination and selection of only relevant details. During the phase of verification, diverse symbolization is particularly useful. Distorting familiar symbols to bring about novel aspects of single insights results in versatility of expression and cognitive growth. The management of the media selected for communication can be facilitated by teachers who encourage trial and error selection rather than imitation.

By assessing the implications of insight, the student can learn to acquire the stamina to stand by his ideas or reject them. The discipline of expression is the final test of the individual's capacity to discriminate, to select carefully those symbols which approximate the ultimate realization of his insight. In guiding discrimination, the teacher should afford the student as much one-to-one communication as possible. Traditional lecture techniques which offer general rules of discrimination are inferior to individual guidance which has the advantage of being far more relevant to the student.

64Haefele, p. 268.
65Taylor, p. 4.
66Kneller, p. 85.
Summary

General suggestions for fostering creative education are

1. Acquaint the student with the basic structure of the creative process so that he may relate the underlying principles of the process to educational activities.

2. Provide for the four separate phases of the creative process:
   a. During the preparation stage, enlist involvement, encourage and provide for divergent thinking, and defer judgment of ideas produced.
   b. Enable the student to remove direct focus on the problem during the phase of incubation.
   c. Accept the authenticity of the idea which arrives during the illumination stage.
   d. Provide the impetus for the transition from spontaneous thinking to disciplined expression, encourage careful analysis, and provide for individual guidance during the phase of verification.
CHAPTER IV

A COURSE IN FRESHMAN ENGLISH COMPOSITION

The following design represents an attempt to construct a course in freshman English composition based on findings which have grown from the preceding inquiries into higher education, freshman English, and creativity. The description of the course will be divided into the following sections:

1. Objectives
2. Content
3. Activities
4. Materials
5. Enrollment and Staff
6. Evaluation
7. Sample Syllabus
   a. Introductory activities
   b. Sample unit.

Objectives

The course will seek to accomplish two ends:

1. To evoke creative thinking
2. To verify the results of creative thinking through methods of rhetorical exposition.

As has been pointed out previously, creative thinking is a worthy educational goal in itself, regardless of the
subject under consideration. To give it priority in a college composition class is to call attention to the idea or process which undergirds all effective written expression. Setting out to evoke creative thought does not insure good writing. Yet, to evoke creative thought is to bring into the student's experience the ideational process out of which effective expression grows. As noted earlier, creative thought will take finished, final form only if there is some means by which the work the imagination began can be completed. Thus, the second objective of the course is included—verification.

Some explanation is required for using the term verification. In a strictly denotative sense, the word verification refers to the process of substantiating by proof or confirming by evidence. A second denotation of verification often supplied is that of authenticating the truth. As was pointed out in the chapter devoted to the creative process, writers in the field of creativity, from Wallas (one of the earliest), to Kneller (one of the latest), have chosen to include the term verification as the final phase of the creative process. In keeping with the conclusion reached after surveying the selected literature on the creative process, the term verification will be used to mean the process by which the results of creative thinking (the illumination, the germinal ideas) are confirmed or substantiated. To confirm or substantiate is to impart substance or to establish firmness. Thus a second goal of the course is to find some method or process
by which the results of creative thinking can be given flesh or substance.

The method chosen for the process of verification is that of rhetorical exposition. Rhetorical exposition was selected for several reasons. First of all, a new idea does not come thoroughly worked out or organized. The student who attempts to give substance to an idea by "writing it out" is forced to establish a coherent relationship between the idea as he experienced it and the symbols, syntax, and developmental organization with which he chooses to represent it. Since the reason for selecting symbols or words to express his idea is to communicate to another, the writer must seek some pattern or organization of those symbols to insure the success of the communication. Any word sequence requires some manipulation to insure understanding. The term rhetoric itself implies the use or manipulation of words.¹

The main intention of the writer is to inform the reader. In the case of creative thinking, the writer wishes to inform the reader of the results of his endeavor--the illumination. Of all the methods of expression available to the composition teacher, rhetorical exposition appears to be the discourse most suited for this purpose. "The word exposition quite

literally means to set forth a subject. In order to set forth an idea, the writer is forced to examine that idea completely and seek to realize its nature by selecting word symbols which convey to the writer and the reader the explicit meaning of the concept.

Rhetorical exposition is most in keeping with one primary motivation for creative thinking—the desire to have a question answered. "A piece of exposition may be regarded as the answer to a question." The methods of rhetorical exposition grow out of the basic questions any thinker must ask himself about his idea when he sets out to communicate that idea to another. The methods of exposition are the ways the writer goes about expressing the nature of the illumination. These methods grow out of an answer to the central question about the illumination: What is it? Expository methods which best lend themselves to answering this question are identification, definition, description, comparison-contrast, and analysis. The specific objectives of each of these methods of exposition will be taken up later in the description of the course.

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3Ibid., p. 41.
Content

The selection of subject matter for the course was made on the basis of judgment of usefulness in facilitating the accomplishment of the above two objectives.

The first major objective of the course is to evoke creative thinking. Creative thinking does not occur without the impetus of the thinker's recognition of an interest or problem which is meaningful to him. To provide for this important recognition, activities designed for the course will include subject matter chosen on the basis of its relevance to student-selected areas of interest.

Choosing subject matter relevant to student interest becomes a difficult chore. In order to insure that each student can, in effect, locate and engage in a problem area, the staff may limit the focus from all possible problem areas to those related to specific interest areas, such as values, ethics (questions of conduct), and aesthetics (questions of beauty). Such a limitation is suggested so that there will not be so diverse a listing of subject areas to be confronted. From the subject area chosen, the staff will prepare a list of questions which will be presented to the class in order to solicit from them individual questions--the problem-centered content of the course. From these responses the staff will prepare six to eight questions to be confronted during the course. Out of each subject area will grow specific writing assignments which will be correlated with stages of the
creative process. During the preparation stages, and afterwards, if need be, the staff will offer data relevant to the subject under consideration. The staff will not attempt to offer data which present answers but rather offer data which will engage the student during the initial phases of the creative process. Those data may only be further questions which call on the student to extend his awareness of the problem. How these problems are to be located and used will be discussed in the section on activities.

A second major content area will concern the method chosen to be used to verify the illumination—rhetorical exposition. Coordinated with sessions devoted to the problem areas selected by the students will be sessions which seek to evoke student awareness of the expository method and its relationship to the mental processes involved in verifying the illumination. Following the sequence of the creative process, these sessions will come after the student has presumably confronted his problem, considered his data, and arrived at a tentative solution. The subject matter pertaining to separate methods of exposition will be determined by staff and students confronting the following basic questions about each method (the term "solution" will be used, and is to be considered synonymous with illumination).

Identification

1. What is the solution?
2. What is its origin?
Definition

1. What are the words which best convey the meaning of the solution?
2. What special connotations do these words suggest?

Description

1. What are the qualities of the solution?
2. How are the qualities best described?

Comparison-Contrast

1. What does the solution have in common with other solutions?
2. How does the solution differ from other solutions?

Analysis

1. What are the component parts of the solution?
2. What holds the parts together?

Answers to these questions will provide the content which will direct the organization and construction of the written expression.

Again, the content emphasis in the course will be determined by student interest and subsequent inquiry. Students will select problem areas within the general interest fields, seek solutions, and express those solutions through methods which offer direction via questions suggested by the methods.

A final subject matter to be included is information regarding the creative process itself. As was noted in the
preceding chapter, students who are made aware of the under-
lying process have a better understanding of the relevance
and significance of what is experienced in the course. Ac-
quainting the student with the general phases of the creative
process will be done during one of the early sessions.

Activities

The activities proposed for the course will be coordi-
nated with stages of the creative process and will be con-
ducted in lecture and laboratory settings. For each stage
of the process, specific activities will be included which
seek to enhance that stage and its subsequent processes. A
general description of activities planned for each stage
follows.

Preparation

During the stage of preparation, the student confronts
and articulates a question, seeks data relevant to that ques-
tion, and seeks tentative hypotheses. To serve that process,
the lecture activities propose to initiate student interest
and inquiry. Those activities may be described generally as
follows:

1. Having acquainted the class with the course objec-
tives, the teacher will relate those objectives to the sequence
of the creative process (brief explanations of preparation,
incubation, illumination, and verification) and attempt to
evoke student awareness of his own thinking processes.
2. Emphasis will be placed on the value of creative thinking and its verification. A sample list of possible values derived from such a study might include the following:

a. Creative thinking and its verification is a major goal of higher education.

b. Creative thinking and its verification is relevant to individual growth throughout life.

c. Creative thinking and its verification is a means of self-actualization.

d. Creative thinking and its verification is a means of seeking solutions to problems.

3. By providing the external conditions for creative effort (psychological safety, psychological freedom, and stimulus variation), the teacher will ask for student openness in experiencing an awareness of those problems or questions related to values for which he would seek answers.

4. The staff will prepare lectures which attempt to define the two general areas of interest. One such area may be axiology: ethics and aesthetics. The lecture may focus on the importance of seeking answers to these two important questions.

a. What is good?

b. What is beautiful?

5. Since being aware of articulating the problem is the key to initiating the creative process, several sessions will be given to motivating the student to confront the above two
questions. Such a session might grow from the class and instructor facing these questions:

a. What is a current value problem?
b. What are some problems in ethics, aesthetics?
c. What is the value of stating the problem?

6. At a time deemed appropriate by the staff, the members of the class will be asked to list as many situations or problems which challenge them to seek immediate solutions. (This activity will be assigned as an out-of-class exercise.)

7. The staff will take the questions from the class and construct a master list of six to eight questions which represent a consensus or representative sampling of student questions. Recommended procedures for constructing the list for the sample area of axiology are

a. The staff will subdivide the questions into two general groups, ethics and aesthetics.

b. Under each grouping, the staff will seek to find those questions which are similar in nature. For example, the two questions, "Why did I have to read certain books in high school?", and "What makes a poem a great poem?" might be combined in a general question, suitable for both, such as: "Why do certain literary works have value and others not?"

8. As a motivation to further inquiry, selected problems from the master list compiled by the staff will be presented during the lecture sessions.
9. These sessions, prepared by the staff, will seek to accomplish the following:

   a. Seek student understanding regarding the role data play in the preparatory stage of the creative process.
   b. Provide data relevant to the question.
   c. Provide a resource reading list.
   d. Suggest subsequent questions raised by the data.

The sequence of lecture-laboratory is purposeful. The lecture, generally speaking, is to evoke interest and initiate inquiry, whereas the laboratory which follows is designed to fulfill the activity begun in the lecture by creative experience. To further enhance the preparatory stage, laboratory activities will include

1. Exercises designed to prompt idea production
2. Group discussion work designed to promote ideation and active student participation.

The first of these involves providing written exercises which call for solo brainstorming or individual ideation. Having established the problem in the lecture and presumably initiated the process of inquiry, the teacher will pass out exercises which call on the student to produce as many ideas as he can regarding a specific aspect of the problem. For example, the question under consideration is a question involving values: "Why do some college students demonstrate?" Having confronted relevant data and background information
in the lecture, the student is called on to probe his own thinking since the lecture by answering key questions in the exercise. A general description of such an exercise is included to reveal how this may be done.

At the top of the exercise will be a concise statement summarizing the information provided in the lecture session. Example: "During the past several years, some college students in America have chosen to demonstrate in order to make known their grievances concerning Viet Nam, race relations, and administrative policies." Following the summary statement, the student will be asked to select one of the three grievances and answer questions regarding it. Sample questions might be

A. Why did you select this grievance over the other two?
   1.  
   2.  
   3.  
   4.  
   5.  
   6.  
   7.  
   8.  
   9.  
   10.

B. What are some key reasons for this grievance?
   1.  
   2.  
   3.  
   4.  
   5.  
   6.  
   7.  
   8.  
   9.  
   10.

C. What are the advantages of such demonstrations?
   1.  
   2.  
   3.  
   4.  
   5.  
   6.  
   7.  
   8.  
   9.  
   10.
D. What are the disadvantages?

1. 6.  
2. 7.  
3. 8.  
4. 9.  
5. 10.  

E. Why have students begun demonstrating now and not before?

1. 6.  
2. 7.  
3. 8.  
4. 9.  
5. 10.  

At the bottom of the exercise will be space provided for the student to write in tentative theses, hypotheses, or summary sentences revealing what he believes to be the answer to the question, "Why do some college students demonstrate?"

A second laboratory activity to provide for preparation involves group brainstorming or group ideation. After adequate time has been provided for completion of the handout exercises, the class will be divided into small discussion groups of seven to fifteen pupils each. The purpose of these groups is to stimulate exchange of ideas and further inquiry. The questions used will be the same as those on the handout exercise. Group ideation will give the student new ideas and often becomes more productive than solo ideation. At no point during these solo or group sessions will the staff attempt to impede the fluency of ideas by judging their quality or worth. Quantity of ideas will be sought.

Another activity designed to aid in the preparation phase will be the construction of a journal-notebook. The purpose
of the journal will be to provide the student an unstructured opportunity to write down ideas which come to him during the week, outside of the class sessions. He will be encouraged to use the journal daily and bring it with him to the laboratory session as an aid in the activities of the laboratory. The journal has several valuable uses. First of all, its inclusion makes the student aware that the creative process does not just occur in the classroom. Also, by writing down ideas which come to him during the week, the student will be forced to actualize his otherwise random thoughts into meaningful constructions. The journal is a record the student keeps for himself—no one else. There will be no one to impress or attempt to win. As such, it will provide the student an opportunity for complete honesty. The journal will also provide a place for the student to fail. That is, it may be a place where he can write out his ideas, experiment with words, test his findings. For the moment he writes in his journal, the student is free from all judgment, criticism, and evaluation, save his own. What matters in keeping the journal is the attempt to write, not the success of the attempt. Obviously, any practice in writing can be valuable. The journal will also encourage the free flow and articulation of new ideas. Having as many ideas on paper as possible will facilitate the incubation phase of the process which follows.
Incubation

Since the stage of incubation is one which requires a period of "brooding" or "sleeping on" the data confronted and hypotheses considered, there will be no specific class activities planned to enhance this stage. The staff may decide that at a given time the class should be permitted to get away from the formal work in lecture-laboratory and simply incubate. The stage of incubation has no time limit. One student may require little incubation and reach the stage of illumination quickly; whereas, another student may find that his incubation requires much more time. (Since there obviously is no specified time period of incubation, the staff must share the responsibility of deciding when the class should remove direct focus on a problem.) The journal-notebook may provide the student an opportunity to record his thought stages and decide when he is "ready" to remove direct focus.

Illumination

Like the stage of incubation, the illumination stage can hardly be planned for since the arrival of the idea cannot be anticipated directly. Yet, the student can be informed that once the idea arrives, he should immediately initiate the verification stage by attempting to "get on paper" the essence of his idea.
Verification

The method by which the lecture will attempt to relate methods of rhetorical exposition to the verification stage of the creative process may be described generally as follows:

1. Having established a list of questions, the student will be asked to select one question and seek to explore it by answering the following questions in regard to it:
   a. What is the question? (Identify it in one or two sentences.)
   b. What are the meanings of key words in the statement of the problem? (Define terms.)
   c. What is the situation out of which the problem grew? (Describe the origin.)
   d. How is this problem like others on the list, and how is it unlike others? (Compare-contrast.)
   e. What do the elements in the question have in common? (Analyze.)

(Attempting to answer these questions about the problem he selects will acquaint the student with the five methods of rhetorical exposition selected for the course and five basic questions which must be answered in attempting to set forth the illumination.)

2. After the student has attempted to answer these questions, a general lecture will be presented which seeks to define the function of exposition and its usefulness in expressing the results of creative thinking.
3. That lecture will include the following major ideas:
   a. The purpose of exposition is to set forth an idea.
   b. In order to set forth an idea, certain questions must be confronted, such as: What is it? What does it mean? How is it put together?
   c. These questions embody the interest the question holds for the writer.
   d. To communicate a subject to another involves setting forth answers to the basic questions about that subject.
   e. Thus, the writing discipline selected for this course, rhetorical exposition, grows out of the mental process by which one determines the nature of his concepts or gives substance to his new ideas.

4. As each of the five methods is employed later in the course, separate sessions devoted to exploring the uses of each will be included.

   To further enhance the stage of verification, laboratory activities will include the following:
   1. Supervised writing and revision sessions
   2. Remedial work (when needed).

   The central activity of the laboratory will be student writing—the expression of the findings resulting from the creative process. Although most of the writing assignments will be completed outside of class, the student will work on
thesis statements, outlines, and theme editing-revision in the laboratory. One major reason for including the laboratory is to provide for staff-student engagement during the writing process. Members of the staff will be available to offer advice and judgment as to the method and form of student constructions.

In accord with the rhetorical method chosen to convey the student's findings, the staff will first of all ask the student to apply the question inherent in the method to the tentative solution he has formulated. In the case of definition, the student will attempt to answer a question such as, "What is the meaning of your finding?" To answer the question, the student will have to define the terms and general meaning of his solution. Such a task requires a systematic process of finding and expressing the precise meanings of terms used in the solution. The student will be encouraged to use that procedure as a guide to the organization and structure of his written expression. Such a procedure of communicating to another the results of an inquiry requires unit, coherence, and organization.

Laboratory sessions which follow lectures on rhetorical method will be primarily used as writing laboratories in which the students attempt to express their findings through the rhetorical method under consideration. Specific activities for these will include the following:
1. The class will be informed that the purpose of the writing laboratory will be to apply the rhetorical method discussed in the lecture to the composition of a theme which informs the reader of the student's solution to the problem under consideration.

2. The beginning point for such a composition will be the tentative thesis which grew out of the preceding laboratory session.

3. Using his thesis, the student will be asked to construct an outline which follows the purposes set forth in the rhetorical method.

Example:

Question—"What is a good education?"

Thesis—"An education is good if it enables me to think critically and communicate my thought intelligibly to another."

Rhetorical method—Definition (the purpose of definition is to discover and set forth the meanings of words).

Purpose of the composition—To set forth the meaning of the thesis by defining the words used in it. (An outline may be constructed using this purpose as a guide.)

4. The staff will be available for consultation during the laboratory session in which these activities are begun.

The finished product, the student's composition, will be completed out of class and turned in at the next lecture session.
Laboratory sessions will also provide time for student revision of themes which have been evaluated and returned. The advantage of having a staff member available to aid individual students revise their compositions is that he provides the opportunity for intimate student-teacher communication.

Although it is assumed that college freshmen come prepared with an adequate background in the fundamentals of writing—spelling, grammar, and mechanics—such is often not the case. To announce this assumption at the beginning of the course does very little for the student who continues to write sentence fragments. Remedial work in the course will be assigned when the staff determines that a student does not possess the background in fundamentals necessary for the minimal writing assignments in the course. Such work will be assigned in the following manner:

1. A student who fails to show a knowledge of writing fundamentals will be assigned remedial work.

2. The remedial work will consist of exercises in a programmed grammar designed for that purpose.

3. Class time will not be given to working these exercises.

4. Remedials who show no sign of improving will be encouraged to seek individual help from staff members.

Materials

Students will be asked to obtain the following materials:

1. A standard college dictionary
2. A notebook in which a journal will be kept and compositions and laboratory exercises retained

3. A programmed grammar (to be obtained only upon the request of the staff).

Staff members should obtain the following materials:
1. Resources which include information on the creative process

2. Resources which contain data relevant to the selected class problems

3. A standard college rhetoric which contains information concerning methods of rhetorical exposition

4. (Optional) Any one of the following creative performance tests, which have been developed by psychologists to assess certain traits or aspects known to be part of the behavior of a creative individual, may be used (this list is taken from Heist):


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Enrollment and Staff

The preceding course was designed for a class of seventy-five freshman students staffed by two graduate assistants and one full-time member of the English faculty. Classes in freshman English composition have traditionally enrolled twenty to twenty-five students. For the most part, in large universities these sections are taught by graduate assistants seeking advanced degrees. Merging three traditional sections has the advantage of combining the talents of three people as well as providing composition students with an experienced English teacher—an opportunity not often afforded freshman English students. Another major advantage of such a plan is the opportunity for apprentice teachers of English, the graduate assistants, to work closely with an experienced member of the staff. The primary duties of each are as follows:

1. The experienced faculty member
   a. To hold weekly staff colloquiums to plan and coordinate lecture and laboratory activities
   b. To conduct the majority of the lecture sessions
   c. To counsel graduate assistants.

2. The graduate assistants
a. To conduct laboratory activities
b. To work directly with individual members of the class during writing and revision sessions
c. To aid in initiating group discussions
d. To evaluate student compositions.

Evaluation

Evaluation involves judging the worth of something. Judgment presupposes standards or criteria. The two objectives for this course imply certain standards. To evaluate students in the course, the staff will attempt to determine two things:

1. Did creative thinking take place?
2. Were the results of creative thinking verified through methods of rhetorical exposition?

In answering these two questions the staff will be guided by their answers to the following questions:

1. Was there a creative thinking experience?
   a. Was an interest or problem recognized, defined, and articulated?
   b. Was there an attempt to gather data relevant to that problem?
   c. Did hypotheses or tentative solutions arise?
   d. In general, did the student experience creative thinking?

2. Were the results of creative thinking verified through methods of rhetorical exposition?
a. Did the student demonstrate he could set forth his findings by employing the separate methods of rhetorical exposition?

b. Were the demands of rhetorical exposition—clarity, unity, coherence, and organization—met within the written construction?

c. Did the student demonstrate a knowledge of the fundamentals of writing—spelling, grammar, and mechanics—necessary for rhetorical exposition?

d. In general, did the exposition succeed in conveying the writer's findings?

Staff members will make evaluations based on answers to the above questions.

Compositions evaluated by the staff will be returned to the students. Staff evaluations of those compositions will appear as written comments on or attached to the compositions. No letter grade will be given.

To determine a student's final evaluation, the staff will utilize the eight-question criteria above to determine whether the student succeeded in experiencing creative thinking and whether he succeeded in verifying the results of his thinking through methods of rhetorical exposition. A student's final evaluation will either be Pass or Fail.
Preliminary Activities

The following activities are introductory ones which should precede the first major unit.

1. Acquaint students with the course objectives, content, activities, materials, and evaluation procedures.

2. Provide illustrative example which includes aspects of the creative process, such as:
   a. Recognize a problem involving values
   b. Include data relevant to that problem
   c. Set up a tentative hypothesis
   d. Attempt to extend or elaborate the hypothesis through thorough discussion
   e. Note the importance of verifying the hypothesis by a critical examination of it.

3. Relate the process involved in the preceding five steps to the objectives of the course. Note the fact that including methods of rhetorical exposition results from the need to extend the findings of the thinking process begun earlier.

4. Ask the students to bring a list of examples of their own thought processes in action to the first laboratory. For example, students may be asked to list solutions or actions which grew out of their own value judgments.

5. During the first laboratory, pass out exercises which contain the following instructions:
a. From the list of examples of past problems in, for example, value judgment, select one and answer these questions:

(1) How did you become aware of the problem?
(2) What followed your recognition of the problem?
(3) How did you "set to work" on finding a solution?
(4) When and how did the hypothesis appear?
(5) What did you do to attempt to verify the solution?

b. After answering the above questions, the students will be asked to write theme #1, a diagnostic theme, during the remainder of the laboratory period.

The general writing assignment will read: Write a personal essay in which you describe the thought processes involved in your finding and solving the problem you have selected from the list.

6. The purpose of the second lecture will be to evoke more interest in the creative thought process and encourage the students to begin constructing a list of these problem areas for which they would seek answers. The following suggestions should be provided to enable the students to find problems:

a. Problems should be real and pertinent to the student.
b. Problems may relate to the student's new experience—college, or to any of the following large subject areas:

(1) Topical affairs
(2) Controversial subjects
(3) Theoretical or speculative problems
(4) Problems involving goals, attitudes, or policies for future actions
(5) The problem of choosing between policies or goals already existing.

(This list is only suggestive. The staff may choose to offer examples for each as further illustration.)

Laboratory #2

1. Ask the student to select three questions or problems from the list he has brought with him. These three he will consider most relevant to him.

2. Pass out exercise sheets containing the following instructions:

a. Identify the problem as precisely as possible by writing a thesis question.

b. Define key words in the question.

c. Describe briefly the situation out of which the problem grew.

d. How is this problem like others on your list? Unlike?

e. Analyze subproblems suggested by the question.
(The student will follow these instructions for each of the three problems. These sheets and the students' original lists of questions will be used by the staff to compile a master list to be used during the remainder of the course.)

3. Group interaction--The seventy-five students will be divided into six to eight small discussion groups. The students will be informed that the groups' purpose is to provide for student discussion of the course activities. The discussions will be unstructured and unsupervised. The students may use this time as they see fit.

4. Return theme #1 and ask that the remainder of the period be spent revising theme #1. Staff members will circulate and interpret remarks on the papers.

A Sample Unit

The following unit is included to illustrate the general sequence of course activities designed to bring about fulfillment of the course objectives. The unit represents a combination of subject and activities prepared to enhance the four stages of the creative process. (To separate the four phases of the creative process is a simplification and perhaps a distortion of what actually occurs. No two students will reach the illumination stage simultaneously. For some, the preparation stage has been going on for years. For others, an illumination may never arise. No course or staff can control these variables.)
Preparation.--Having prepared a master list of some six to eight problem areas, the staff will present the first question during the lecture session. For the purposes of illustration for this unit, the following hypothetical problem will be used: "When is incredulity harmful?" To answer the question, each student will have to examine his own experience and judge the effect of his having rejected an idea without critical examination.

Lecture #1 will include the following:
1. Present and explain the problem.
2. Provide data relevant to understanding the significance of the problem.
   a. Include topical examples, such as: "If God had intended us to travel in the air He would have provided us with wings."
   b. Include reasons for inability to entertain new ideas, such as twisted logic.
3. Note the fact that in order to achieve a unique answer to the problem, each student must examine his experience.
4. Emphasize the importance of the student's finding for himself an original answer to the question.
5. Emphasize the notion that illumination usually occurs when the mind is "stuffed" with facts concerning the problem.
6. Encourage free thinking and quantity of ideas.
7. Ask students to begin using their journals to jot down ideas as they appear.
Laboratory #1

Assume inquiry has begun.

The exercises provided are included as a stimulus to production of ideas. Questions included on the exercises will call on the students to extend their thinking. Such questions might be:

1. What are the ideas you have had which most likely will lead to a solution?

2. About each idea, answer the following:
   a. What are its advantages?
   b. What are its disadvantages?

3. What does each idea have in common with the other ideas? (forced relationship)

4. What new ideas result from these relationships?

5. Can the problem now be divided into several major areas of concern? What are they?

(Provide at least one hour for the students to work on these exercises.)

The second half of the laboratory will be spent in group work. Each group may use the set of questions in the exercises as a starting point for discussion. It is hoped that as a result of solo and group ideation activities, each student will have progressed in his thinking to the point that

1. As many phases of the problem as possible will have been considered.

2. Subproblems will be acknowledged and attacked.
3. Data and resources will be confronted.
4. Most likely solutions will be considered.

At this point in the unit, the staff must determine if sufficient time and activities have been provided for preparation.

**Incubation and Illumination.**—Following the preparation phase, the staff may allow for some period of incubation and illumination, during which the student will presumably achieve a solution.

**Verification.**—Present the method of rhetorical exposition which will be used to verify the solution the student has found. The first method to be used may involve identification-definition, means to express an answer to the question, "What is the finding?" Emphasis in this lecture (and those which follow on other rhetorical methods) will be on the relationship between the method of exposition and the process by which the solution appeared. Ideas such as these will be included:

1. The creative process culminates in the verification of the finding.
2. Like the origin of the problem, the expression of the verification results from the need to answer a question.
3. In this case, the question is "What is the finding?"
4. To answer the question one must identify the finding and define those terms used to convey its meaning.
5. To achieve these ends and succeed in communicating to another, the writer should seek the following:

a. Unity--Each sentence should contribute something to the central thought being expressed.
b. Coherence--Sentences should be joined in a clear, logical sequence.
c. Organization--The development of the composition should follow a pattern of organization. That pattern will depend on the method of rhetorical exposition chosen. Generally, the organizing principle will be a thesis statement which is an answer to the question the rhetorical method poses.

Laboratory #1

The first in-class composition, a paragraph, will be begun in the laboratory. Using the tentative solution he has found, the student will be asked to write a thesis sentence which contains an answer to the question the rhetorical method poses, namely, "What is it?" The thesis will attempt to identify and define the student's finding.

At least one-third of the laboratory session will be devoted to the student's attempts to construct a thesis sentence which meets the above requirements. Staff members will circulate and offer suggestions and advice when and if requested.
A second activity will involve using the thesis sentence as a guide to the development of the paragraph. The students will be reminded that the verification stage of the creative process involves giving substance to the illumination. The thesis will be regarded as a precise statement of the illumination. To give it substance and to fulfill the requirements of the rhetorical method chosen, identification-definition, the student will be asked to answer these questions:

1. What ideas in the thesis require elaboration in order to secure a successful identification of the central idea?

2. What terms need defining in order to secure a complete definition of the central thought?

Answers to these questions will provide specific details which the student will use to construct the paragraph.

The remaining time in the laboratory will be devoted to writing the paragraph. Staff members will be available for individual consultation during the session. The completed paragraph will be due at the next lecture.

The above sample unit seeks to be representative of the schedule of activities for the entire course. Lecture-laboratory sessions will follow the same sequence, namely:

1. Lecture—to provide data and initiate interest in problem selected for consideration

2. Laboratory—idea production sessions, achieved through (a) written exercises and (b) group dialogue
3. Lecture—to relate rhetorical methods to verification of finding resulting from inquiry

4. Laboratory—writing session which enables student to use rhetorical method in expressing the result of his inquiry.

Conclusion

The English composition course designed for this study attempts to seek and thereby reaffirm the university's most important function—the creative growth of its students. Although the course may not wholly justify the existence of freshman English, it is intended to coordinate more closely the aims of creative education with those of English composition. In constructing the course, primary emphasis was placed on the student's initiating his own processes of inquiry. By seeking original thought and its articulation through rhetorical exposition, the course attempts to align its activities with the four phases of the creative process—preparation, incubation, illumination, and verification.

The success of the course will depend in part upon whether the students bring with them the prerequisites for creative education, the internal conditions necessary for creativity. More important to the educator are the external conditions which for the most part determine whether a creative experience is realized or not. The experience of teaching the course and attempting to supply the external conditions
provides the surest test for determining the value of the course. Though the phases of creativity are provided for and encouraged, no two classes following the same design will yield precisely the same results. The controlling element and ultimate variable which appears to determine whether the course succeeds or not is the teacher, who alone holds a unique and commanding position between the internal conditions with which he has to work and the external conditions which he must seek to supply. It would be appropriate to have the course researched in an experimental setting, using standardized instruments. One attempt has already been made to teach the course. (See Appendix.)
APPENDIX

The preceding course design was employed for the first time in a freshman English composition section at Northeast Louisiana State College, Monroe, Louisiana, during the first six-week summer session of 1969. The course was used in two sections of approximately thirty-five students each. No arrangements were made to use a complete staff of three members. Instead, one teacher conducted the lecture and laboratory sessions. Following the introductory activities and the completion of one unit, a questionnaire containing 100 items was administered to each class in an attempt to gauge student reception of the course. The results of that questionnaire follow.

1. Did you see any connection between class discussion and writing assignments? (97% answered YES)
2. Did you have to do a lot of thinking prior to writing? (90% answered YES)
3. Do you believe you were permitted academic freedom in this course? (83% answered YES)
4. Have you discovered any new ideas for yourself? (83% answered YES)
5. Was writing a composition necessary in order to actualize these ideas? (63% answered NO)
6. Was the class environment a controlling one? (73% answered YES)
7. Were you comfortable choosing your own subjects or interest areas? (81% answered YES)
8. Did you feel comfortable after the return of the ungraded theme #1? (70% answered NO)
9. Would you like to see more courses taught using the format employed in this class? (86% answered YES)

10. Did the class environment nurture original thought? (87% answered YES)

11. Would you like to spend more time in drill on spelling, grammar, and vocabulary? (84% answered NO)

12. What was the focus in this class?
   a. Inquiry (10%)
   b. Methods of writing (13%)
   c. Value judgments (27%)
   d. Proper style
   e. Intellectual development (30%)
   f. None of the above (2%)

13. Does the course appeal to you? (81% answered YES)

14. Do you feel you are being trained? (71% answered YES)

15. Do you feel you are being educated? (95% answered YES)

16. Would this course be good for all freshman? (84% answered YES)

17. Do you believe you have creative potential? (67% answered YES)

18. Has this course enabled you to realize that potential? (Answer only if YES response given to #17) (49% answered YES)

19. Has this course been useful in helping plan your future? (56% answered NO)

20. The "energy" you brought with you to this class was
   a. Thwarted (5%)
   b. Increased (63%)
   c. Stayed about the same (30%).

21. Do you believe your success in this course depends on your receiving the correct data from the teacher? (51% answered NO)

22. Has this course influenced your "life style"? (56% answered NO)

23. Has this course upset your emotional equilibrium? (57% answered NO)
24. Do you feel an adaptive role is necessary in order to succeed in this course? (59% answered YES)

25. Would anything in this course help you later on to resolve any conflicts or solve any problem? (92% answered YES)

26. Are you presently confronting an identity crisis? (67% answered YES)

27. To resolve that crisis, this course is
   a. Having no effect (22%)
   b. Helping (54%)
   c. Hurting (5%)

28. Do you believe the class discussions are controlled by the teacher? (56% answered NO)

29. Does the academic-intellectual program at this college have a strong intrinsic interest for you? (51% answered YES)

30. Does this course help you in any way to prepare for your vocation? (86% answered YES)

31. Is this course relevant? (76% answered YES)

32. Is the teacher trying to make you accept his beliefs? (97% answered NO)

33. Do you regard free inquiry as a threat? (87% answered NO)

34. Do you feel it safer to conform to the most expedient path leading to the degree? (57% answered YES)

35. Is intellectual conformity a good educational end-product? (52% answered NO)

36. Do you believe you have participated in helping direct this course? (52% answered NO)

37. In this course, your self-expression was
   a. Thwarted (6%)
   b. Encouraged (86%)
   c. Put down (8%)

38. Has this course provided any incentive for you to explore your identity? (84% answered YES)

39. Is college too complex? (81% answered NO)
40. Which do you believe to be the more important college function:
   a. Teaching (51%)
   b. Research (46%)

42. Should this course be required? (76% answered YES)

43. Did you like English in high school? (71% answered YES)

44. Has this course altered that attitude? (73% answered NO)

45. Were you called on to utilize past experiences in this course? (63% answered YES)

46. Have you become aware of new, unanswered questions? (84% answered YES)

47. Were the solutions you have realized uniquely yours? (54% answered NO)

48. Did your illuminations or solutions provide fulfillment or satisfaction? (63% answered YES)

49. Did your solutions resolve some conflict? (63% answered YES)

50. What was the most difficult task you confronted during preparation?
   a. Recognizing the problem (9%)
   b. Articulating the problem (35%)
   c. Gathering data (21%)
   d. Producing hypotheses (30%)

51. Were you aware of an incubation period? (63% answered YES)

52. Did the illumination come easier after removing direct focus on the problem? (67% answered YES)

53. Do you believe your solution was dependent upon data from the prep period? (73% answered YES)

54. Did your "answer" arrive by trial and error or did it just come?
   a. Trial and error (44%)
   b. It just came (38%)

55. When it arrived, was it a complete solution in itself? (83% answered NO)
56. Were you aware, intuitively or otherwise, of its coming? (51% answered YES)

57. Did "writing it out" help actualize its meaning for you? (78% answered YES)

58. To verify your illumination or "answer" did you use
   a. Reason (19%)
   b. Insight (2%)
   c. Both (78%).

59. Were you aware of any former mental habit which restricted your thinking in this course? (67% answered NO)

60. Did you experience openly in this class? (51% answered NO)

61. Has this course helped you overcome any less adequate habits of thinking or perception? (78% answered YES)

62. Has this course altered a past habit? (51% answered NO)

63. Was intellectual detachment necessary to examine past beliefs or mental habits? (67% answered YES)

64. Did you ever feel defensive in this class? (63% answered YES)

65. Did any new idea or fact threaten you? (57% answered YES)

66. Have you become more aware of past experience? (76% answered YES)

67. Were you compelled to inspect your mental habits? (68% answered YES)

68. Do you believe you are "open-minded"? (75% answered YES)

69. Was the source of evaluation of your ideas
   a. Your own (49%)
   b. A teacher's (3%)
   c. A friend's (2%)

70. Did you feel pressure to value certain ideas and not others? (67% answered YES)

71. Were you called on to "juggle" several thought patterns or ideas at once? (78% answered YES)

72. Did you succeed in doing so? (48% answered NO)
73. Did you find this course to contain variety, novelty? (92% answered YES)
74. Were your experiences varied in this class? (89% answered YES)
75. Were you stimulated to think more deeply? (97% answered YES)
76. Did you feel the teacher placed a value judgment on your insights or ideas? (54% answered YES)
77. Was your insight an "extension" of you? (89% answered YES)
78. Did the teacher's comments on your themes threaten you personally? (79% answered NO)
79. Were you given the privilege of determining the "rightness" of your insight? (92% answered YES)
80. Has your worth as an individual been affirmed in this class? (68% answered YES)
81. Do you believe the teacher has understood your frame of reference? (63% answered YES)
82. Do you believe the teacher has accepted you? (83% answered YES)
83. Do you believe the teacher took into account your point of view? (86% answered YES)
84. Were you permitted to choose the word symbols which you thought best conveyed your ideas? (90% answered YES)
85. Do you have a general understanding of the phases of preparation, incubation, illumination, and verification? (90% answered YES)
86. Do you have any better understanding of the process which underlies effective thinking and writing? (89% answered YES)
87. Is this course too highly structured? (79% answered NO)
88. Do you believe free thought was fostered in this class? (90% answered YES)
89. Do you believe disciplined thought was fostered through writing assignments? (52% answered YES)
90. Did you become stimulated or involved during class discussions? (90% answered YES)

91. Did you experience divergent thinking? (thinking in many different directions) (89% answered YES)

92. Were others' comments a stimulus to your own thinking? (90% answered YES)

93. Do you believe quantity of ideas breeds quality? (70% answered YES)

94. Do you believe there was any reason for the occasional change of emphasis in the course? (84% answered YES)

95. Do you believe the teacher appreciated the authenticity of your illumination? (89% answered YES)

96. Can creative thinking be taught? (59% answered NO)

97. Do models of "great" writing provide help for you as a beginning writer? (70% answered YES)

98. Do you believe this course to be "traditional"? (63% answered NO)

99. Do you think the teacher thinks he is succeeding? (90% answered YES)

100. Would you select this particular section if you had the choice again? (83% answered YES)

The course was taught near the end of the dissertation writing. It was not possible to follow the course design precisely because of lack of staff members and the short summer session. It was not possible to research the teaching of the course in an experimental setting. Nonetheless, certain suggestions for improving the course did derive from the initial teaching experience.

The experience of teaching the course provided an exploratory opportunity to determine whether a teacher could use the
syllabus design with some degree of success. The degree of that success was determined by examination of student response to the questionnaire, taking into account operational limitations which could not be anticipated prior to the teaching. The following list of suggestions or recommendations is included to indicate possible means by which the course could be improved in light of this one experience with it.

1. Compiling a master list of six to eight problem areas to be used throughout the course is a somewhat ambitious undertaking for the first week or two of the course. An apparently better method would be to let the first theme's content suggest subsequent problems or areas which arise in the student's own writing. Such a practice would afford a degree of continuity and would not freeze the content areas. Each subsequent theme would in turn uncover certain unanswered questions which would provide the impetus for the next writing assignments.

2. When the class is employing the rhetorical method of definition, it would be helpful to include information about the use of the dictionary. Many students were unaware of the wealth of information provided in one dictionary entry—pronunciation, inflectional forms, attributive nouns, etymology, usage notes, synonyms, status labels, cross references, parts of speech, as well as denotations.

3. Since 70 per cent of the students responding to the questionnaire indicated models of "great" writing would give
them help in their own writing, samples of professional writing might be supplied and analyzed. If such samples are provided, the teacher should seek to emphasize the careful focus and elaboration the writer employed to verify his insight. No attempt should be made to judge the idea but only the method by which it was verified.

4. Listing and discussing the values of creative thinking may not be necessary. By providing good examples, the teacher should make these values obvious to the class.

5. Some effort should be made to reward the student who appears to be the freely participating, responding individual. This reward may come in the form of a comment in writing or a statement during a discussion session.

6. An attempt should be made to expand the resource list to include more than just books on the problem area under consideration. Such a list might include movies, cultural events, or television programs.

7. The brainstorming exercises handed out during laboratory sessions should not be limited to in-class activities. It was found that many students could produce far more ideas, and apparently better ones, when permitted to take the exercises home.

8. During the verification stage, more emphasis should be placed on the student focusing his attention on writing smaller units--sentences and paragraphs. Expecting complete compositions made up of several well developed paragraphs
often detracts from the student's attempt to distill his key ideas into sharp, tight statements.

9. Caution should be exercised before reading aloud student writing and making critical judgments in front of the entire class. Such a practice may jeopardize one of the essential external conditions, psychological safety.

10. More laboratory time should be spent in supervising student writing. Such supervising may involve having each student come to the teacher and seek guidance in a one-to-one consultation. Much can be accomplished in only a few minutes when a teacher attempts to speak specifically to an individual writer and his particular writing weakness.

11. The teacher should make an effort to read and re-evaluate theme revisions. Such a practice provides the writer the security that his revised work and "improvement" have not gone unnoticed.

12. Many remedial writers may go unnoticed until one-third of the way through the course because of the emphasis on other phases of the creative process. A good diagnostic exam given at the beginning of the course would enable the teacher to locate remedials and prescribe for them.

13. Too much direct explanation of the four phases of the creative process may confuse the student as to what the course involves. A more suitable approach may be to provide illustrations which exemplify these phases.
14. Since 35 per cent of the students responding to the questionnaire indicated they had the greatest trouble identifying and articulating their questions, more time should be provided for encouraging the student to actualize his problem through concise written statements.

15. Many students indicated they were unable to see the method of exposition as a "natural" outgrowth of the creative process. The teacher should prepare carefully the transition from "free thinking" to "disciplined thinking" by including illustrations of how the one completes or supplements the other. (Writing samples may be of use in this case.)

The above recommendations are offered as tentative suggestions for improving the course and eliminating some of the weaknesses which appeared during the first administration of the course. During the administration of the course, nothing was found to shake the confidence in the meaningfulness of such a course.
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