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BIBLIOTHERAPY ON THE PERSONALITY AND  
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THE EFFECT OF SHORT TERM CLASSROOM BIBLIOTHERAPY  
ON THE PERSONALITY AND ACADEMIC ACHIEVEMENT  
OF REFORMATORY INMATE STUDENTS

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CHARLES M. WHIPPLE, Jr.

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THE EFFECT OF SHORT TERM CLASSROOM BIBLIOTHERAPY  
ON THE PERSONALITY AND ACADEMIC ACHIEVEMENT  
OF REFORMATORY INMATE STUDENTS

APPROVED BY

Henry Angelino  
P. J. Ruppice  
Frank J. Bertala  
A. F. Smith  
Robert M. Smouse

DISSERTATION COMMITTEE

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CHAPTER I

THE PROBLEM: ITS PURPOSE AND DEFINITION

Introduction and Justification of Research

The purpose of this study is to examine the applicability of group bibliotherapy to a reformatory classroom situation. It is reasonably well established that the treatment of behavior, of disturbed or even disordered behavior, can be facilitated by the use of appropriate books. It is now becoming recognized that the newer approaches to treatment in the form of Metrazol or electric current, or treatment by the so-called tranquilizing drugs is of little significance. These are merely adjunctive and as such make possible the administration of psychotherapy which is the primary treatment for maladjusted behavior. Harriman defines psychotherapy as "the treatment of disorders by the use of persuasion, suggestion, educational techniques, occupational therapy, lay or religious counseling."<sup>1</sup>

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<sup>1</sup>P. L. Harriman, The New Dictionary of Psychology (New York: Philosophical Library, 1947), p. 276.

Psychotherapy is basically personal influence exerted by one individual on another. In extending this thesis further, books can be seen as adjunctive to people.

There are several justifiable reasons for using books in the re-education of the recidivist. As the inmate student reads, it is as if he were having a conversation with the author. It is true that by merely reading, he could ostensibly miss those subtle influences created by a face-to-face personal contact. Undoubtedly this fact constitutes a distinct loss. However, as a compensation, the inmate student receives in the book a better organized and more orderly presentation of ideas than he would in the course of a conversation or lecture. Another possible advantage to the use of bibliotherapy is that he is always permitted to lay aside a book to resume the vicarious conversation with the author at a more suitable time. A book can extend the influence of the teacher, counselor, or prison psychologist far beyond the time personally spent with the student. Having been directed by the teacher to read the book, he can conceivably treat the ideas and expositions contained therein as if they came directly from the teacher instead of a distant and unknown author. Thus, the inmate student can recall crucial and possibly traumatic experiences from his own past in the same manner as if he were in the presence of a highly trained therapist without sensing the pressure noticeable in an individual therapy situation. Books, moreover, can go to a much greater depth in explaining complex behavior problems than the reformatory teacher who is pressed for time and limited by not having adequate training enough to present a uniformly lucid and effective exposition of ideas.

This last point is particularly germane to this study in that most reformatory classroom teachers are not adequately trained in counseling and psychotherapy. Indeed, as Eckenrode comments: "The institution teacher is usually a transplant from the public school. His specific training for teaching in an institution is conspicuous by its absence."<sup>1</sup>

No psychologist would make the claim that books on social education or mental hygiene could effectively substitute for a trained psychotherapist. Nevertheless, a statement to the effect that in conjunction with a therapist or well-trained institution teacher, a mental hygiene book, particularly if it is discussed in a non-threatening classroom atmosphere, can contribute very effectively to the treatment procedure.

Correctional educators are presently seeking for a satisfactory approach to effect greater inmate academic achievement, but as one educator comments: "Many inmate students make acceptable academic progress, but we have yet to prove a link between educational advancement and correction. We believe that such a link exists--but we have yet to identify it."<sup>2</sup> This research study has as its basic intent to pursue the problem of ascertaining if there is a "link" between the correctional process and academic pursuits in the reformatory classroom.

Correctional educators are concerned for the fact that not only are prisons poor substitutes for the kind of environment that facilitates internalization of constructive values, but an individual's receptivity changes so that, "it becomes difficult for any classroom procedure to put

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<sup>1</sup>E. C. Eckenrode, "Correctional Educators, Awake," Journal of Correctional Education, XVIII (April, 1966), p. 4.

<sup>2</sup>Ibid., p. 4.

more than a thin coat of paint on an already existing structure. Too often we have not even found an instructional language that conveys meanings to those we would instruct."<sup>1</sup> This study in attempting to delineate a successful method of "linking" the correctional process and academic progress presents information to assist the institution teacher, with his limited amount of time and training, to become more efficient in conveying the meanings of rehabilitation to the inmate student in the classroom.

Further justification for this study is found in the fact that society must become more vitally concerned about the failure of present prison methods to effect adequate rehabilitation of the criminal while institutionalized. The dominant per cent of criminals incarcerated in American penal institutions are recidivists. Elliott indicated that as early as 1923 more than 50 per cent of those of whom information was available had prior prison records.<sup>2</sup> Sutherland<sup>3</sup> refers to a survey which indicated that 68 per cent of the criminals had a prior record in a penal institution. He further indicated that recidivism may be explained in the inadequacy of the agencies of correction and rehabilitation. Burnett states the problem in this manner:

Crime costs the nation \$27 billion annually. While we now spend \$450 a year per child in our public schools, we also spend . . . \$3500 a year for a criminal in a State prison.

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<sup>1</sup>James W. L. Park, "The Unteachables," Journal of Correctional Education, XVIII (July, 1966), p. 4.

<sup>2</sup>Mabel Elliott, Crime in Modern Society (New York: Harper and Brothers, 1952), p. 95.

<sup>3</sup>Edwin H. Sutherland, Principles of Criminology (New York: J. B. Lippincott Company, 1939), p. 585.

The need for a wider program of education of those persons incarcerated in correctional institutions . . . . can also be measured by the fact that 50 per cent of released prisoners resort to recidivism.<sup>1</sup>

Over 80 per cent of all adult offenders are high school dropouts, while some 85 per cent of all prisoners in institutions have no skills to sell to an employer upon release from the penal institution. It is relevant to note that only 3 per cent of the inmates of the Oklahoma State Reformatory are high school graduates when they begin their sentences, and very few achieve a high school diploma while at the institution. As a result they are not able to acquire and maintain a good job, and soon return to prison with another offense. It is the intended purpose of this study to examine and evaluate one possible method as to how correctional educators may proceed to find a rational method to relate progress and recidivism.

#### Statement of Problem

The problem involved: (1) determination of the effect of classroom bibliotherapy on academic achievement in a specified area (biological science) and (2) determination of the effect of classroom bibliotherapy on the personality of inmate students.

The research was carried out to test the following two null hypotheses.

H<sub>01</sub> There is no statistically significant mean difference in personality gains of inmate students after classroom bibliotherapy has

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<sup>1</sup>Charles Burnett, "Statement of Congressman Charles Burnett of Florida on H.R. 14341," Journal of Correctional Education, XVIII (April, 1966), p. 27.

been effected.

H<sub>0</sub> There is no statistically significant mean difference in academic achievement in biological science after classroom bibliotherapy has been effected.

#### Delimitation of Problem

This study seeks to evaluate the effectiveness of group bibliotherapy under classroom conditions in the Oklahoma State Reformatory for Men at Granite, Oklahoma. It is expected that the results of such a study will be of principal value to teachers employed in this type of institution irrespective of their teaching area. It is also anticipated that value can be realized by administrators, librarians, as well as, all security officers employed in correctional institutions.

This study is limited to reformatory high school biology inmate students whose chief qualification for inclusion in the study is that they had not as yet had a formal course in biological science. The scope of this study does not consider such variables as race, sex, interest, student work load, vocational training in the institution, family socio-economic condition or academic performance prior to conviction and incarceration. No attempt was made to isolate the differential effect of bibliotherapy on inmate students of high and low intelligence and personality deviation. Thus, the study has been limited to the evaluation of the group random sample as a whole.

The study was further delimited to eight regular classes in high school biological science taken two classes at a time for a period of three hours per day either in the morning or in the afternoon. Both

morning and afternoon classes used the same textbook,<sup>1</sup> materials and laboratory equipment.

#### Definition of Terms

Criminal. An individual who has committed an offense against society punishable by law and who has been apprehended and confined to a penal institution.

Recidivism. The repetition or recurrence of delinquent or criminal conduct. Recidivism is defined in this study by the reported number of previous offenses of the inmate student.

Inmate Student. An individual enrolled in high school biological science at the Oklahoma State Reformatory, Granite, Oklahoma, in the school year, 1964-65.

Group Bibliotherapy. The utilization of mental hygiene books for reading purposes in the cure or amelioration of psychic disorder; the use of reading with discussion in a group setting. Bibliotherapy is defined in this study as being a more inclusive method which includes all possible classroom library services, such as, film strips, tapes, films, newspapers, periodicals and bulletin boards. The primary unifying resource was the text. It was supplemented by short periodical articles in both biology and psychology-sociology, as well as specific chapters in other textbooks.

Teaching Method. A means of instructional activity including all devices the teacher may seek to utilize in encouraging learning by

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<sup>1</sup>Ella Thea Smith, Exploring Biology: The Science of Living Things (New York: Harcourt, Brace and World, Inc., 1959).

the inmate student.

Lecture-Demonstration-Laboratory Method. The teacher assumes responsibility for discussing and demonstrating the designated educational material in an extended discourse. Throughout the lecture-demonstration the students clarify and expand their information through asking questions, participating in discussion and general examination of the topic. The teacher also asks questions to stimulate interest and focuses interest on the problem at hand. In the laboratory part of this method the teacher assumes responsibility for organizing equipment, assisting in the setting up of experiments when needed, and helping define objectives and procedures, and is available as a resource person in the problem-solving situation.

Academic Achievement. The degree or level of ability attained to perform school tasks. Academic achievement in this study is limited to the area of biological science as measured by the Nelson Biology Test.

Personality. The distinguishing qualities of an individual taken as a unitary being, those that distinguish the individual in social relations. Personality level in this study is defined as the scores obtained by the inmate student on the Minnesota Multiphasic Personality Inventory, abbreviated MMPI.

Intelligence. The general score obtained by the inmate student on the California Test of Mental Maturity.

## CHAPTER II

### HISTORY AND REVIEW OF THE LITERATURE

#### Juvenile Delinquency

Several different approaches have been utilized in attempts to classify the delinquent personality. Sixty-eight years ago there were no statutory limitations or provisions regarding the classification of social offenders as criminal or delinquent. Juvenile delinquents and criminals were not separated.

Historically, the first scientific attempts at personality classification of criminals began with physiognomy, the belief that character could be read by observation and measurement of the face.<sup>1</sup> Phrenology replaced physiognomy around 1821.<sup>2</sup> This system of classification was based on the exterior conformation of the skull.

Lombroso claimed that variations of personality were based on the theme of born criminal, atavism and degeneration. Lombroso created a set of criteria of certain physical and emotional characteristics

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<sup>1</sup>A. E. Fink, Causes of Crime (Phila: University of Pennsylvania Press, 1938), p. 236.

<sup>2</sup>C. Lombroso, Criminal Man (New York: G. P. Putnam's Sons, 1911), p. 23.

unique to individuals possessing traits of criminality.<sup>1,2,3</sup> Goring extended these criteria created by Lombroso to the establishment of a definite mental type. Goring reported a correlation of .66 between criminality and mental deficiency.<sup>4</sup>

During the early part of the nineteenth century, for the first time in history, the state entered the field of social work for the purpose not only of shielding children from the horrors of a rigid criminal treatment but for other purposes such as preventing children from entering criminal careers. Prior to this move the New York House of Refuge was a private institution. Boston incorporated a municipal House of Reformation following the pattern established in New York the following year. From 1860 to 1890 nineteen institutions for juvenile delinquents were established throughout America.<sup>5</sup>

The first legal move was made in 1899, with the setting up of the Juvenile Court at Cook County, Illinois. With the advent of the Twentieth Century juvenile delinquency was acquiring a legal definition within the various states. Children within the state age limits, which usually extended upward to eighteen, were no longer recognized as criminals. This was a significant step forward.<sup>6</sup>

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<sup>1</sup>Ibid., p. 25.

<sup>2</sup>David Abrahamsen, Crime and the Human Mind (New York: Columbia University Press, 1944), p. 4.

<sup>3</sup>Marshall B. Clinard, Psychology of Deviant Behavior (New York: Rinehart and Company, 1950), p. 30.

<sup>4</sup>C. Goring, The English Convict (London: Majesty's Stationary Office, 1913), pp. 390-425.

<sup>5</sup>Margaret Reeves, Training Schools for Delinquent Girls (New York: Russell Sage Foundation, 1929), p. 29.

<sup>6</sup>W. Reckless, Criminal Behavior (New York: Appleton Century Co., 1940), pp. 322-39.

Following this legal distinction between offenders, many systematic attempts were made to determine the etiology of juvenile delinquency. Using as a pattern, Healy's Individual Delinquent, intelligence test scores became the chief means by which society distinguished the delinquent from the non-delinquent. Although intelligence level was found to be a major factor, it was soon recognized that the level of intelligence did not play the major role previously assumed, because, youth with intelligence quotients identical to those of delinquents were known to have committed no similar offenses.<sup>1,2</sup> This fact made a systematic re-education program for the delinquent mandatory in that criminality was seen to be the result of environment. Group therapy was thus instigated on a widespread scale; bibliotherapy, however, played a minor part in most programs.

The next approach was to include personality factors. In the early twentieth century, Freud began to emphasize the study of personality through both overt and covert attitudes expressed by the individual.<sup>3</sup> Later in this century, writers such as Horney,<sup>4</sup> began to emphasize self attitudes as being important in psychological theory. The phenomenological approach has strongly emphasized the need system of

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<sup>1</sup>W. Healy, Mental Factors in Crime (New York: National Committee for Mental Hygiene Inc., 1936), pp. 53-77.

<sup>2</sup>Luella Cole and Irma Nelson Hall, Psychology of Adolescence (New York: Holt, Rinehart, and Winston, Inc., 1964), p. 416.

<sup>3</sup>Ives Hendricks, Facts and Theories of Psychoanalysis (New York: Macmillan Company, 1913), pp. 86-88.

<sup>4</sup>Karen Horney, Neurosis and Human Growth (New York: W. W. Norton, Company, 1937).

the criminal.<sup>1,2</sup>

Cady, Sweet, Rogers, and Raubenheimer were among the first to devise scales to secure measures of traits and attitudes indicative of personality maladjustment.<sup>3</sup> Slavson found delinquency related to low intelligence, as measured by present day intelligence tests, and children from broken homes more susceptible to delinquency. The association between size of family and delinquency was insignificant and the delinquents were on a par in physical maturity with the non-delinquent.<sup>4</sup> The genetic development of youth, that is, the configuration of the total development of the child, became another important factor. In studying recidivists in delinquent homes and young adult criminals, it was found that the ultimate confinement of offenders usually resulted from anti-social acts occurring early in the development of the child and it became the consensus of opinion that delinquency was a problem in the adjustment of the child's personality. These adjustment problems became predominant when they continued to be unsettled.<sup>5</sup>

The most rigidly controlled investigation which endeavored to

<sup>1</sup>Donald Snygg and Arthur Combs, Individual Behavior (New York: Harper and Brothers, Inc., 1949), p. 267.

<sup>2</sup>Carl Rogers, Client Centered Therapy (New York: Houghton-Mifflin Company, 1951).

<sup>3</sup>R. Canady, A Psychological Study of Delinquent and Non-Delinquent Negro Boys (New York: Columbia University Press, 1932), pp. 21-58.

<sup>4</sup>J. Slavson, The Delinquent Boy (Boston: R. G. Badger Co., 1926), p. 442.

<sup>5</sup>Reckless, op. cit., pp. 322-39.

catagorize delinquent youth was conducted by Sheldon and Eleanor Glueck over the period from 1931 to 1950.<sup>1</sup>

The Gluecks matched 500 delinquent youth with 500 non-delinquent youth in respect to age, general intelligence, ethnico-racial origin and residence in underprivileged neighborhoods. The delinquent youth were chosen from the Lyman Training School in Massachusetts. The non-delinquent youth were selected from the Boston public schools.

A staff of 10 social investigators, one psychiatrist, two physical anthropologists, six psychologists, two Rorschach analysts, two statisticians, one statistical consultant, eight secretarial assistants, and one editorial assistant were used in the investigation.

The youth were subjected to the following tests and examinations: medical examination, Wechsler-Bellevue Intelligence Test, Stanford Achievement Test, Rorschach Test, and psychiatric interviews.

On the basis of thorough clinical analysis, the Gluecks found the delinquent youth to possess emotional instability, to be excessively dynamic, energetic, and aggressive. The delinquent youth were inclined to immediate indulgences of their appetites; and less sensitive aesthetically but more desirous of acquiring material things than were the non-delinquent youth.

They also contended that delinquency is extremely difficult to cure. Ostensibly this is so because the juvenile delinquent's mode of life is to him quite satisfactory. It provides him his wants with the least amount of delay and satisfies his urges. The recidivist does not

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<sup>1</sup>S. Glueck and Eleanor Glueck, Unraveling Juvenile Delinquency (New York: Commonwealth Fund, 1950).

apparently want to be reformed; he wants only not to get caught.<sup>1</sup>

This present study is in part to check on the dependability of the conclusions of the Glueck's study, as well as, to suggest some possible remedial activities to be used with the juvenile delinquent to increase his capacity to deal rationally with his environment through the effect of better understanding himself. After the appearance of Raimy's work,<sup>2</sup> a lengthy series of research projects have been produced which emphasize the distinct possibility of understanding the individual through studying his attitudes toward self and others. Though much has been done in this regard, an insignificant proportion of the research has dealt directly with the criminal. Published research on bibliotherapy, as applied toward effecting self-concept and attitudinal changes in incarcerated offenders is likewise limited.

#### Development of the Use of Bibliotherapy

Bibliotherapy, however, does have a long and well established reputation in the treatment of mental patients; with much needed information on technique and bibliographic sources being published as a result. Several significant and critical articles on bibliotherapy have appeared in the last half century; among them being Carothers,<sup>3</sup> who was one of the first to use the term "bibliotherapy." G. S. Robinson stated that

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<sup>1</sup>S. Glueck and Eleanor Glueck, Juvenile Delinquents Grown Up (New York: Commonwealth Fund, 1940).

<sup>2</sup>V. C. Raimy, "The Self-Concept as a Factor in Counseling and Personality," (unpublished doctoral dissertation, Ohio State University, 1948).

<sup>3</sup>Samuel Carothers, "A Library Clinic," Atlantic Monthly, CXVIII (August, 1916), pp. 291-301.

books are "tools to be used with intelligent expectation."<sup>1</sup> Both of these authors emphasized that the bibliotherapist must improve his readers, and protect his books. Many of their original ideas on bibliotherapy are still extant. Bruce-Porter,<sup>2</sup> Jackson,<sup>3</sup> and Ireland,<sup>4</sup> were among the first to emphasize the need for a "Science of Bibliotherapy," which would include adequate training for the bibliotherapist. Tews,<sup>5</sup> was quite emphatic in insisting that the major needs in bibliotherapy were suitable training institutions and the planning and completing of more research studies. In a significant article, the Fiermans summarized much of the work that has been done with bibliotherapy. They especially noted that articles on bibliotherapy vary greatly in content and principles with very few structured procedures being listed.<sup>6</sup> Recently, Morrow and Kinney, reported the results of an important break-through research project regarding the efficacy of popular psychological books in a mental hospital. In their report the authors outlined their methodology to make it possible for other researchers who attempt the

<sup>1</sup>G. S. Robinson, "Institution Libraries of Iowa," Modern Hospital, VI (February, 1916), pp. 131-33.

<sup>2</sup>Bruce Bruce-Porter, "The Need for Libraries in Hospitals as Part of the Scheme of Curative Medicine," Journal of State Medicine, XXXVIII (December, 1930), pp. 710-15.

<sup>3</sup>Josephine H. Jackson, "The Therapeutic Value of Books," Modern Hospital, XXV (July, 1925), pp. 50-51.

<sup>4</sup>G. O. Ireland, "Bibliotherapy as an Aid in Treating Mental Cases," Modern Hospital, XXXIV (June, 1930), pp. 87-91.

<sup>5</sup>Ruth M. Tews, "The Patients Library," Applied Medical Library Practices, ed. T. E. Keys (Springfield, Ill.," Charles Thomas, 1958), pp. 97-134.

<sup>6</sup>L. B. Fierman and Ella Y. Fierman, "Bibliotherapy in Psychiatry," Occupational Therapy Principles and Practices, ed. W. R. Sutton (Springfield, Ill.: Charles C. Thomas, 1937), pp. 163-76.

same type of study to ascertain whether or not results are similar. This practice was a significant step toward the use of standard research techniques in conducting research in bibliotherapy.<sup>1</sup> This present research study has utilized some of the suggestions given by these authors.

Bickel,<sup>2</sup> has given concrete suggestions for making bibliotherapy effective for patients in a psychiatric hospital. His suggestions include reading aloud to groups of patients in closed wards, discussion groups, the employment of patients in the library, and lectures. This article is an excellent summary of the many and varied activities that can be part of a hospital bibliotherapy program.

Powell and others,<sup>3</sup> conducted a research project in which patients were followed simultaneously in reading and psychotherapy, in an experiment conducted with patients of the psychiatric clinic of John Hopkins University. Three collaborators--one from education, one from psychiatric social work, and one from psychiatry and group therapy--followed nine patients concurrently in group reading and group therapy. The investigators found that both types of groups had value but for different types of patients and that neither group by itself will produce complete therapeutic balance for all patients in a group.

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<sup>1</sup>R. S. Morrow and Margaret Kinney, "The Attitude of Patients Regarding the Efficacy of Reading Popular Psychiatric and Psychological Articles and Books," Mental Hygiene, XLIII (January, 1959), pp. 87-92.

<sup>2</sup>R. Brooks Bickel, and others, "The Library as a Therapeutic Experience," Bulletin of the Medical Library Association, XLVII (July, 1959), pp. 305-14.

<sup>3</sup>J. W. Powell, and others, "Group Reading and Group Therapy," Psychiatry, XV (February, 1952), pp. 33-51.

In a report of two cases Schneck,<sup>1</sup> observed that bibliotherapy had definitely been advantageous in treating hospital patients. He mentioned the educational and recreational merits of bibliotherapy and its aid in eliciting conflict material and he felt that treatment time was abbreviated as a result of its use. In a review of the literature the same author found a marked deficiency in the number of organized procedures or programs of bibliotherapy, he felt that much of what had been done seemed to be in many instances rather unorganized and haphazard.<sup>2</sup>

Pomeroy<sup>3</sup> found, as a result of a study she made, that it was generally agreed that well chosen reading helps all patients who engage in it to be more contented. Johnson,<sup>4</sup> reported on the therapeutic value which various library programs had for mentally ill patients. She concluded that usually after four months of effort, the groups of patients show definite progress in response and interest.

From this review of the literature it can be concluded that there seems to be a trend toward studies of a more scientific nature, but there are fewer articles being published. There is an emphasis upon analysis, techniques, and devices that attempt to give verifiable knowledge to the

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<sup>1</sup>J. M. Schneck, "Bibliotherapy for Neuropsychiatric Cases: Report of Two Cases," Bulletin of the Menninger Clinic, X (January 10, 1946), pp. 18-25.

<sup>2</sup>J. M. Schneck, "Bibliotherapy and Hospital Library Activities for Neuropsychiatric Patients: A Review of the Literature with Comments on Trends," Psychiatry, VIII (May, 1955), pp. 207-28.

<sup>3</sup>Elizabeth Pomeroy, "Bibliotherapy--a Study and Results of Hospital Library Services," Medical Bulletin of the Veterans Administration, XIII (April, 1937), pp. 360-64.

<sup>4</sup>M. B. Johnson, "Group Therapy in a Library," Medical Bulletin of the Veterans Administration, XX (October, 1943), pp. 207-209.

practice of bibliotherapy. However, as yet no method has been devised that has proven bibliotherapy to be a science.

### Bibliotherapy in Correctional Institutions

In regard to bibliotherapy in correctional institutions, Floch,<sup>1</sup> described some of his work in the Detroit House of Correction. He particularly stressed the need for better procedures and suitable education for the bibliotherapist but did not list any suggested methodological procedures to be used in bibliotherapy. Moore<sup>2</sup> also gives some consideration to bibliotherapy with criminals and juvenile delinquents in his book.

Relative to evaluation of correctional institution rehabilitation practices, Lauber undertook an experimental program in the Namequa Lodge Home for Delinquent Girls.<sup>3</sup> Her findings were based upon MMPI profiles of thirty-five girls in residence at this institution.

After reception at the institution, each inmate was enrolled in school in whatever grade she had been attending. The teaching method used was on a remedial plan with considerable individual attention and group therapy, including the use of books, given each inmate. The entire staff participated in the activities, informally sharing the living and dining room areas, and accompanying them on numerous social

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<sup>1</sup>Maurice Floch, "Bibliotherapy and the Library," The Bookmark, XVIII (December, 1958), pp. 57-59.

<sup>2</sup>Thomas V. Moore, The Nature and Treatment of Mental Disorders (New York: Grune and Stratton, 1951).

<sup>3</sup>Margaret Lauber, "MMPI Findings in the Rehabilitation of Delinquent Girls," (unpublished Master's Thesis, State University of Iowa, 1951).

events. The entire method of self-help was designed to offer an opportunity for the inmate students to gain responsibility and self understanding.

For purposes of study, Lauber divided the thirty-five inmates into two groups. Group I was composed of those who made an adequate adjustment to the rehabilitation program. Group II consisted of a more diversified group of those, who for one reason or another, failed to make adequate adjustment to the program.

A battery of tests were administered to the inmates while in residence at the institution, including educational achievement, intelligence, interest, and the MMPI. More than half of the groups were retested with the MMPI. However, since her cases were often specially selected to check on behavioral changes, and since it was not a rigidly controlled procedure, little use could be made of the retest information.

In analyzing the scores on the MMPI she found that the poor adjustment group had higher mean scores on each of the clinical scales, and statistically reliable differences were found on the Sc, Hy, and Pt scales. She found that the most striking difference in the two groups was the lack of a Sc code in the success group while nearly half of the codes in the failure group began with Sc.

While all the codes of the failure group were primed, one third of the codes from the success group did not have any scores above 70. She also noted that the retests for both groups indicated a downward shift toward the lower T score values, the success group showing this to a greater degree. However, the author stated that her material could not be offered as a reliable basis for predicting severe delinquency or

even for anticipating the outcome of therapeutic efforts since the study was not rigidly designed.

Haskins and Weeks directed thirty-three inmates in participating in fifteen bibliotherapeutic role training sessions, each of approximately one hour and 45 minutes.<sup>1</sup> A comparable group of thirty-three inmates served as a control group. Both groups were given five tests before the role training sessions in occupational, family and community roles began; and again after all fifteen sessions were completed. Their tests were designed to measure role enactment, empathy, and conformity to social values, judgment in social situations, and ability in dealing with people.

When compared to the control group, the improvement of the experimental group, who had participated in the experimental sessions, was significant on the tests measuring role enactment and conformity to social values. Though not statistically significant, the test scores measuring empathy, judgment in social situations, and ability in dealing with people also moved in a favorable direction. Three months after the members of the control group and experimental group had been released on parole, a check showed that those inmates who had improved on the role test, as a result of the sessions, were much more likely, than those in the control group, to be non-violators of parole. They concluded that correctional institutions could, with profit, include a role training program in their rehabilitation program.

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<sup>1</sup>M. R. Haskins and H. Ashley Weeks, "Role Training as Preparation for Release from a Correctional Institution," Journal of Criminal Law, Criminology and Police Science, I (January, 1960), pp. 441-47.

Barton has taught inmates at the Washington State Training School for Delinquent Boys in a special course in bibliotherapy designed to modify the inmate's value system through group discussions of personality in a literary context. This bibliotherapy project was a part of the academic school curriculum and was financed by funds made available through Title I of the Elementary and Secondary Education Act.<sup>1</sup>

A small, carefully selected group of inmate students was commenced in the Spring quarter of 1966. Most of these boys had above average I.Q. scores and possessed varying social problems. Their reading background varied from avid readers to those who had never read a book voluntarily. Students were issued paperbound copies of three novels: Mark Twain's Huckleberry Finn, J. D. Salinger's Catcher in the Rye, and John Knowles' A Separate Peace. It was found by the investigator that the segment of the novel to be discussed had to be read aloud during the class period, by the teacher, to obtain optimum results.

The investigator suggested that teachers may ask leading questions, direct discussion to important points, guide the discussion to students needing the opportunity to take part, or help a student interpret what he is thinking. She also insisted that the teacher do as little as possible in controlling the sessions by giving the students her own ideas. It was felt by the investigator that the student had to feel as though he was giving meaningful reaction, not simply listening to the teacher's ideas.

The degree of significance of change in personality functioning

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<sup>1</sup>Virginia L. Barton, "Bibliotherapy at Green Hill School," Journal of Correctional Education, XIX (October, 1967), pp. 23-25.

was measured by the Jr-Sr High School Personality Questionnaire on a pre- and post- examination basis. Results of these examinations have proven inconclusive at this time. A complicating factor was the continuous turnover among student inmates at the institution. However, the investigator felt that one positive aspect of this type of program was that the reform school has the opportunity to reach a greater number of students than would be possible in a static condition.

She commented that the greatest requirement of teachers taking part in such a program is stamina in that bibliotherapy classes require a great deal of the teacher. The second most important characteristic was listed as teacher enthusiasm in the discussion period.

One unfortunate weakness of this study was that the investigator listed very few if any specific procedures to be followed in replicating her experiment.

## CHAPTER III

### METHOD OF RESEARCH AND TREATMENT OF DATA

#### Method

The experimental method of research was used in the present study because this method is best suited to the nature of the problem and the data needed.<sup>1</sup>

#### Nature and Sources of Data

There are three sources of data involved in this study, which are the scores obtained from the following tests:

1. California Test of Mental Maturity, Form S.<sup>2</sup>
2. Nelson Biology Test (Forms A and B) pretest and post-examination.<sup>3</sup>
3. Minnesota Multiphasic Personality Inventory, booklet form, pretest and post-examination.<sup>4</sup>

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<sup>1</sup>Carter V. Good and Douglass E. Scates, Methods of Research (New York: Appleton-Century-Crofts, Inc., 1954), pp. 689-725.

<sup>2</sup>California Test Bureau, California Test of Mental Maturity (Los Angeles: California Test Bureau, 1957).

<sup>3</sup>Clarence H. Nelson, Nelson Biology Test (New York: World Book Company, 1951).

<sup>4</sup>Starke R. Hathaway and J. C. McKinley, Minnesota Multiphasic Personality Inventory (New York: The Psychological Corporation, 1951).

### Research Procedure

The subjects of this study were prison inmates of the Oklahoma State Reformatory at Granite, Oklahoma, who were enrolled in the regular ten-week semester program in biological science. The investigator taught the eight classes of biology which had been assigned to the four experimental and four control groups, two at a time.

In an experimental situation of this nature where the investigator is permitted to administer different methods of therapy or teaching to different reformatory classes, but must usually use the classes as they are already organized as a result of the inmate's work schedule, it was found to be impractical to attempt control of all concomitant variables by direct selection and matching. A list of possible morning and afternoon inmates was drawn up at the beginning of each semester and inmates were selected to participate in the study on the basis of maintaining a satisfactory work schedule arrangement. It was found that too stringent a selection of the subjects tended to reduce the effectiveness of the findings since the normal reformatory classroom population may be altered.

Therefore, since experimental control of all the concomitant variables proved to be impractical, the investigator relied upon statistical comparison of the groups to test their initial equality. Statistical procedures utilized in this study include the Chi Square Test for independence of data which was used to combine the data of the personality inventory from the eight separate groups. Likewise, the "t" test of dependent measures was used to test the difference between mean improvement in regard to pretest and post-test biology information in order that

the eight separate groups in this study could be combined into two groups experimental and control. The "t" test was also utilized to test the mean improvement within the combined groups. It was likewise used to test the initial equality of the groups on the pretest data.<sup>1</sup>

At the beginning of the experimental period the subjects were given the Minnesota Multiphasic Personality Inventory, booklet form, and Nelson Biology Test to determine the level of personality functioning and amount of biological knowledge present before bibliotherapy and training under a controlled teaching method was effected. They were also given the California Test of Mental Maturity. The Minnesota Multiphasic Personality Inventory, or MMPI and an alternate form of the Nelson Biology Test was administered at the end of the experimental period to determine the amount of achievement of knowledge in biology and amount of change in personality functioning which had accrued during the experimental period.

The Nelson Biology Test has seventy-five multiple choice items and requires approximately forty-five minutes to administer. This test was used because it has sufficient reliability and validity for this type of study and was constructed to measure the objectives which biology teachers seek to achieve.

Two forms of the Nelson Biology Test were used to minimize practice effect. The inmate students were encouraged to do the best they could and to do their own work. The teacher was always present in the room during the testing and gave full attention to the testing procedure and those being tested.

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<sup>1</sup>Merle W. Tate, Statistics in Education (New York: Macmillan Company, 1955), p. 434.

The subjects who were not familiar with the pretesting procedure were merely told that the tests would assist the teacher learn how much biology they already knew, and with what areas they were unfamiliar. Thus the emphasis on material could be arranged to make the course more interesting to them. No subject took the same form of the test twice; i.e., he took Form A as a pretest and took Form B as a post-examination.

The MMPI is an inventory designed to provide, in a single test, scores on all the clinically important aspects of personality. Its ten scales are derived from actual psychiatric practice. The inventory is comprised of 550 statements covering a wide range of subject matter, from the physical condition of the individual to his moral and social development. The usual time required to administer this inventory is from ninety minutes to as short as thirty minutes. No supervision is needed beyond that required to let the subject understand the nature of the task and insure cooperation. In administering the inventory the subject is asked to respond to all statements as "True," "False," or "Cannot Say." His responses are then tabulated and yield scores on four validity scales and ten clinical scales. The scales of the MMPI utilized in this study were: Hypochondriases HS, Depression D, Hysteria Hy, Psychopathic Deviate Pd, Masculine-Femininity Mf, Paranoia Pa, Psychasthenia Pt, Schizophrenia Sc, and Hypomania Ma. Such authors as Hathaway,<sup>1</sup> and Glenn,<sup>2</sup> present an extensive analysis of the MMPI, thus, none will be

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<sup>1</sup>Starke R. Hathaway and P. E. Meehl, An Atlas for the Clinical Use of the MMPI (Minneapolis: University of Minnesota Press, 1951).

<sup>2</sup>R. A. Glenn, "A Study of Personality Patterns of Male Defective Delinquents as Indicated by the MMPI," (unpublished M.S. Thesis, Pennsylvania State College, 1949).

attempted by the present author.

The MMPI must be interpreted on the basis of patterns of clinical scores and not on the individual scores in isolation. Thus, the investigator was particularly concerned with the elevated scale patterns of Pd, Pa, Sc, and Ma. The scales have been found to constitute important aspects of criminality.<sup>1</sup> In evaluating the effectiveness of bibliotherapy on the inmate student's personality, these four scales were singled out for special consideration and analysis.

The experimental period was ten weeks in length. The experimenter taught both experimental and control group classes. The class period was three hours in length and met either in the morning or in the afternoon. The first two groups (n=15 for the control; n=11 for the experimental) were taught by the Lecture-Demonstration-Laboratory method three hours per day for 48 days. Both groups used the same textbook, materials, and equipment. The experimental group procedure was altered, in that, an average of one hour per day was utilized in the bibliotherapy sessions. The second two groups (n=13 for the control; n=9 for the experimental) and, the third two groups (n=14 for the control; n=11 for the experimental) plus the fourth two groups (n=17 for the control; n=14 for the experimental) were also taught by the Lecture-Demonstration-Laboratory method and followed the same controlled procedure as in the first two groups. The total number of subjects in the eight groups was 104.

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<sup>1</sup>Starke R. Hathaway and Elio Monachesi, Analyzing and Predicting Juvenile Delinquency with the MMPI (Minneapolis: University of Minnesota Press, 1953), p. 23.

Bibliotherapy Procedure

As was suggested by Bickel,<sup>1</sup> and Morrow,<sup>2</sup> the experimenter viewed bibliotherapy as being a more inclusive method which included not only general reading materials such as fiction and biography, but predominantly psychiatric and psychological articles and books which were supplementary to the primary bibliotherapy source--the textbook. This more inclusive method also utilized other library resources such as films, filmstrips, tapes and bulletin board items.

The bibliotherapy procedure used with the experimental groups averaged one hour per day and included both reading aloud and discussion as suggested by Powell,<sup>3</sup> and Barton.<sup>4</sup> However, there was no rigid time limit set and on several occasions when inmate interest and participation was high the entire three hour class period was utilized for this purpose.

A conscientious attempt was made to insure that the bibliotherapy procedures were not merely artificially contrived school tasks by amalgamating them into the actual classroom work. It was quickly ascertained that the inmate students were extremely reticent to participate in therapy sessions if they sensed coercion or subtly contrived group therapy of any kind. In most penal institutions the inmate population is anti-group oriented and is actually warned by the institution

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<sup>1</sup>Bickel, op. cit., pp. 305-14.

<sup>2</sup>Morrow, op. cit., pp. 87-92.

<sup>3</sup>Powell, op. cit., pp. 33-51.

<sup>4</sup>Barton, op. cit., pp. 22-25.

administration not to become too acquainted with their fellow prisoners; and the Oklahoma State Reformatory is no exception. Thus, in most correctional institutions the prison psychologist has difficulty in obtaining and maintaining an adequate number of subjects in group therapy.<sup>1</sup> With this fact in mind, the present study contends that the institution classroom is the most effective vehicle remaining to effect therapy on a large scale. This would be particularly true if the institution teacher possessed more adequate training in counseling and psychotherapy, as well as, increased interest in this phase of his job. Also, this fact presents a challenge to the institution administration to inculcate more therapy oriented procedures into the curriculum as is now being tried on a limited basis as was noted in the Barton study previously cited. Of equal significance is the contention that the traditional subject matter textbooks typically used in the reform school curriculum should be rewritten to provide for this need. This becomes more evident as the experimental procedure reveals below.

The semester academic work and bibliotherapy utilized the following two unit pattern. During the semester group discussion centered around the textbook primarily, plus supplementary biological and psychological readings. It was felt that the course content in biology would readily adapt itself to discussion of the dynamics of human behavior and the inmates personal problems through such topics as: ecology, the study of animals in relationship to their environment, or the study of

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<sup>1</sup>John L. Arnette, "The Effect of Short Term Group Counseling on Anxiety and Hostility of Inmates," Journal of Correctional Education, XIX (July, 1967), pp. 18-22.

neurology and the function of the brain in learning, emotion, and motivation. The first week of the semester was spent in studying botany while orientation and pretesting were being completed. In weeks two through five the inmate student was introduced to the similarities in all forms of life. The object of this unit was to allow discovery that "life is not a thing attached to this or that substance or chemical action, but is organized activity, varying in character with complexity of structure and ranging without discoverable discontinuity from the neatly crystalline simplicity of the filterable virus to the elaborate organization of the mammalian body."<sup>1,2</sup> Weeks six through eight were used to introduce the inmate student to the fact that there are dissimilarities in the biological, as well as, the mentational and behavioral sphere. Such topics as brain trauma or maturational factors were found readily usable by the experimenter as a natural progression from discussion of the causative factors of physical and behavioral dissimilarity among infrahuman species of the lower phylogenetic scale to the human being. The last two weeks of the semester were utilized in reading a play, summarizing, and post-testing.

It was hoped that after the second or third week of the semester due to this method of instruction, the inmate student would evidence a desire to know more about himself and his world. At this point a list of fiction and biography books was given to those who expressed an

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<sup>1</sup>Charles S. Sherinton, Man on His Nature (New York: Macmillan and Company, 1941), p. 312.

<sup>2</sup>Karl S. Lashley, "Coalescence of Neurology and Psychology," Proceeding of the American Philosophical Society, LXXXIV (Summer, 1941), pp. 461-70.

interest for them. This list was compiled from various published lists of recommended books useful as bibliotherapeutic in nature. The one major source for this list was the Hospital and Institution Division of the American Library Association.<sup>1</sup> A list of some of these books is given in the Appendix. In some cases merely one or two chapters were expected to be read--not the entire book. Some of the suggested books could be obtained from the prison library and the inmate students were encouraged to use the library as much as possible. The remaining books were the personal property of the experimenter and were made readily available to the inmates.

At each class period the experimenter tried to take time to mention or discuss the characterological manifestation of a character or characters in one or more of the books being read and relate it to the content of the course and the needs of the student. However, it was realized by the experimenter that this particular facet of the bibliotherapy procedure did not fit the overall method and was used sparingly and was eventually dropped. It was found that reading fiction or biography took the inmate student away from his academic studies excessively and thus was defeating one aspect of the study. Also, it was time consuming from the teacher's point of view in that he had to consistently coercise too many inmates to read, and as in the Barton<sup>2</sup> study to obtain optimal results the passages had to be read aloud in class. It was felt that this might be the case since the typical inmate at the Oklahoma

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<sup>1</sup>American Library Association, Association of Institution and Hospital Division, Book Guide, Vol. I, 1958-59.

<sup>2</sup>Barton, op. cit., p. 24.

State Reformatory is a nonreader. This tended to destroy classroom rapport and defeat the intended purpose of the experimental procedure. As previously indicated the inmates were extremely reticent to participate in normal classroom activities if they suspected that the teacher was using them or was not on the "up and up" with them. Thus, this aspect of classroom activity was eventually abandoned completely though the books were yet made available to those whose out of class schedule permitted them time to read despite regimented reformatory routine.

As a result of these findings it was felt that the textbook would have to be the primary unifying resource material for the two teaching units. It was supplemented by short periodical articles in both biology and psychology-sociology, as well as, specific chapters in other textbooks. A list of these articles and books is given in the Appendix. In effect the bibliotherapy inculcated in the daily classroom activities was an outgrowth of the normal routine and was thus justifiable to the inmate students who were predominantly naive concerning the usual biology syllabus content.

Thus, at around the fourth week of the semester instead of giving the inmates a list of books as was previously thought would need to be done a committee was elected, with the experimenter as an ex-officio member, to direct the reading and discussion, and to suggest possible films on psycho-social problems, particularly criminality. The films used were obtained through the reformatory library on loan from the Oklahoma State Department of Health. Some of the films used in this study are listed in the Appendix. Many inmates brought clippings on juvenile delinquency and criminality from newspapers and magazines and

placed them on the classroom bulletin board. The class was encouraged to discuss these news items as current event affairs pertinent to them.

The experimenter's job became the usual biology teacher's task of getting a discussion started and trying to keep it on the unit topic as much as possible. The aim was to promote examination by the class of what the author said, and the significance of his facts and ideas to the personal problems of the inmate. There is usually no material to cover in each session and no examination of the material emphasized in most research on bibliotherapy in hospitals as was previously indicated. However, due to the fact that the therapy was an integral part of the classwork in this study the syllabus required that both be included. The experimenter tried to familiarize himself with the background of each inmate and was able to orientate the discussion toward the needs and interests of a particular student or students as suggested by Barton. The bibliotherapy sessions were thus hopefully, unstructured as far as the inmate's awareness of it was concerned. The only requirements set by the class and teacher was that the student be prepared to answer any question from the class concerning the particular material being covered by the class at that time. Also, the inmate was to be free to say whatever he wanted to say in whatever manner he desired to say it. These procedures eventuated in spending at least one hour per day in discussion of the various books, articles, current events, and films in which the inmates were interested.

As was indicated in the Haskins and Weeks study,<sup>1</sup> role playing

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<sup>1</sup>Haskins and Weeks, op. cit., pp. 441-47.

was proved to be of significant value in the correctional process, thus, it was suggested by the experimenter that the entire class read and discuss one short play together in a modified type of role playing. A play which the experimenter felt would adequately meet the needs of the inmate students and proved to be popular with them was "Glass Menagerie," by Tennessee Williams. A succinct description of this play, and how it was utilized in bibliotherapy is given in the Appendix.

Throughout the experimental semester period the experimenter sought to make the procedures as standardized as possible so as to heed Alston's admonition that, "Bibliotherapy is always likely to be adjunctive in nature to a broader program of therapy, and being adjunctive it may not be susceptible to standardization and precise evaluation. To some it is doubtful that a highly standardized precise form of generally applicable bibliotherapy procedure can ever be developed."<sup>1</sup> This present study is an attempt to implement this truth and make bibliotherapy more of an exact science. To this end a representative lesson plan used by the experimenter, which includes both academic material and bibliotherapy, is given in the Appendix.

It can be seen from this lesson plan that an attempt was made to make the therapy an integral part of the classwork. The theoretical framework for the therapy is like that of the Ellis<sup>2</sup> or Phillips<sup>3</sup>

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<sup>1</sup>Edwin F. Alston, "Bibliotherapy and Psychotherapy," Library Trends, XI (October, 1962), p. 176.

<sup>2</sup>A. Ellis, "Rational Psychotherapy," Journal of Genetic Psychology, LIX (January, 1958), pp. 35-49.

<sup>3</sup>E. L. Phillips, Psychotherapy, a Modern Theory and Practice (Englewood Cliffs, N.J.: Prentice-Hall, 1956).

system in that the experimenter sought to find the dominant, nocuous "self talk" which was sustaining the self defeating behavior of the inmates. The intention was to use a method such as this which could ostensibly be managed by the average reformatory teacher if he was sincere and willing to spend time learning the method. It was felt justified in some cases to use the recommendations of Mowrer<sup>1</sup> in both individual and group discussions. In using Mowrer's Integrity Therapy the investigator sought to help the students recognize and accept responsibility by allowing open confession of past misdeeds and encouragement of present and future good deeds. It was found not too difficult to assist the student to see that he had 'paid for his sins' by serving his prison term and could thus assume a more rational, guilt free responsibility for his behavior. Special care had to be taken in this method to insure that the discussion did not degenerate to mere sermonizing.

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<sup>1</sup>O. H. Mowrer, The New Group Therapy (Princeton, N.J.: Van Nostrand, 1964).

CHAPTER IV

STATISTICAL DATA

Initial Status of Subjects

The subjects in this study are compared on age, education, intelligence, and number of previous convictions in Table 1.

TABLE 1  
BACKGROUND INFORMATION ON SUBJECTS

	Experimental Group (n=48)		Control Group (n=56)		Total (N=104)	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Age (in years)	19.00	1.80	18.28	1.68	18.63	1.75
Education (by grades)	10.07	.94	8.94	2.66	9.46	1.82
Intelligence	97.54	7.65	96.09	7.85	96.75	7.77
Number of Previous Convictions	5.17	2.86	3.72	2.05	4.51	2.42

Table 1 summarizes the pertinent background information on the subjects in this study. These variables reveal the type of average inmate which will be found at the Oklahoma State Reformatory in general. The subjects were between the ages of 15 and 24 years. The mean age of the experimental group at the time of this study was 19 years, with a

standard deviation of 1.80. The mean age of the control group was 18.28 years, with a standard deviation of 1.68. The degree of education possessed by the 104 subjects ranged from 8 to 11 years. The mean of the educational level of the experimental group at the time of this study was 10.07 years, with a standard deviation of .94. The mean of the educational level of the control group at the time of this study was 8.94 years, with a standard deviation of 2.66. The number of previous convictions for the entire sample ranged from 0 to 22. The mean number of previous convictions for the experimental group at the time of this study was 5.17, with a standard deviation of 2.86. The mean number of previous convictions for the control group at the time of this study was 3.72, with a standard deviation of 2.05. It is relevant to note here that the major types of convictions in the inmate sample as a whole were for second degree burglary, 83 per cent; grand larceny, 11 per cent; stolen cars, 3 per cent; murder, 2 per cent; and rape, 1 per cent.

Intelligence test scores for each subject as measured by the California Test of Mental Maturity are found in the Appendix. The test scores appear in the order as obtained from the inmate's permanent file folder on record in the Oklahoma State Reformatory Classification and Record's Office. The mean CTMM score for the 104 subjects in the entire sample was 96.75, with a standard deviation of 7.77. The mean CTMM score for the experimental group was 97.54, with a standard deviation of 7.65. The mean CTMM score for the control group was 96.09, with a standard deviation of 7.85.

Biology achievement scores as measured by the Nelson Biology Test

for the 104 subjects in the experiment are reported in the Appendix. Two forms of this test, A and B were used and the scores are reported as standardized scores rather than in terms of raw scores. Form A of this test was used to obtain pretest data on the subjects. The scores ranged from 61 to 129. The mean achievement score for the experimental group was 80.67, with a standard deviation of 12.53. The mean achievement score for the control group was 82.86, with a standard deviation of 14.46.

#### Significance of Pretest Data

Figures 1 and 2 contain frequency polygons showing the distributions of the California Test of Mental Maturity scores, and Nelson Biology Test pretest scores. The distributions are slightly skewed, but according to Edwards, "The consensus . . . is that no serious error is introduced by non-normality in the significance levels of the F-test or the two-tailed t test."<sup>1</sup>

The critical ratio was used to test the difference between group means in the study. The formula from Tate is as follows:<sup>2</sup>

$$CR = \frac{\text{difference between sample means}}{\text{standard error of the difference between means}}$$

where CR is the critical ratio.

The critical ratio of the difference of the means was applied to the pretest data to determine if the differences in the means between groups was great enough to question the assumption that all the cases in

<sup>1</sup>Allen L. Edwards, Experimental Design in Psychological Research (New York: Rinehart and Company, 1950), p. 166.

<sup>2</sup>Merle W. Tate, Statistics in Education (New York: The Macmillan Company, 1955), p. 434.

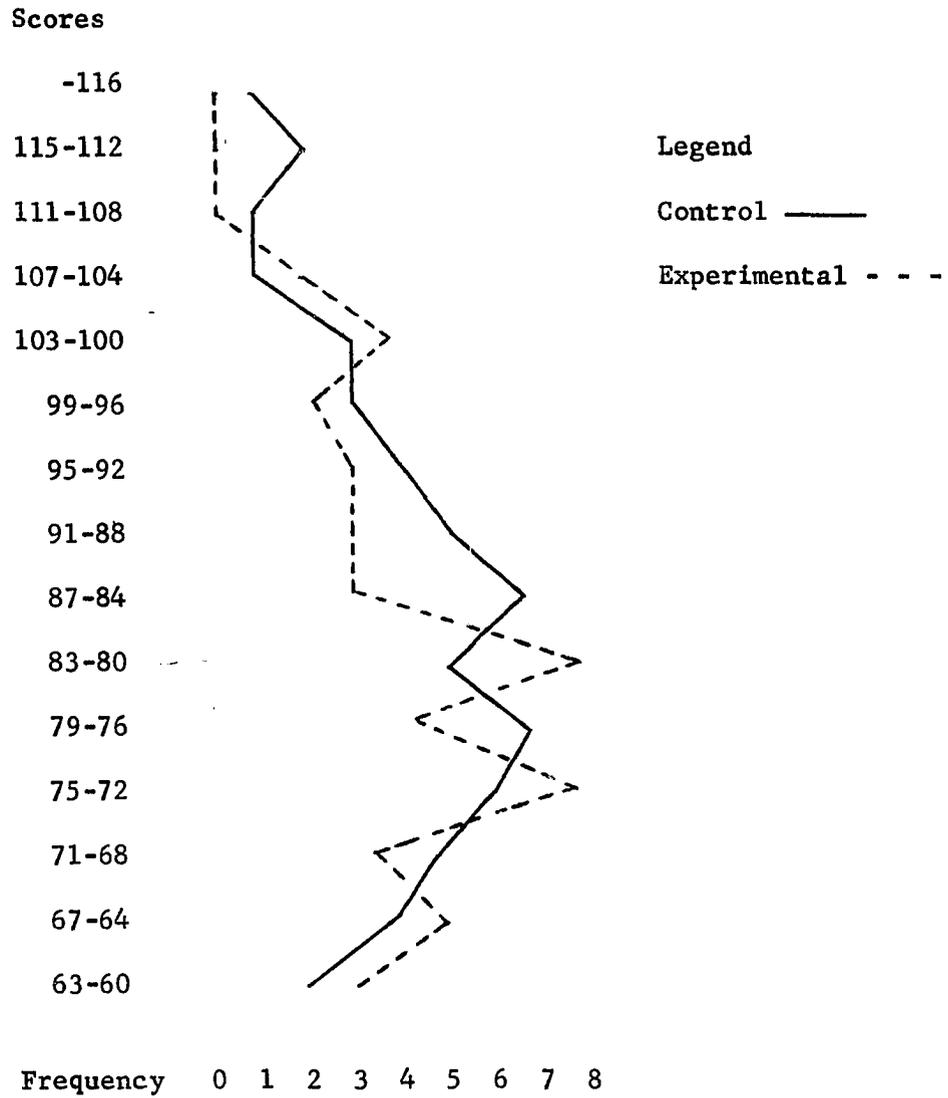


Fig. 1. Superimposed frequency polygons showing distribution of Nelson Biology Test--pretest standard scores for the experimental and control groups.

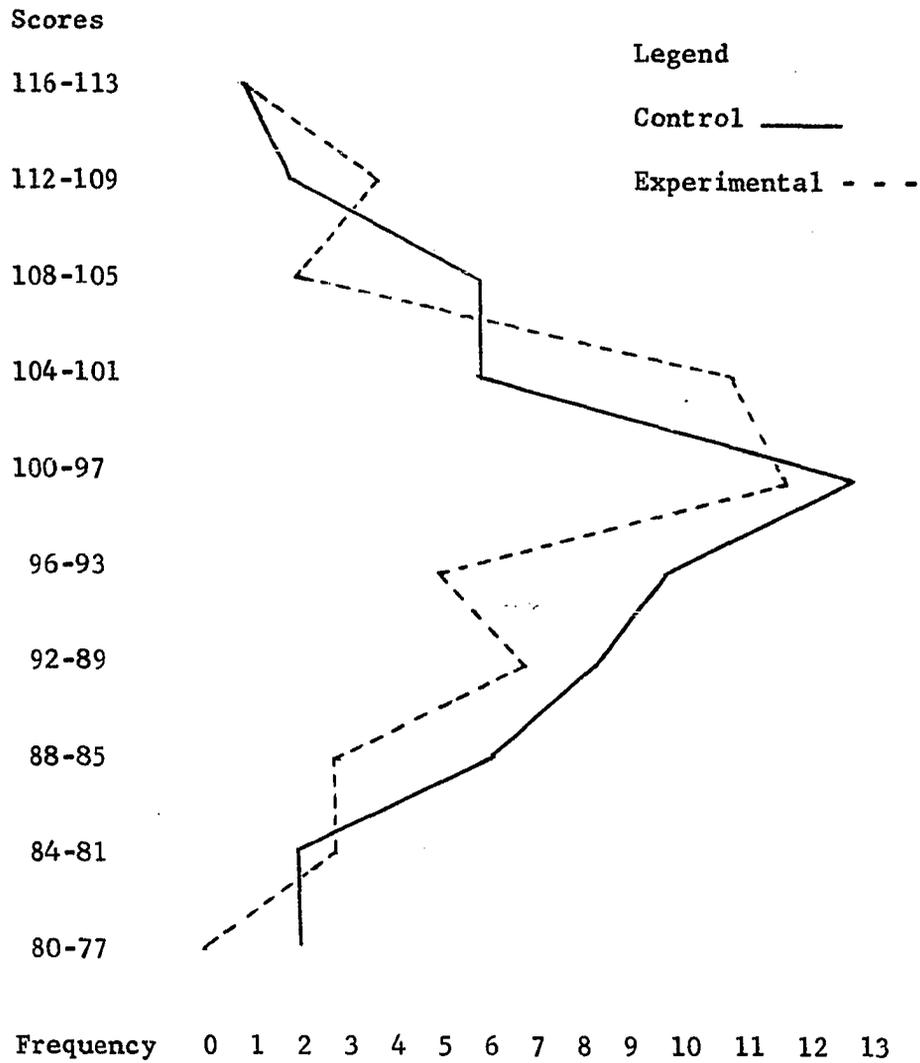


Fig. 2. Superimposed frequency polygons showing distribution of California Test of Mental Maturity scores for the experimental and control groups.

each group were randomly selected from the same or similar populations.

The critical ratio values resulting from this test of the significance of the differences between the means of the experimental and the control groups in regard to the pretest data are reported in Table 2. This table also contains the means and standard deviations of the pretest data for the groups, the differences in the means, and standard error of the difference.

TABLE 2  
COMPARISON OF EXPERIMENTAL AND CONTROL  
GROUPS ON PRETEST DATA

	Experimental Group Mean	S.D. (n=48)	Control Group Mean	S.D. (n=56)	Diff. in Means	S.E. of Diff.	C.R.
I.Q.	97.54	7.65	96.09	7.85	1.45	1.52	.954
B.T.	80.67	12.53	82.86	14.46	2.19	2.78	.789

No significant difference was found between the means for the experimental and control groups on intelligence, and biological knowledge. This indicates that the means for these groups as measured by the California Test of Mental Maturity and the Nelson Biology Test, respectively, are not significantly different.

The test for dependent measures was utilized to ascertain if there was a differential morning or afternoon biology achievement effect present in the experimental situation. It also served as a measure for combining the eight separate groups in the study into two groups; experimental and control.

TABLE 3

COMPARISON OF MEAN GAINS IN BIOLOGICAL KNOWLEDGE FOR THE  
PURPOSE OF COMBINING DATA OF THE EIGHT GROUPS

n	Mean Improvement	S.D.	n	Mean Improvement	S.D.	Diff. in Means	S.E. of Diff.	C.R.
11	E(1) 17.78	11.45	9	E(2) 14.12	7.81	3.66	3.92	.93
11	E(1) 17.78	11.45	11	E(3) 12.00	7.72	5.78	4.51	1.28
11	E(1) 17.78	11.45	17	E(4) 15.09	10.27	2.69	6.51	.41
9	E(2) 14.12	7.81	11	E(3) 12.00	7.72	2.12	3.14	.68
9	E(2) 14.12	7.81	17	E(4) 15.09	10.27	.97	4.51	.21
11	E(3) 12.00	7.72	17	E(4) 15.09	10.27	3.09	5.47	.56
15	C(1) 6.5	8.71	13	C(2) 6.79	8.87	.29	4.47	.65
15	C(1) 6.5	8.71	14	C(3) 4.92	6.29	1.58	5.09	.31
15	C(1) 6.5	8.71	14	C(4) 2.00	7.90	4.50	4.35	1.03
13	C(2) 6.79	8.87	14	C(3) 4.92	6.29	1.87	4.25	.44
13	C(2) 6.79	8.87	14	C(4) 2.00	7.90	4.79	3.32	1.44
14	C(3) 4.92	6.29	14	C(4) 2.00	7.90	2.92	4.46	.65

The mean gains on the Nelson Biology Test and the critical ratio of the difference between the mean gains for the four control groups and four experimental groups on this test are reported in Table 3. None of the critical ratio values obtained were significant at the .05 level.

The Chi Square Test for independence of data was also utilized to ascertain if there was a differential morning or afternoon attitudinal effect present in the experimental situation. It also served as a measure for combining the eight groups in the study into two groups; experimental and control. None of the critical ratio values obtained was significant enough to question the assumption and all the cases in each group were randomly selected from the same or similar populations, and that the differential morning or afternoon attitudinal effect was negligible.

#### The Gain in Biological Knowledge

The post-test of biological information was given at the end of the ten week experimental period. Each inmate student was given the Nelson Biology Test, an alternate form from that taken during the pre-testing. The aim of the testing was to determine if there were differences between the experimental and control groups in regard to acquisition of subject matter as measured by this standardized biology test. The post-test was given under the same experimental conditions as the pretest.

The biology post-test scores are found in the Appendix with the individual scores in the same order as the pretest scores. The post-test mean of the Nelson Biology Test for the experimental group was 95.63 with a standard deviation of 13.97. The post-test mean of the control group was 87.41 with a standard deviation of 15.24.

Test for Significance

The difference between means for the experimental and control groups was tested for statistical significance using the "t" test as given by Edwards.<sup>1</sup> The critical ratio values obtained from testing the significance of the differences between the biology pretest and post-test means for the experimental and control groups are given in Table 4.

TABLE 4

COMPARISON OF THE DIFFERENCES BETWEEN PRETEST AND POST-  
TEST MEANS ON THE NELSON BIOLOGY TEST BY GROUPS

Group	Pretest Mean	S.D.	Posttest Mean	S.D.	Mean Diff.	S.E. of Diff.	C.R.
Control	82.86	14.46	87.41	15.24	4.55	2.81	1.621
Experimental	80.67	12.53	95.63	13.97	14.96	2.71	5.523*

\*Significant beyond the .05 level.

The null hypothesis was used for testing the differences in these means. Since the critical ratio value obtained for the control group was not significant at the .05 level the null hypothesis of no difference in the means is retained. However, the critical ratio value obtained for the experimental group was significant beyond the .05 level. Thus, the null hypothesis of no difference in means is rejected. This indicates that the group which had received bibliotherapy obtained a significant gain in biological knowledge as measured by the Nelson Biology Test, whereas, the control group did not.

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<sup>1</sup>Edwards, op. cit., p. 166.

The critical ratio was used to determine whether or not bibliotherapy in the classroom resulted in a significant gain in biological knowledge compared to the gains obtained by the control group. The mean gains for the experimental and control groups are reported in Table 5.

TABLE 5  
COMPARISON OF MEAN GAINS IN  
BIOLOGICAL KNOWLEDGE

Group	n	Gains		Diff. in Means	S.E. of Diff.	C.R.
		Means	S.D.			
Control	56	4.55	7.91	10.41	3.90	2.67*
Experimental	48	14.96	9.29			

\*Significant beyond the .05 level

The critical ratio value obtained is significant beyond the .05 level. Thus the null hypothesis is rejected. This seems to indicate that the bibliotherapy used with the experimental group was the dominant factor in producing a superior gain in biological information.

#### Change in Personality Functioning

The post-test of personality functioning was given at the end of the ten week experimental period. Each inmate student was given the MMPI, booklet form, the same form as that taken during the pretesting. The aim of the testing was to determine if there were differences between the experimental and control groups in regard to personality functioning as measured by this standardized personality inventory. The post-test was given under the same experimental conditions as the pretest. The post-test means of the experimental and control groups for ten clinical

scales of the MMPI are reported in Tables 6 and 7, along with the pre-test means.

Test for Significance

The differences between means for the experimental and control groups on ten clinical scales of the MMPI were tested for statistical significance using the "t" test as previously used. The critical ratio values obtained from testing the significance of the differences between pretest and post-test means are reported in Tables 6 and 7.

TABLE 6  
TESTS OF SIGNIFICANCE OF THE DIFFERENCES BETWEEN  
PRETEST AND POST-TEST MEANS, MMPI  
EXPERIMENTAL GROUP

Scale	PRETEST Mean	S.D.	POSTEST Mean	S.D.	Diff. in Means	S.E. of Diff.	C.R.
1. Hs+ .5k	54.17	14.91	50.75	12.51	3.42	2.40	1.42
2. D	60.38	11.13	56.33	12.91	4.04	2.46	1.64
3. Hy	56.94	10.48	53.25	7.85	3.69	1.86	1.96*
4. Pd+ .4k	72.85	8.53	65.52	11.22	7.33	2.03	3.61*
5. Mf	53.75	11.04	52.04	10.03	1.71	2.15	.79
6. Pa	59.63	11.64	53.04	9.79	6.58	2.19	3.00*
7. Pt+ 1k	61.15	11.67	58.69	12.01	2.46	2.65	.93
8. Sc+ 1k	61.90	14.51	53.94	15.89	7.96	3.11	2.56*
9. Ma+ .2k	63.27	11.73	61.00	11.54	2.27	2.38	.96
10. Si	55.23	7.88	51.90	8.29	3.33	1.65	2.01*

\*Significant at the .05 level.

TABLE 7

TESTS OF SIGNIFICANCE OF THE DIFFERENCE BETWEEN  
PRETEST AND POST-TEST MEANS, MMPI  
CONTROL GROUP

Scale	Pretest Mean	S.D.	Posttest Mean	S.D.	Diff. in Mean	S.E. of Diff.	C.R.
1. Hs+ .5k	55.91	9.90	52.61	9.16	3.30	1.80	1.83
2. D	60.54	12.07	57.80	13.39	2.73	2.41	1.13
3. Hy	56.09	9.82	55.61	9.16	.48	1.79	.27
4. Pd+ .4k	68.30	14.59	73.25	10.96	-4.95	2.44	-2.03*
5. Mf	52.61	10.22	51.95	9.37	.66	1.85	.36
6. Pa	60.54	11.06	57.75	14.15	2.79	2.40	1.16
7. Pt+ 1k	62.46	13.55	58.27	11.22	4.20	2.35	1.79
8. Sc+ 1k	62.20	14.63	64.27	14.30	-2.07	2.73	-.76
9. Ma+ .2k	62.82	9.50	66.68	10.38	-3.86	1.88	-2.05*
10. Si	56.27	7.71	52.75	10.50	3.52	1.74	2.02*

\*Significant at the .05 level.

The null hypothesis was used for testing the differences in these means. Since the critical ratio values obtained by the experimental group were significant on scales; Hy, Pd, Pa, Sc, and Si at the .05 level, the null hypothesis of no differences in means for these scales was rejected. The critical ratio values for the control group were significant for scale Si only. However, the critical ratio values for the control group on scales Pd and Ma actually possesses significance in the opposite direction. Also, the Sc scale shows a decrement in performance. This would seem to indicate that inmate personality

functioning tends to worsen somewhat due to the day to day variables in this penal institution's program.

Comparison was made of the relative effectiveness of bibliotherapy in the classroom to produce a significant improvement in personality functioning as compared to the improvement obtained by the control group. The mean improvement and critical ratio values for the experimental and control groups on ten clinical scales of the MMPI are reported in Table 8.

The critical ratio values obtained by comparing the mean improvement of the experimental and control groups were significantly in favor of the experimental group on three out of ten clinical scales of the MMPI. Since the critical ratio values obtained by comparing the mean improvement were significant on scales Pd, Ma, and Sc at the .05 level, the null hypothesis of no difference in mean improvement for these scales was rejected. Thus, after receiving bibliotherapy the experimental group was significantly less hypomanic, possessed fewer irrational concepts and evidenced more concern for the well being of others.

It is of interest to note that those scales of the MMPI which are considered to be most indicative of criminality are Pd, Pa, Sc, and Ma. It is reported that individuals deviating on the Pd and Ma scales will usually respond readily to therapy, and evidence personality improvement. While those individuals deviating on Pa and Sc scales will exhibit rigidity of behavior and evidence least promise of being amenable to any type of remedial program.<sup>1</sup> The results of this study seem to confirm

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<sup>1</sup>Hathaway and Monachesi, op. cit., p. 24.

the former contention and partially refute the latter.

TABLE 8

COMPARISON OF MEAN IMPROVEMENT  
IN PERSONALITY FUNCTIONING

Scale	Mean Improvement Experimental	S.D.	Mean Improvement Control	S.D.	Diff. in Means	S.E. of Diff.	C.R.
1. Hs+ .5k	3.42	13.71	3.30	9.53	.11	3.08	.037
2. D	4.04	12.02	2.73	12.73	1.31	3.46	.380
3. Hy	3.69	9.16	.48	9.49	3.21	2.62	1.223
4. Pd+ .4k	7.33	9.87	-4.95	12.77	12.28	3.14	3.923*
5. Mf	1.71	10.51	.66	9.79	1.05	2.88	.365
6. Pa	6.58	10.71	2.79	12.60	3.80	3.24	1.176
7. Pt+ 1k	2.46	12.84	4.20	12.88	-1.74	3.59	.486
8. Sc+ 1k	7.96	15.20	-2.07	14.46	10.03	4.19	2.399*
9. Ma+ .2k	2.27	11.63	-3.86	9.94	6.13	3.09	1.989*
10. Si	3.33	8.08	1.74	9.15	1.59	2.39	.667

\*Significant beyond the .05 level.

The MMPI results presented here as the mean profile codes obtained by the experimental and control groups further illustrate the results of this study. The mean Profile Code for the control group pretest was 4978 62 031-, while the mean Profile Code for the post-test was 4'987263-. The mean Profile Code for the experimental group pretest was 4'98726 301-, while the mean Profile Code for the experimental group post-test was 49 72-.

As can be noted, the scale 4 (Pd) values are prominent in all four codes. It is significant to note that this scale value is primed on the experimental group pretest but is not primed on the post-test code. On the other hand, the 4 (Pd) value is not primed on the pretest code for the control group but was primed on the post-test. This again seems to indicate that inmate personality functioning tends to worsen relative to day to day variables present in this institution's program. It can be further noted that 6 (Pa) and 8 (Sc) scales of the tetrad scales indicative of delinquency tendencies improved enough to be excluded from the high point code.

The Profile Codes also reveal the presence, in a prominent position, of scales 2 (D) and 7 (Pt) in the high point codes of both groups. As can be noted from Tables 6 and 7, neither group made a significant improvement on these two scales. It can be further noted that there was an insignificant improvement of both groups on scale 1 (Hs). It is contented that this is to be expected and, as in the case of the previous two scales, is the result of regimented, depressive prison life.

The Profile Codes further reveal that on both groups the 0 (Si) scale was excluded from the high point code of the post-test, although it was present on both pretest profiles. This corroborates the findings of Table 6 and 7 which reveal a significant improvement on this scale for both groups. It is postulated that this could be the result of the laboratory type of classroom used in this study which makes interaction, sharing and cooperation through group work necessary. This result could also be the result of the total institution program which seeks to give

the student a chance to redeem himself. It is conceivable that this finding could be the result of both.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

#### Summary

This study was designed to ascertain the effect of group bibliotherapy in a reformatory classroom situation. The eight groups in this study were taken two at a time for the semester period of ten weeks. The total length for all four semesters of this study was forty weeks in the school year, 1964-65. The investigator taught both experimental and control group classes. The daily class period was three hours in length and classes met either in the morning or the afternoon. The groups were varied so that two experimental groups were taught in the morning and two in the afternoon. The total number of inmate students in this study was 104.

The eight groups in this study were taught by the Lecture-Demonstration-Laboratory method three hours per day for an average of 48 days a semester. All groups used the same textbook, materials, and laboratory equipment. The experimental group procedure was altered, in that, an average of one hour per day was spent in discussion of mental hygiene materials and the inmate student's personal problems. The bibliotherapy procedure was viewed as being a more inclusive method which included not only general reading materials, such as, fiction and

biography, but predominantly psychiatric and psychological articles and books which were supplementary to the primary bibliotherapy source--the textbook. This more inclusive method also utilized other library resources such as, films, filmstrips, tapes, and bulletin board items.

A conscientious attempt was made to insure that the bibliotherapy procedures were not merely artificially contrived school tasks by amalgamating them into the actual classroom work. The semester academic work and bibliotherapy utilized the following two unit pattern. During the semester group discussion centered around the textbook primarily, plus supplementary biological and psychological readings. It was felt that the course content in biology adapt itself to discussion of the dynamics of human behavior and the inmate's personal problems. The first week of the semester was devoted to botany while orientation and pretesting were being completed. Weeks two through five the inmate student was introduced to similarities in all forms of life. Weeks six through eight were used to introduce the student to the fact that there are dissimilarities in the biological, as well as, the mental and behavioral sphere. The last two weeks of the semester were utilized in reading a play, summarizing, and post-testing.

It was found that reading lengthy fiction or biography took the inmate student away from his academic studies excessively and thus was defeating one aspect of the study. Also, it was too time consuming in that the teacher was forced to coerce too many inmates to read, and to obtain optimal results the passages had to be read aloud in class. As a result of these findings it was felt that the textbook would have

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A conscientious attempt was made to insure that the bibliotherapy procedures were not merely artificially contrived school tasks by amalgamating them into the actual classroom work. The semester academic work and bibliotherapy utilized the following two unit pattern. During the semester group discussion centered around the textbook primarily, plus supplementary biological and psychological-sociological readings. It was felt that the course content in biology would readily adapt itself to discussion of the dynamics of human behavior and the inmate's personal problems. The first week of the semester was spent in studying botany while orientation and pretesting were being completed. In weeks two through five the inmate student was introduced to the similarities in all forms of life. Weeks six through eight were used to introduce the student to the fact that there are dissimilarities in the biological, as well as, the mental and behavioral sphere. The last two weeks of the semester were utilized in reading a play, summarizing, and post-testing.

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to be the primary unifying resource material for the two teaching units. This finding does not preclude the use of fiction and biography in bibliotherapy for as authors, such as, Johnson<sup>1</sup> have shown these have been very usable tools. It does indicate, however, that in this particular instance other bibliotherapy materials were more useful.

Thus, at approximately the fourth week of the semester instead of giving the inmates a list of books as was previously thought would need to be done, a committee was elected to direct the reading and discussion, and suggest possible films on psycho-social problems, particularly criminality. Inmate students were encouraged to bring clippings on criminality from newspapers and magazines and place them on the bulletin board. They were encouraged to discuss these news items as current event affairs pertinent to them, as was suggested by Reynolds.<sup>2</sup>

The investigator's job became the usual biology teacher's task of getting a discussion started and trying to keep it on the unit topic as much as possible. The aim was to promote examination by the class of what the author said, and the significance of his facts and ideas to the personal problems of the inmate. As was emphasized by Barton,<sup>3</sup> the investigator tried to familiarize himself with the background of each inmate and was thus able to orientate the discussion toward the needs and interests of a particular student or students. These procedures eventuated in spending at least one hour per day in reading and

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<sup>1</sup>Johnson, op. cit., pp. 207-209.

<sup>2</sup>E. Andrew Reynolds, "Bulletin Boards, Visual Aids, and Charts," Journal of Correctional Education, XVIII (July, 1966), pp. 29-30.

<sup>3</sup>Barton, op. cit., p. 24.

discussion of the various books, articles, films, and current events which the inmates were interested.

Finally, it was suggested by the experimenter that the entire class read and discuss one short play together in a modified type of role playing. A play which adequately met the needs of the therapy and proved to be popular with the inmate students was "Glass Menagerie," by Tennessee Williams.

It was also found that there are certain personal characteristics which the teacher must possess. The bibliotherapist must maintain a special attitude toward the class: complete acceptance of each student and tolerance for his feelings. This is not a simple thing to do for the average middle class reformatory teacher including the present investigator. It was ascertained in this study that teacher enthusiasm will make or destroy this method. The teacher must be able to control the class, yet is not obtrusive or domineering. He must like his job and respect his students, and they must react in kind. Likewise, it was realized by the investigator that this method requires a great amount of physical stamina and perhaps too many sleepless nights. However, it was felt that its assets far outweigh any liabilities in that the classroom becomes more active in bettering the lives of the inmate student than would be possible in a static condition.

Intelligence tests, biology information, and a personality inventory were given as pretests. An alternate form of the biology information test was given as a post-test, as was the same form of the personality inventory.

The test for dependent measures was utilized to ascertain if

there was a differential morning or afternoon biology achievement effect present in the experimental situation. It also served as a measure for combining the eight groups into two groups.

The Chi Square Test for independence of data was also used to ascertain if there was a differential morning or afternoon personality effect present in the experimental situation. It also served as a measure for combining the eight groups into two groups.

None of the critical ratio values obtained was significant enough to question the assumption that all the cases in each group were randomly selected from the same or similar populations, and that the morning or afternoon effect was negligible. Thus, the eight groups in this study were combined into two groups; experimental and control. Also, results of the critical ratio test indicated that there were no statistically significant differences between the pretest means of the experimental and control groups in intelligence, biology information and personality functioning. Thus, the two groups were considered to be initially equal in regard to these factors.

At the end of the ten week experimental period each subject was given an alternate form of the Nelson Biology Test. The critical ratio test of significance of the difference between the mean biology information pretest and post-test scores revealed that bibliotherapy in the classroom resulted in a statistically significant increment in biological information. The difference between the pretest and post-test means was significant beyond the .05 level. However, the critical ratio value obtained for the control group was not significant at the .05 level. This seems to indicate that bibliotherapy in the classroom was

the dominant factor in producing a superior gain in biological knowledge. It also seems to indicate that without therapy the inmate student will not obtain a significant increment in biological information.

This result is seen as quite probable and not unusual in a reformatory classroom situation regardless of teaching method. This is predominantly due to obvious motivational factors outside the four walls of the classroom. As Park<sup>1</sup> indicated, those who need educational progress are the most difficult to get involved in the school process not because of capacity but because of motivational reasons. This was seen as being due to the fact that these inmate students have encountered enough failure experiences to be properly skeptical of their ability to succeed. It was found that those inmates in the control group who made a significant gain in biological knowledge were usually those who were to soon come up for parole or job reclassification, both of which require good academic records. It was found by the investigator, as was so aptly expressed by Park that: "To implant a degree of academic motivation and confidence in those with 'born to lose' tattooed on their arms is less a pedagogical technique than it is major surgery."<sup>2</sup>

The post-test of personality was also given at the end of the ten week experimental period. Each subject was given the MMPI, booklet form, the same form as that taken in the pretesting. The critical ratio values obtained from testing the significance of the difference between the pretest and post-test means for ten clinical scales of this inventory

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<sup>1</sup>Park, op. cit., pp. 4-6.

<sup>2</sup>Park, ibid., p. 5.

revealed that there was significant improvement on scales; Hy, Pd, Pa, Sc, and Si for the experimental group. The critical ratio values for the control group were significant on scale Si only. On the other hand, the critical values for the control group actually possessed significance in the opposite direction on scales Pd and Ma. This seems to indicate that inmate personality functioning tends to worsen somewhat due to the day to day variables present in this penal institution's program.

This latter result portends ominous far reaching significance for correctional officials. As was previously indicated,<sup>1,2</sup> this result may be the usual expected and not the exception. If inmate attitudes worsen as this study seems to indicate then it becomes apparent that the high rate of recidivism could be due to factors indicating a lack of insight as to what is the link between recidivism and reformatory programming. This result should be viewed in light of the results presented in Table 4 which showed that academic achievement was lacking in the control group classroom situation. It is thus seen that these results give credence to Rich's contention that, "only a program which seeks, first, to eliminate mental, social, and emotional problems and, second, help delinquents acquire knowledge for human efficiency, can be of real value for the individual."<sup>3</sup>

Comparison was made as to the relative effectiveness of biblio-

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<sup>1</sup>Elliott, op. cit., p. 95.

<sup>2</sup>Sutherland, op. cit., p. 585.

<sup>3</sup>H. Lindall Rich, "A Philosophy of Education in Residential Treatment for Delinquents," Journal of Correctional Education, XIX (January, 1967), p. 8.

therapy in the reformatory classroom to produce a significant gain in personality functioning as compared to gains obtained by the control group. The critical ratio values obtained by comparing the mean improvement of the experimental and control groups were significantly in favor of the experimental group on scales, Pd, Sc, and Ma. This seems to indicate that the experimental group possessed fewer psychopathic deviate tendencies in that the Pd scale measures traits which are supposedly antithetical to the mores of society. Individuals who score high on this scale typically seem little effected by remorse and do not appear to be particularly modified by censure and punishment. They are likely to commit asocial acts, but these frequently lack obvious motive. Thus, a significant decrease in this scale shows that the goals of the institution and therapy are being facilitated by the experimental procedures. Table 8 also indicated that a significant decrease in the Sc scale resulted. This scale is ostensibly related to the degree to which an individual thinks and reacts like society in general. This scale is thought to measure the way in which the person may distort some aspect of the world around him, perceiving it differently than others and reacting to it in unusual ways. It is thus seen that the inmate students in bibliotherapy were less prone to distort reality and accept their situation as it is, and the purpose of correction as it was meant to be. This was an important goal of the bibliotherapy procedure. The third scale which showed a significant decrease was the Ma scale. This scale is intended to measure the personality factor characteristic of persons with marked overproductivity in thought and action. When this becomes abnormal, the hyper-activity may lead to antisocial acts, when coupled

with a high Pd scale, or to irrational manic behavior when coupled with a high Sc scale.

As was previously contended, those scales of the MMPI which are considered to be most indicative of criminality are Pd, Pa, Sc, and Ma. It is reported that individuals deviating on the Pd and Ma scales will usually respond to opportunities for useful activity or rearrangement of environment or therapy, and will show personality improvement readily. While those individuals deviating on the Pa and Sc scales will exhibit rigidity of behavior and evidence least promise of being amenable to any type of remedial program.<sup>1</sup> The results of this study seem to confirm the former contention and partially refute the latter.

The results of the MMPI were also presented as the mean Profile Codes obtained by the experimental and control groups which further illustrated the results of this study. The mean Profile Code for the control group pretest was 4978 62 031-, while the mean Profile Code for the post-test was 4'987263-. The mean Profile Code for the experimental group pretest was 4'98726 301-, while the mean Profile Code for the experimental group post-test was 4972-.

As can be noted, the scale 4 (Pd) values are prominent in all four codes. It is significant to note that this scale value is primed on the experimental group pretest but is not primed on the post-test code. On the other hand, the 4 (Pd) value was not primed on the pretest code for the control group but was primed on the post-test. This again seems to indicate that inmate personality functioning tends to worsen relative

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<sup>1</sup>Hathaway and Monachesi, op. cit., p. 24.

to acceptance of authority due to the everyday variables at work in this institution's rehabilitation program in that the Pd scale is thought to reflect characterological negativism and lack of identification with or acceptance of authority. It can be further noted that the 6 (Pa), and 8 (Sc) scales indicative of delinquency tendencies improved enough to be excluded from the high point code of the experimental group. This seems to be significant in that, as was previously noted, these two scales were thought least amenable to remedial procedures. Also, as was reported in Table 8, there was significant improvement earned on three out of the four scales, including Sc, when compared to the control group. It may be significant to point out that Lauber<sup>1</sup> indicated that the Sc scale of her group proved to be the most indicative delinquency scale, in that her success group showed significantly better results on this scale. The present finding seems to corroborate her results.

Another interesting result was the presence, in a dominant position, of scales 7 (Pt), and 2 (D) in the high point codes of both groups. As can be noted from Tables 6 and 7, neither group made a significant improvement on these two scales. This result was expected in that the very fact of incarceration tends to produce depression. Also, the regimented routine of prison life tends to produce incipient neurotic compulsions. The Profile Codes also reveal the insignificant improvement made by both groups on scale 1 (Hs). It was postulated that this was to be expected and, as was the case in scales 7 (Pt) and 2 (D) was the

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<sup>1</sup>Lauber, op. cit., p. 18.

result of regimented, depressive prison life. As was previously noted, the regimented routine of this penal institution's program also effected the bibliotherapy procedure adversely. As a whole, as was ascertained by the investigator, the inmate students in this study are the product of despicable home and community environments in which rejection and emotional and physical neglect was prevalent as has been found and reported in other research studies.<sup>1</sup> As was witnessed by the investigator, a large percentage of the inmate students were receiving three meals a day for the first time in their life.

The Profile Codes also revealed that on both groups the 0 (Si) scale was excluded from the high point code of the post-test, although it was present on both pretest profiles. This further corroborates the findings of Tables 6 and 7, which show a significant improvement on this scale for both groups. It is postulated that perhaps this is the result of the laboratory type of classroom used in this study which makes interaction, sharing, and cooperation through group work mandatory. This would conceivably make the inmate student less socially recluse. Or this result could be due to the total institution rehabilitation program which seeks to give the student an opportunity to experience useful activity through such activity as vocational training. It is conceivable that this finding is the result of both. This last conclusion is a hopeful sign in that an integrated program of rehabilitation in the academic classroom, practical vocational training, and increased utilization of every facet of the institution program is contended to be the optimal

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<sup>1</sup>Cole and Hall, op. cit., p. 428.

method to effect any type of socially acceptable, lasting change in the inmate student.

### Conclusions

On the basis of the techniques of statistical analysis used in this study, and within the limitations imposed by the tests employed and the length of the experimental period, the following conclusions are drawn.

1. The improvement of the experimental group in biological information as measured by the Nelson Biology Test was significantly greater than the improvement of the control group.

2. The improvement of the experimental group in personality functioning as measured by the MMPI was significantly greater than the improvement of the control group.

3. The significant improvement in the performance of the experimental group over the control group on these tests is attributed to the experimental procedures used.

4. The experimental procedures used in this investigation were the most effective in improving inmate performance on scales Pd, Sc, and Ma of the MMPI.

5. The experimental procedures used in this investigation were the least effective in improving inmate performance on scales Hs, D, and Pt of the MMPI.

6. The significant improvement of both groups on scale Si is attributed to the teaching method utilized and/or the total rehabilitation program of the institution.

7. The significant decrement in the performance of the control group on scales Pd and Ma is attributed to the inadequacies of the total rehabilitation program of the institution.

8. The bibliotherapy procedures utilized in this regularly scheduled, average reformatory classroom situation were the most useful when not artificially imposed as something extra to the average curricular offering. It is necessary to use the textbook as the unifying source, supplemented by short articles in the subject matter and in psychology-sociology.

#### Recommendations

A review of the findings of this study suggests a need for additional investigation as follows:

1. The experimental time allotment might be extended to two or three ten-week semesters in an effort to determine differences in achievement and personality over this greater length of time.

2. The experimental time allotment per day might be rigidly controlled to determine the optimal amount of time to be spent in bibliotherapy daily.

3. Similar studies relating to the effectiveness of bibliotherapy in the reformatory classroom should be carried on in the various other academic areas.

4. Further research in this area might well make use of bibliotherapy in the public school classroom.

5. Future research relating to the effectiveness of bibliotherapy in the classroom should be attempted with older, more hardened, criminals.

6. Similar studies relating to bibliotherapy should be carried on with female reformatory inmates.

7. Further studies should be made into the applicability of classroom bibliotherapy to the grade school reformatory inmate. Such research should result in increased understanding of both method and materials at this lower grade level.

8. Future research in this area should continue to concentrate on ascertaining which specific kinds of bibliotherapeutic materials are best suited to effect greatest results.

9. Similar studies relating to the effectiveness of bibliotherapy in the reformatory classroom should be carried on in an attempt to ascertain more and better ways in which the library can facilitate the correctional process.

10. Future research should concentrate on developing textbooks for the reformatory classroom which include the element of bibliotherapy.

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**APPENDIX**

CALIFORNIA TEST OF MENTAL MATURITY SCORES OF 104 INMATE STUDENTS  
CLASSIFIED ACCORDING TO CONTROL AND EXPERIMENTAL GROUPS

Group	Control		Experimental	
	I.Q.		I.Q.	
	98	92	89	99
	115	91	81	84
	105	93	102	101
	92	86	112	112
	96	93	104	107
	98	105	104	104
	93	91	87	108
	92	89	101	92
	101	103	104	94
	98	97	103	93
	93	85	91	110
	110	77	100	90
	108	93	94	97
	100	105	83	101
	98	101	98	98
	98	110	89	101
	88	86	92	90
	98	94	98	88
	94	84	97	87
	97	107	97	96
	104	98	92	99
	88	93	102	110
	96	90	98	99
	100	103	99	106
	105	100		
	104	90		
	92	100		
	78	86		
Mean	96.09		97.54	
S.D.	7.85		7.65	
Grand Mean			97.41	
Grand S.D.			7.77	

NELSON BIOLOGY PRETEST STANDARD SCORES OF 104 INMATE STUDENTS  
CLASSIFIED ACCORDING TO CONTROL AND EXPERIMENTAL GROUPS

Group	Control		Experimental	
	Score		Score	
	80	68	80	100
	76	72	81	83
	96	61	89	85
	72	80	105	83
	84	108	73	69
	84	64	73	77
	100	64	73	97
	88	72	65	73
	68	113	61	77
	76	76	73	77
	76	68	67	85
	68	96	73	83
	64	101	104	85
	92	72	96	89
	76	100	72	103
	68	84	69	83
	84	96	65	100
	84	80	63	95
	112	92	61	77
	84	72	64	73
	76	92	80	103
	61	90	81	93
	104	91	65	88
	92	80	69	92
	84	72		
	64	88		
	81	89		
	76	129		
Mean	82.86		80.67	
S.D.	14.46		12.63	
Grand Mean	82.00			
Grand S.D.	13.41			

NELSON BIOLOGY POSTEST STANDARD SCORES OF 104 INMATE STUDENTS  
CLASSIFIED ACCORDING TO CONTROL AND EXPERIMENTAL GROUPS

Group	Control	Experimental
	Score	Score
	117 77	92 121
	114 112	87 110
	93 73	112 105
	75 86	107 105
	67 107	93 112
	65 71	81 97
	100 74	98 107
	92 77	83 85
	74 112	64 96
	76 78	78 95
	72 81	75 98
	69 102	81 100
	73 118	102 108
	77 84	113 115
	87 96	87 71
	87 90	91 98
	75 104	93 122
	89 82	105 92
	117 104	71 82
	71 83	77 102
	65 97	104 115
	69 85	100 102
	93 104	71 100
	72 75	87 100
	85 83	
	113 92	
	76 92	
	84 109	
Mean	87.41	95.63
S.D.	15.24	13.97
Grand Mean	92.612	
Grand S.D.	14.579	

MINNESOTA MULTIPHASIC PERSONALITY INVENTORY SCORES OF 104 INMATE  
STUDENTS CLASSIFIED ACCORDING TO CONTROL AND EXPERIMENTAL GROUP

INMATE NO.	Control Group Pretest													Control Group Post-Test												
	HS	D	HY	PD	MF	PA	PT	SC	MA	SI	L	F	K	HS	D	HY	PD	MF	PA	PT	SC	MA	SI	L	F	K
22547	52	60	53	57	51	73	75	74	73	70	2	12	4	41	46	47	55	61	53	75	88	75	64	2	15	6
21790	65	46	75	55	74	59	73	65	50	53	2	16	8	59	41	55	64	65	62	48	59	60	51	6	4	12
22031	41	39	45	81	41	59	48	71	91	46	1	14	7	52	46	60	81	51	56	48	61	91	37	8	8	17
22442	52	53	51	71	47	53	54	50	45	48	1	5	10	47	34	47	64	37	38	44	55	78	35	3	10	17
22579	70	72	64	71	30	67	89	71	75	50	3	15	16	49	41	42	64	51	91	50	61	58	53	7	3	18
22530	57	39	38	60	43	50	50	48	70	53	7	5	9	49	46	47	64	43	44	56	53	75	48	7	3	12
22557	52	60	54	57	49	50	52	48	50	60	7	4	3	54	58	56	50	51	53	50	50	58	50	8	2	7
22454	62	92	60	93	55	67	81	74	58	72	3	6	10	54	75	53	31	63	50	66	51	55	61	4	3	11
22266	67	70	63	67	80	73	58	59	73	54	6	1	13	44	58	47	64	51	79	64	57	70	56	4	4	9
22517	54	80	63	86	59	73	79	82	70	68	2	13	8	44	82	60	71	67	73	83	88	58	79	3	13	7
22318	44	48	49	57	34	62	56	54	65	49	0	6	10	41	51	51	67	47	50	50	53	73	55	4	9	12
22559	52	58	52	46	49	53	52	57	58	58	5	7	10	52	63	60	83	59	73	77	80	78	55	4	10	11
21803	47	58	57	39	41	47	42	48	50	50	4	7	12	44	46	47	74	53	50	58	53	68	56	4	7	12
21869	52	58	49	64	49	44	48	54	63	48	4	5	15	49	34	45	67	57	41	52	50	68	43	4	5	15
21014	49	51	51	71	59	79	85	69	55	58	5	8	7	52	70	53	86	63	65	75	74	65	56	5	13	8
22636	49	46	61	69	49	61	42	50	75	51	1	5	9	65	60	75	74	61	47	66	71	73	45	8	4	17
22067	47	63	51	74	41	50	42	44	55	51	4	7	14	54	68	64	88	55	70	66	63	50	45	9	10	20
22685	44	60	51	57	41	67	66	74	55	64	8	10	7	52	63	45	60	47	53	71	74	68	60	8	10	8
20452	82	70	74	69	74	82	75	90	68	63	8	14	25	44	51	53	81	57	82	64	84	60	63	12	14	13
22622	59	63	58	81	51	44	50	42	70	51	2	5	12	62	63	60	86	47	35	42	98	70	48	12	7	13
22155	49	48	52	50	45	50	60	54	53	58	5	9	10	54	70	58	86	45	88	60	92	87	53	4	7	13
22662	39	51	42	39	43	56	48	46	58	48	5	2	12	62	63	60	86	47	35	42	48	70	48	12	7	13
22668	67	60	60	71	55	70	66	69	55	51	8	6	12	54	70	51	71	51	47	58	61	53	53	11	9	13
22034	59	41	54	69	51	41	42	50	60	51	7	8	15	65	70	58	76	39	50	58	65	60	48	12	7	17
22441	41	65	51	53	63	56	50	48	60	53	2	1	8	49	68	53	86	63	88	54	74	65	54	6	8	11
22421	52	53	55	67	51	53	42	44	58	48	2	6	5	44	56	56	79	57	47	69	71	75	48	4	4	8
22736	44	53	43	62	39	47	48	48	63	51	2	5	13	44	56	60	93	39	70	54	84	91	51	5	4	11

MMPI SCORES, CONTROL GROUP - CONTINUED

INMATE NO.	Control Group Pretest												Control Group Post-Test													
	HS	D	HY	PD	MF	PA	PT	SC	MA	SI	L	F	K	HS	D	HY	PD	MF	PA	PT	SC	MA	SI	L	F	K
22762	67	84	51	79	55	70	79	80	75	58	5	4	11	54	63	60	69	41	41	56	44	63	46	5	1	11
22733	52	58	50	86	45	67	54	55	58	50	3	8	6	39	32	42	62	34	41	36	51	81	41	2	12	12
21404	49	58	77	60	67	62	79	53	55	68	6	8	13	54	72	76	88	71	67	60	65	75	43	5	11	14
22155	70	68	65	83	41	65	60	88	78	43	5	11	13	65	56	60	69	34	38	60	63	63	43	7	7	15
22880	67	70	63	71	57	79	66	72	58	63	1	9	14	44	51	53	71	49	79	54	59	75	63	5	10	10
22612	49	51	51	83	57	44	58	55	53	50	2	8	11	44	51	49	79	53	53	54	57	63	46	6	6	13
22546	59	60	47	69	51	50	50	48	58	50	1	8	15	41	39	42	76	47	62	48	61	88	40	5	10	10
22847	49	48	45	71	55	62	66	61	73	55	5	9	13	44	51	45	69	59	59	48	57	68	50	13	5	12
22795	62	65	63	67	46	59	71	68	55	62	1	7	10	47	70	58	74	51	62	62	61	55	54	2	10	8
22300	57	77	63	64	65	56	83	59	65	60	2	12	8	57	41	54	64	47	41	48	53	65	62	2	2	7
21723	57	58	47	76	63	56	58	46	83	69	2	6	12	44	44	53	57	41	41	42	42	63	49	7	2	13
22730	57	70	56	71	49	73	73	82	60	61	0	12	6	72	80	75	83	63	76	89	99	60	70	7	7	19
22492	36	58	49	69	49	62	69	42	63	55	5	5	9	39	51	51	71	51	59	44	57	86	50	5	5	9
22838	77	68	77	67	53	70	70	76	53	60	2	13	7	72	63	67	60	51	67	52	76	65	41	2	15	7
22623	57	80	75	71	65	56	71	71	63	54	4	12	11	54	58	60	53	61	56	60	50	50	54	3	9	6
23141	57	65	46	71	55	47	56	48	60	49	3	6	9	62	77	56	90	43	67	60	55	48	74	1	15	15
22990	52	60	49	67	53	53	48	53	60	51	3	4	10	49	60	42	71	59	53	64	69	55	72	3	7	12
22878	59	75	77	64	51	69	73	78	65	62	3	16	15	80	84	75	100	67	73	71	84	63	65	10	16	24
23090	65	75	49	79	60	76	73	55	60	51	6	16	15	54	44	53	64	34	56	46	53	68	38	3	1	19
22989	62	77	72	79	51	73	79	88	75	71	6	14	14	57	36	47	55	37	50	64	73	63	51	2	5	12
22704	54	48	65	60	57	56	48	46	60	48	9	1	14	57	65	65	79	55	53	60	55	58	43	5	0	25
22992	47	41	54	86	72	82	71	82	48	68	5	15	5	44	41	49	71	39	47	50	53	60	45	4	4	14
22557	57	53	49	69	55	70	62	80	75	49	3	4	14	52	53	56	71	53	53	58	53	68	38	7	4	17
23050	57	51	53	64	43	50	44	48	58	49	4	4	12	47	60	46	62	45	50	46	57	50	68	3	6	11
23122	49	68	59	79	55	56	79	69	68	54	2	9	6	57	75	60	76	63	56	69	78	73	64	4	11	6
23052	65	75	51	81	53	70	84	80	78	67	4	15	11	72	84	82	83	63	79	79	92	70	73	2	11	18

MMPI SCORES, CONTROL GROUP - CONTINUED

INMATE NO.	Control Group Pretest													Control Group Post-Test												
	HS	D	HY	PD	MF	PA	PT	SC	MA	SI	L	F	K	HS	D	HY	PD	MF	PA	PT	SC	MA	SI	L	F	K
22208	77	72	69	46	69	47	73	67	63	69	1	7	6	62	72	55	76	57	54	71	59	63	69	3	12	8
22852	67	46	47	86	47	76	75	93	55	68	2	15	7	49	60	60	76	59	56	52	53	65	38	3	11	12
22836	49	53	46	69	47	47	52	55	68	62	8	5	15	52	53	58	81	55	56	58	51	55	49	5	6	11
	MEAN													MEAN												
	S.D.													S.D.												
HS	55.91													52.61												
D	60.54													57.80												
HY	56.09													55.61												
PD	68.30													73.25												
MF	52.61													51.95												
PA	60.54													57.75												
PT	62.46													58.27												
SC	62.20													64.27												
MA	62.82													66.68												
SI	56.27													52.75												

MINNESOTA MULTIPHASIC PERSONALITY INVENTORY SCORES OF 104 INMATE  
STUDENTS CLASSIFIED ACCORDING TO CONTROL AND EXPERIMENTAL GROUP

INMATE NO.	Experimental Group Pretest												Experimental Group Post-Test													
	HS	D	HY	PD	MF	PA	PT	SC	MA	SI	L	F	K	HS	D	HY	PD	MF	PA	PT	SC	MA	SI	L	F	K
22301	49	53	45	76	40	44	46	44	50	54	2	5	12	52	51	51	53	43	44	48	38	50	51	1	10	9
22550	62	63	69	81	62	50	50	46	55	41	2	8	11	59	51	58	50	43	50	54	38	53	44	3	9	2
22558	85	82	79	76	74	67	85	82	58	65	1	11	8	80	70	60	53	51	59	60	46	45	42	3	8	12
22359	72	86	67	71	56	67	73	71	48	73	3	10	10	57	92	55	69	55	65	75	74	60	74	5	11	17
22482	49	56	53	64	44	56	42	48	53	54	1	2	8	49	48	55	71	45	59	52	50	55	38	7	4	22
22279	82	70	60	64	48	50	60	55	63	48	3	12	5	90	82	62	76	34	50	64	61	60	41	11	4	26
22204	41	58	53	64	45	38	50	57	63	70	1	7	8	41	60	47	64	47	41	42	44	58	58	4	10	12
22299	39	58	45	64	37	56	57	61	75	52	3	8	11	31	46	44	55	47	47	42	42	65	63	4	3	6
21936	44	46	51	79	49	47	60	57	70	48	1	7	10	52	44	64	76	57	53	54	50	65	43	8	0	20
22194	62	72	65	69	59	59	66	57	68	45	6	6	17	39	48	51	60	49	44	54	53	65	48	5	5	13
22149	47	48	45	88	51	73	77	63	65	49	5	3	12	49	46	47	64	49	56	52	38	50	53	2	4	10
21989	44	51	47	57	47	50	67	57	65	54	2	6	11	53	51	62	48	37	47	50	44	53	50	4	5	16
22471	52	56	51	76	53	59	58	63	68	49	1	9	9	41	63	53	55	57	47	52	44	38	58	7	6	12
22649	54	65	47	78	60	56	42	51	60	58	1	5	12	49	48	51	48	55	47	46	38	48	49	5	4	10
22507	52	77	71	81	51	67	73	73	55	55	5	13	7	49	39	55	74	73	53	66	48	98	52	5	12	10
22610	67	60	53	74	61	79	87	101	78	65	2	8	24	52	75	62	53	47	50	83	40	75	50	4	11	16
22587	57	65	53	71	58	73	66	63	60	60	3	10	13	52	48	53	69	45	50	50	38	45	48	9	5	17
22262	52	56	53	69	55	79	69	61	58	58	0	9	10	47	34	55	64	34	44	38	44	68	41	5	2	15
22495	57	70	49	74	59	56	64	48	65	49	4	10	11	49	63	51	67	65	50	60	61	68	45	8	5	13
22712	72	56	81	79	45	65	56	51	45	49	5	2	19	44	41	47	50	39	41	64	79	70	48	2	11	17
22711	59	68	78	83	95	56	60	57	48	42	1	3	5	49	48	45	71	43	38	54	50	63	48	5	4	15
22890	52	70	51	87	54	67	54	48	81	67	1	11	15	92	75	78	83	65	70	75	87	73	55	7	12	9
22848	65	68	62	71	37	47	52	55	53	51	4	7	16	54	48	53	50	62	56	48	44	58	48	3	4	8
22893	41	60	64	67	69	65	62	48	45	63	2	7	6	54	65	45	74	43	70	71	85	75	50	8	11	12
22646	44	42	53	76	56	56	46	53	60	50	3	6	11	59	77	55	71	61	67	62	82	63	65	8	5	21
22663	62	58	62	86	73	70	83	93	86	55	5	15	10	49	70	58	88	53	53	69	53	53	67	6	4	15
22462	41	63	55	74	59	65	69	65	55	47	4	7	7	54	56	62	48	56	53	62	51	50	43	3	9	2

MMPI SCORES, EXPERIMENTAL - CONTINUED

EXPERIMENTAL Group Pretest													Experimental Group Post-Test																
INMATE NO.	HS	D	HY	PD	MF	PA	PT	SC	MA	SI	L	F	K	HS	D	HY	PD	MF	PA	PT	SC	MA	SI	L	F	K			
22775	65	65	58	71	49	47	52	57	43	50	4	8	15	39	70	55	71	55	50	60	42	50	46	8	4	8			
22861	36	39	53	64	51	50	62	57	78	51	1	8	8	36	53	47	69	69	47	62	42	60	48	5	5	8			
22781	47	48	49	69	47	59	44	51	65	60	2	5	11	41	65	45	60	68	53	62	36	53	48	6	4	16			
22942	44	53	56	58	43	67	52	55	86	47	2	11	8	36	44	45	62	73	53	46	46	60	53	6	6	12			
22833	39	65	49	71	38	38	38	38	60	46	2	6	9	36	56	53	60	38	50	48	46	64	53	6	5	9			
22945	62	53	71	83	51	59	58	71	75	58	5	11	9	75	77	65	83	47	59	58	71	75	56	5	10	16			
22403	65	63	67	67	63	62	69	73	65	65	0	10	7	65	63	69	86	71	56	81	65	70	51	1	6	11			
23105	57	53	47	79	51	59	42	57	60	54	6	9	11	52	51	47	69	53	59	58	65	58	51	5	2	19			
23117	49	72	67	71	53	65	79	82	55	66	6	13	6	39	56	40	62	41	50	69	63	43	55	2	7	10			
22941	39	53	53	60	60	53	62	53	50	62	2	8	6	36	58	44	55	61	56	60	59	48	61	3	7	5			
22828	52	48	38	60	55	59	60	53	60	64	1	10	10	52	51	51	67	53	70	75	61	73	53	2	12	7			
22932	49	72	76	74	61	70	73	87	75	68	1	13	10	54	53	58	67	49	62	56	59	58	51	8	4	24			
22546	49	53	51	83	37	44	58	55	53	50	2	8	11	44	51	49	79	53	53	54	50	63	46	6	6	13			
22497	65	72	58	85	49	56	69	61	55	54	1	9	10	39	48	53	71	41	59	58	48	65	45	1	1	11			
22654	49	56	51	76	55	41	58	51	50	60	5	4	9	47	53	47	69	63	38	52	50	65	63	6	4	16			
23011	47	48	40	74	45	50	52	51	65	54	4	8	10	39	44	42	55	53	35	30	32	55	73	3	10	12			
23015	57	39	53	71	51	62	64	73	83	54	2	10	8	41	34	44	60	53	56	66	65	70	55	0	8	7			
23113	59	70	62	53	46	83	71	80	70	63	4	14	9	65	75	65	90	48	91	83	109	68	70	2	8	30			
23040	59	68	49	74	58	53	62	53	68	45	6	11	19	57	56	51	67	55	59	73	69	91	48	1	10	6			
23027	39	48	51	88	45	93	48	92	86	46	5	5	15	59	46	51	57	45	47	42	48	60	46	4	2	18			
22779	65	80	71	67	75	70	75	92	81	62	4	15	9	49	60	55	81	55	47	75	61	58	47	4	7	14			
	MEAN	S.D.				MEAN	S.D.				MEAN	S.D.				MEAN	S.D.				MEAN	S.D.							
HS	54.17	14.91				PA	59.63		11.64		HS	50.75		12.51		PA	53.04		9.79		D	60.38		11.13		PT	61.15		11.67
D	60.38	11.13				PT	61.15		11.67		D	56.33		12.91		PT	58.69		12.01		HY	56.94		10.48		SC	61.90		14.51
HY	56.94	10.48				SC	61.90		14.51		HY	53.25		7.85		SC	53.94		15.89		PD	72.85		8.53		MA	63.27		11.73
PD	72.85	8.53				MA	63.27		11.73		PD	65.52		11.22		MA	61.00		11.54		MF	53.75		11.04		SI	55.23		7.88
MF	53.75	11.04				SI	55.23		7.88		MF	52.04		10.03		SI	51.90		8.29										

## BIBLIOTHERAPY FILMS

The following films were utilized at least one or more times during the experimental period. The inmate student was asked to take notes and be prepared to discuss them. The criteria used to select the films were that the film must be short, to the point, and stimulative to controversy.

1. **BOY WITH A KNIFE**-- 24 min., 1956  
Shows how a prospective delinquent and other boys are steered away from delinquency through the formation of a supervised neighborhood club.
2. **CAR THEFT**-- 15 min., 1960  
A film which dramatically spotlight this world-wide phase of Juvenile Delinquency.
3. **CHILDREN ON TRIAL (2 parts)**-- 1 hr., 10 min., 1946  
Two boys and a girl, repeat offenders, are sent to approved schools for rehabilitation. They finally realize they are being given a fresh start in life.
4. **THE DROPOUT**-- 29 min., 1961  
This film faces the problem that in the next ten years four million teenaged children out of ten million will be without a high school diploma.
5. **HEREDITY AND FAMILY ENVIRONMENT**-- 9 min., 1955  
The roles of heredity and environment, how they mesh in actual living, voluntary and involuntary actions, and the physical effects of emotions are illustrated.
6. **HIGH WALL**-- 32 min., 1952  
An outbreak between teen-age gangs lands two boys in the hospital. The psychiatrist, with the aid of a social case-worker, reconstructs the background causes.
7. **STORY OF A TEEN-AGE DRUG ADDICT**-- 22 min., 1951  
Shows dangers of association with drug addicts.
8. **MARRIAGE AND DIVORCE**-- 15 min., 1949  
Frankly surveys the problem of broken homes and offers the opinions of experts as to what should be done.
9. **MENTAL HEALTH YEAR**-- 45 min., 1962  
A documentary film giving examples of progress in the care and treatment of the mentally ill throughout the world.
10. **PLAIN FACTS ABOUT SYPHILIS AND GONORRHEA**-- 12 min., 1947  
Frank discussion of syphilis and gonorrhoea.

11. **SHOULD YOU DRINK?-- 22 min., 1959**  
Designed to promote discussion and self-analysis about reasons for moderate drinking; dramatically discusses the importance of each person making an honest and intelligent decision about the use of alcohol.
12. **SIBLING RELATIONS AND PERSONALITY-- 22 min., 1956**  
Demonstrates the relationships a child has with his brothers and sisters throughout developmental years and how these relationships are important factors in personality shaping.
13. **SOCIAL ACCEPTABILITY-- 20 min., 1960**  
This film illustrates the correlation between social acceptability and the successful adjustment and happiness of the average adolescent.
14. **UNCONSCIOUS MOTIVATION-- 38 min., 1949**  
Demonstrates how unconscious motives can influence and direct our everyday actions.
15. **THE TROUBLE MAKER-- 12 min., 1959**  
The dramatic story of a boy who turns troublemaker as a means of satisfying his own needs. Designed to show the inter-action between the troublemaker, his peer group, and the laws which protect society.
16. **YOUTH AND THE LAW-- 36 min., 1962**  
The police officer and youth; teamwork between mental health personnel and police; mobilizing community services for community education.

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## BIBLIOTHERAPY EXCERPT

## FROM A PLAY

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The following is a representative example of the type of bibliotherapy material used in classroom discussion of the play, "Glass Menagerie," by Tennessee Williams. It also presents the kinds of discussion questions used, as well as, the typical expressions of the inmate students.

PLOT

The play revolves around Laura, a withdrawn, young woman whom psychologists would classify as schizoid. Instead of spending her time in useful activity as most women of her class would she sits around home playing with little glass animals, the Glass Menagerie, and listens to old phonograph records left behind by her irresponsible father who deserted the family while Laura and her brother, Tom, were young children. Tom, too, is far from being a well adjusted young man. Although he manages to maintain a job, he fancies himself to be a poet and spends his evenings dreaming his life away in movies.

Amanda, the mother, is probably the most realistic in this family group as she is desperately trying to get the children to acquire a livelihood and eventually to marry and found families. But, she too, having been hurt by her deserting husband, escapes all too often into the pleasant memories of her girlhood and spends her energies directing every act of her children to the point that she becomes unbearable.

The play is nothing but an episode. It depicts Amanda's frantic try to bring a young man, a potential suitor for Laura, to the house by working through Tom. When she finally triumphs and succeeds in getting Tom to invite a fellow worker for dinner, the gala affair to which she attached unrealistic great hopes turns out to be a failure. The badly disillusioned mother now visits her fury on Tom for not knowing more of the affairs of the man. Tom, in turn, used this last row as an excuse for deserting the family as his father had done before him. This is all there is to the play.

DISCUSSION

Discussions were spent by the inmates usually analyzing the characters of Laura, Tom, Amanda, and Jim. They listed Laura as a most pathetic vision of inferiority feelings engendered by a physical defect, her father's desertion and the mother's inept handling of her problem. This usually brought on a discussion of what the mother might have done to help her, such as leading her to discover some particularly strong qualities with the view of fortifying those and giving Laura a feeling explored with it etiology and the various possible remedies.

Tom was characterized as being the product of his father's desertion on the one hand, and of too much mother, on the other. Now the question of the irresponsible father was raised. What makes people run away from the responsibilities and obligations of marriage? Was there anything wrong with the way people approach the problem of getting married? At this point the film "Marriage and Divorce" was utilized to further stimulate questions. At this point, philosophical questions were usually entered into such as: Why shouldn't an individual be permitted to escape from an unagreeable situation? Why should society disapprove? It was hoped that the inmates would come to the conclusion that society would be in a bad way if people were permitted to escape unpunished. This opened the doors to still more fundamental queries, such as: What was the purpose of the state? What was the purpose of existence: Why should one promote the cause of society?

There was sympathy expressed for Amanda who reminded some of their own mothers. Some wondered if she were not better even with her interfering, domineering ways than those mothers who manifested no interest whatever in their children. Several members of the group were acquainted with this kind of situation. This again raised the question of what satisfactory parents might be like.

This is but a small sample of the material brought forth in group therapy sessions by the reading and discussion of this play. However, this example does give some idea of what might be accomplished by this method. There is no doubt that it is a most fruitful approach to the treatment both of the socially and emotionally maladjusted individual.

UNIT 2  
Lesson 8

Purposes: (Biology)

1. To assist students to acquire further knowledge of the inter-relationship between animal life and environment.
2. To help develop skill in scientific thinking, such as, the ability to distinguish fact from inference.
3. To help inculcate the scientific attitude, which includes:
  - A. Willingness to suspend judgment when evidence is lacking.
  - B. Eagerness to search out the evidence on which opinion must rest.
  - C. Respect for the views of others, however different they may be, provided they rest on a body of fact or reasoning.
4. To help the pupil understand how biological knowledge may be used in improving our social and economic organization, nonhuman as well as human.

Skills to be developed by pupil:

1. Learn to read scientific material
  - A. Pupils will be taught to search first for the chief idea and then for the supporting ideas or facts.
  - B. Their work is discussed in class so that all may learn how to do this better.
  - C. Opportunity for practice is afforded so that the proper procedures become habitual.
2. Learn to observe and to discuss biological concepts.

Concepts to be Developed:

1. To plan the use of human resources wisely we must first study ecology, which is the physical relationships of organisms to each other and their relationships to all the other parts of their environment.
2. An organism's environment is far more complex than we would at first suspect.
3. Because of the many factors affecting the growth of each species the growth of each species its growth is restricted to certain localities and so communities arise, each with its own dominant patterns.
4. These communities change as the environment changes and as other organisms invade them.
5. Life on the infrahuman level is a process of "adjust or perish," of defending the species from the biotic community, as well as, the physical environment.
6. Life on the human biological level is also a process of adjustment and of defending the species. Example: The role of the skin and blood in obviating the invasion of pathogenic microbes.

Purposes: (Bibliotherapy)

1. To assist students to realize the continuity of the ecological struggle between infrahuman species and man.
2. To help students obtain insight into the relationship between himself and his environment.
3. To help students acquire increased acceptance of self and desire to change to more socially acceptable behavior.
4. To assist the students to realize what important behavior mechanisms he is using to protect the inviolacy of his self image.
5. To help students obtain insight into the number and type of false concepts which may be present.

Skills to be Developed by Student:

1. Same as in part I (i.e.) to read, observe and discuss bibliotherapy material with increased facility.
2. A greater facility and flexibility at utilizing rational rather than emotive reactions to problems.
3. Increased ability to get along with fellow inmates in and out of the classroom.
4. Increased participation and maintaining of spontaneity in classroom sub-groups and committee participation.

Concepts to be Developed:

1. Life on the human psychological level is also a process of adjustment and of defending the species.
2. Just as the reticuloendothelial system protects and maintains biological constancy, so the cerebral reticuloendothelial system protects and maintains psychological constancy.
3. The behavior patterns utilized to protect the self concept are largely inveterate and results in the use of defense mechanisms.
4. The inveterate ideas we consistently tell ourselves determines our perceptions and behavior.
5. Environment not only determines life on the biological level but also life on the psychological level.

Material to be Used: (Biology and Bibliotherapy)

1. Opaque Projector.
2. Motion Picture Projector.
3. Collection of pictures showing a variety of plant and animal communities.
4. Film: A Strand Breaks.
5. Film: The Trouble Maker.
6. Books:
  - Smith: Exploring Biology, pp. 448-455, 602-617.
  - Otto: Modern Biology, pp. 660-664, 667-669.
  - Hardin: Biology: Its Human Implications, p. 418. (Mimeographed)
  - Sorenson: Psychology for Living, pp. 238-242. (Mimeographed)

- Rosenzweig: Personality and the Behavior Disorders, pp. 379-380, 382-384. (Mimeographed)  
 Thorpe: Psychology of Mental Health, p. 337. (Mimeographed)  
 Cuber: Sociology: A Synopsis of Principles, pp. 294-296. (Mimeographed)

7. Periodicals:

- McKittrick: "Mechanics of Species Survival," Natural History, October, 1961. pp. 46-51. (Mimeographed)  
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 Parkhurst: "My Road to Crime; by a Young Hoodlum," Saturday Evening Post, March 21, 1959. pp. 23-25. (Mimeographed)

Procedures: (Biology)

1. Brief review of food chain.
2. General discussion of environment, and the formulation of a definition of ecology--show pictures of environmental communities on opaque projector.
3. Read:
  - A. Modern Biology, pp. 660-664, 667-669.
  - B. Biol. Implications, p. 418.
  - C. Explor. Biology, pp. 602-617.
  - D. McKittrick, "Mechanics of Species Survival."
4. Answer in notebook and discuss questions: 3, 5, and 6 page 671 in Modern Biology. Most importantly the student must grasp the importance of the intra- and interrelationships between the biotic community, physical environment and the ecosystem.
5. Film: A Strand Breaks (15 min.) This particular film will trace the consequences of a state of imbalance in nature between both kingdoms. Students shall be required to list number and kind of imbalances in nature present and the techniques of adjustment used to survive and reproduce.  
 Leading question: What techniques does man use to adjust to his environment at the more biological level? Discuss.
6. Read:
  - A. Exploring Biology. pp. 448-455.
  - B. "Discover Clue Concerning White Blood Cell Function."  
 The concept of the function of the reticuloendothelial system as an adjustment technique utilized by infrahuminal animals and man must be introduced to provide for a transition to more therapy oriented emphasis. Also, the role of the ecosystem in producing anti-social behavior should be adroitly inculcated.

Procedures: (Bibliotherapy)

Class discussion will have already approached the topics of family and community interaction but more on a biological and impersonal level. Also, the topic of body defense mechanisms such as blood, skin, and autonomic reflexes will have been inculcated into the learning situation. The task now becomes one of directing the student's attention to the more complex mechanisms used by man to protect self, family, and community.

1. Question: What techniques does man use to adjust to his environment on a more psychological level?
2. Read:
  - A. Person, and Behavior Disorders, pp. 379-380, 382-384.
  - B. Psychology for Living, pp. 238-242.
  - C. Sociology: pp. 294-296.
  - D. Parkhurst: "My Road to Crime; by a Young Hoodlum."
3. Discuss review questions: 4, 6, 7, and 11 pages 244-245 in Psych. for Living. During and after the discussion of these questions, particularly question 11, the teacher will attempt to compile a list of statements expressed by the students which are irrational, indicative of delinquency tendencies or otherwise incorrect. During the discussion the teacher will bring up the statements before the entire class and obtain a compendium of opinion. The inadequacies of the expressions will then be pointed out.
4. Film:
 

The Trouble Maker: (12 min.) This film is the story of a boy who turns troublemaker as a means of satisfying his own needs. Designed to show the inter-action between the troublemaker, his peer group, and the laws which protect society. Students are required to list the undesirable methods which were used to meet the press of needs, as well as, possible alternative means. The teacher must seek to make the student realize that although there are inadequacies in the law, yet society must have rules to protect its stability and homeostatic balance. This is a justifiable conclusion based on previous learning in the classroom which stated that all life forms must make an adjustment in order to satisfy individual needs and yet exist in a symbiotic relationship. Students must realize the strengths, as well as, weaknesses in their expressed opinions as in previous discussions.
5. Summary: Integrating biological and psychological aspects of the lesson.