1960-8

A Study of the Effectiveness of Bibliotherapy to Effect a Change of Attitudes as Measured Statistically

June Gracey Whiteford
Brigham Young University - Provo

Follow this and additional works at: https://scholarsarchive.byu.edu/etd

Part of the Education Commons

BYU ScholarsArchive Citation
Whiteford, June Gracey, "A Study of the Effectiveness of Bibliotherapy to Effect a Change of Attitudes as Measured Statistically" (1960). Theses and Dissertations. 8679.
https://scholarsarchive.byu.edu/etd/8679

This Thesis is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact ellen_amatangelo@byu.edu.
A STUDY OF THE EFFECTIVENESS OF BIBLIOTHERAPY
TO EFFECT A CHANGE OF ATTITUDES AS MEASURED STATISTICALLY

A Thesis
Presented to the
College of Education
Department of Educational Research & Services
Brigham Young University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
June Gracey Whiteford
August, 1960
This thesis, by June Gracey Whitesford, is accepted in its present form by the Department of Educational Research and Services of Brigham Young University as satisfying the thesis requirement for the degree of Master of Arts.

Chairman, Advisory Committee

Member, Advisory Committee

Chairman, Major Department

Typed by Vera Hales.
ACKNOWLEDGEMENTS

Heartfelt thanks is herein expressed to Dr. Clinton Larson for his advice and encouragement during the writing of this thesis, but above all, for his belief in the worthiness of the project. Sincere gratitude goes also to Dr. Mary Krider, Dr. Robert Egbert and Dr. Lyman Tyler for their help, willingness, evaluation and advice.

Loving acknowledgement is made of the debt I owe my husband and family for their understanding, active participation and support, without which I would never have completed the task.
## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. A.</td>
<td>DEFINITION OF TERMS</td>
</tr>
<tr>
<td>1.</td>
<td>Definition of Bibliotherapy</td>
</tr>
<tr>
<td>2.</td>
<td>Definition of Bibliotherapy Process</td>
</tr>
<tr>
<td>3.</td>
<td>Definition of Counseling Orientation for Study</td>
</tr>
<tr>
<td>4.</td>
<td>Definition of Literature Used</td>
</tr>
<tr>
<td>B.</td>
<td>STATEMENT OF PURPOSE OF STUDY</td>
</tr>
<tr>
<td>II. A.</td>
<td>RESEARCH DESIGN</td>
</tr>
<tr>
<td>1.</td>
<td>Statement of Study and Fields of Study</td>
</tr>
<tr>
<td>2.</td>
<td>Statement of Problem:</td>
</tr>
<tr>
<td>a.</td>
<td>Statement of corollaries in:</td>
</tr>
<tr>
<td>(1)</td>
<td>Education</td>
</tr>
<tr>
<td>(2)</td>
<td>Guidance</td>
</tr>
<tr>
<td>b.</td>
<td>Statement of Source of Body of Knowledge</td>
</tr>
<tr>
<td>3.</td>
<td>Statistical Design</td>
</tr>
<tr>
<td>4.</td>
<td>Statistical Procedure</td>
</tr>
<tr>
<td>B.</td>
<td>RELATED STUDIES AND RESEARCH</td>
</tr>
<tr>
<td>1.</td>
<td>Reading</td>
</tr>
<tr>
<td>2.</td>
<td>Medical</td>
</tr>
<tr>
<td>3.</td>
<td>Educational</td>
</tr>
<tr>
<td>III.</td>
<td>QUALITIES OF LITERATURE WHICH MAY BE MADE AVAILABLE ARE CLASSED AS</td>
</tr>
<tr>
<td>a.</td>
<td>Emotional</td>
</tr>
<tr>
<td>b.</td>
<td>Cultural</td>
</tr>
<tr>
<td>c.</td>
<td>Social</td>
</tr>
<tr>
<td>IV. A.</td>
<td>RESULTS</td>
</tr>
<tr>
<td>B.</td>
<td>CONCLUSIONS</td>
</tr>
<tr>
<td>1.</td>
<td>In the Study</td>
</tr>
<tr>
<td>2.</td>
<td>In Education</td>
</tr>
<tr>
<td>3.</td>
<td>In Guidance</td>
</tr>
<tr>
<td>C.</td>
<td>IMPLICATIONS</td>
</tr>
<tr>
<td>1.</td>
<td>For Testing</td>
</tr>
<tr>
<td>2.</td>
<td>For Therapy</td>
</tr>
<tr>
<td>3.</td>
<td>For Education</td>
</tr>
</tbody>
</table>
CHAPTER I

THE DEFINITION OF TERMS

AND

STATEMENT OF THE PURPOSE OF THE STUDY

The premise underlying bibliotherapy is as old as the ancient Greek inscription over the library portal at Thebes which reads "The Healing Place of the Soul"; it is as modern as today's books which have such titles as Peace of Mind, Love versus Hate, Man For Himself, etc. -- all of which have a bearing on modern man's attempt to learn to live together. That man must find a peaceful answer to the problems of existing and competing with each other is of nearly unanimous acceptance. That such a solution must be based on self-understanding, (succinctly defined as Socrates' basic premise) is deduced from the contemporary psychological principle which holds that in order to develop the out-going attitude necessary for successful social and business relationships, to be able to accept and tolerate others; it is first necessary to be able to understand, to accept, and to tolerate one's self.

Most of the great systems of philosophy, many of the greatest of writers, have already come to this simple -- yet most infinitely complex -- conclusion. It is the tools with which to carry out this understanding that has already been
reached, which are lacking to put these basic concepts in operation.

Definitions of Bibliotherapy

Bibliotherapy is one of such needed tools which have been developed from the behavioral sciences. It is largely untested in guidance use, yet it would seem from case studies and medical use to have potentiality. Bibliotherapy is the process whereby an attempt is made to utilize the insights into human motivation, and the exploration and declaration of the validity of the truths which have been influential in the intellectual growth of the human race, as they are presented in books. These patterns and ideas are used to try to effect an efficient social, emotional, and mental adjustment to the problems of a modern world by those who are facing its complications.

References to the moral power of literature are even more ancient than that made by Sir Phillip Sidney in his

Apology for Poetrie

Philosophy presents precepts; history gives examples, but poetry does both and is of greater incentive to the virtuous action than either of them.¹

The belief that reading may affect an individual's emotions, attitudes, and subsequent behavior is as old as the art of reading itself.

Modern authorities such as Dr. William C. Menninger,  

¹Sir Phillip Sidney, Apology for Poetrie, (ca. 1580; published, 1959).
who wrote a book on his experiences with bibliotherapy as a subsidiary method of treatment of adult mental patients, states that books may be selected to meet the therapeutic needs of readers. He regards these needs as educational, recreational, and cultural with the vital necessity of identification within the social-group pattern. Menninger feels that the specific value of bibliotherapy arises from the process in which the reader identifies himself with some particular character and thereby may abreact his own emotional difficulties and experiences. Dr. Fauman holds that reading not only helps in emotional adjustment but also influences physical disorders which are manifestations of the mind. Bernard Berman, in his discussion of bibliotherapy, branches out into the use which can be made of it in the teaching profession and believes that moral illiteracy can best be fought by the weapons of literature and the humanities.

One of the earliest pioneers in the attempt to discuss and utilize bibliotherapy along scientific lines was Dom Thomas Verner Moore. In his book Personal Mental Hygiene, he states that

"Any attempt at bibliotherapy is based on the fact that the mind stores ideals and principles of conduct, which in due season may have a great deal to do with conduct because the mind harbours principles, the truth of which are recognized, but which are not now accepted as determinants of conduct, due to psychological restrictions and false ideals. These, therefore, act as a leavening agent
and may, in time, produce conduct changes.  

Possession, then, of correct knowledge will not bring about the desired correct behavior. Even extensive first-hand experience will not bring about the desired changes without being accompanied by revised perceptions. Re-education, or revised perceptions, is a process calling for several approaches; one of which is the acceptance of a new set of values from new concepts, which may be acquired through the teachings of literature, of books. All of these "experiences" must be properly organized into an individual system of concepts and values.

**BIBLIOThERAPEUTIC PROCESS**

As a technique, bibliotherapy attempts to use the influence of the characters, ideas, situations, and information in literature as a means of presenting patterns and standards of behavior and evaluation. It sometimes is an attempt to allow abreaction of emotional difficulties to enable clients to adjust personal concepts and values which control action.

The practical approach to bibliotherapy involves some form of determining the emotional or mental problem, and selection of suitable reading material in which the problem is discussed, is present in the personality or difficulties of one of the characters, or is the dominant

---

theme. There are subsequent discussions of the selection in its inferred and personal ramifications with the coun-
seilor. Finally, a change is possible in the client's problem situation through a change in concepts; through an abstraction of emotions through identification; through a deeper insight into the problem brought about by vicarious experience; and/or a rearranging of patterns of concepts, values, or actions.¹

A diagnostic test or series of them, with validated norms which would allow for correlated results, would seem to be indicated in a statistical study. The California Personality Survey and the Bell Personality Inventory were chosen. Prior to the start of testing or bibliotherapy, a list of books for student selection, chosen and arranged for the bearing of characters, situation, or plot on the eleven classifications of the California Personality Survey, would have to be drawn up, evaluated, annotated for student use, and provided in workable form. Time for individual interviews, in almost all cases -- a series of them, would have to be made available to the counselee by the counselor. These interviews were to be for the purpose of establishing a sense of rapport, allowing the counselor to make a personal observation of the individual indications shown on the testing profile, and providing the opportunity for

¹Abstracted from the process as explained by David H. Russell.
discussion, by the pupil with the counselor, of the material selected. Other than presenting the list of books, with such direction as the connotations might have on student choice, the mode of counseling procedure would operate within the self-adjustive orientation. Only those students whose self-motivation leads them to choose books will be included in the study. The entire class population will be tested; not all test results will be able to be utilized for the above reason.

**DEFINITION OF TERMS**

**Counseling Theory Orientation**

Therapy is the prime consideration of the counselor in his relationship with the counselee, during bibliotherapy. The self-adjustive theory is the most provocative and fruitful orientation for bibliotherapy provided that the counselor is moving (as the center group which advocate this theory has moved) toward a more objective, eclectic-tinged rationale, which allows linking observable antecedent events with subsequent observable behavior of the client.

If we stay within the central hypothesis that the client has the capacity to solve his own problem; that he is able to perceive his own conceptual field; and if we add to this central principle an attempt to reconcile the internal and external events by using psychological measurements,
devices and research, then this most recent trend would seem to be moving in the direction of reconsidering those few elements of the non-directional approach which were most objectionable to those counselors and psychologists who were not of the strict, response-reflexion restricted, client-centered school.

As to the "field" for the operation of bibliotherapy, this "looking" of the client-centered theorists toward the "communications focus" advocates, which results in the self-adjustive approach, would seem to provide the client with an opportunity to observe the link between the perception of his fallacies -- which are implicit between the existence of his self-concept, and those perceived facts which will not coexist with that self-concept -- and the modification of his concepts and his observable behavior. Such perception is one of the objectives of bibliotherapy. The self-theory would look to be the most realistic approach as regards experience, observation and theory. Its inclusion of objective forms of measurement in the present trend is commendable, and would appear to be necessary both for scientific theory construction, and a more communicative rationale for counseling practice and therapy. It is considered opinion that the tendency of the self-adjustive

---

1 This question of devices and other aspects of bibliotherapy were discussed with Dr. Arbuckle personally when he addressed a meeting of counselors in Salt Lake in 1959.

2 Carl Rogers, et al.
viewpoint of counseling will be the one which will admit, most readily, the admission of new data, new techniques, and could be the melding point of the best of many approaches.

Quoting directly from the writing of Shoestrom and Brammer on the self-adjustive approach, we find that they define it as:

By this it is meant that counseling operates from a consistent philosophical frame of reference - a frame of reference which says, in effect, "All the activities of the counseling process must be directed toward one consistent goal: the self-direction and self-realization of the client". This means, furthermore, that all counseling activities are facilitated by a permissive, accepting, client-centered relationship. Within this frame of reference, however, it is not only possible but desirable to use certain informational devices (records, tests, information, etc.) to assist the client in perceiving problems concerned with client goals. In other words, devices are used but only for the ultimate goal of a client self-realization...

Literature of High Standards

The use of the term "literature of high standards" means that the material used in the study for bibliotherapy purposes will be creative literary material with aesthetic standards, which have in common the fact that they are reality-based or life-based illusions -- "literature of power". Great literature is the faithful portrayal of the human mind as it appears to a sensitive, discerning, perceptive author. Noted psychiatrists and psychologists state

---

that great art and artists (which includes writers) are
enpenetrating portayers of human nature.\footnote{Karl A. Menninger, M. D., The Human Mind. New York: Knopf, 1945. p. 517.} There have been
some excellent writings on the use of books and bibliography
in psychiatry.\footnote{Thomas V. Moore, M. D., "Bibliotherapy in Psychiatric Practice," Current Therapies of Personality. New York: Grune and Stratton, 1943.} The didactic, informative type of writing
which is sometimes indicated for use in bibliotherapy will
not be utilized in this study.

STATEMENT OF PURPOSE OF STUDY

It is not the purpose of this study to defend the
existing uses and views of bibliotherapy. No defense is
necessary. This has been done by able writers before, and
every teacher and librarian has known the effects of placing
the "right book in the hands of the right person at the right
time". Teachers have always used reading and books to exert
an influence on their pupils. As teachers, we have been
aware of the potency of bibliotherapy, but we have been con-
tent to know and state that it is so. We have not attempted
to prove it from a socio-scientific, statistical point of
view.

It is possible that in this age-old process of using
literature to influence people, three new uses may become
possible by utilizing the results of such a statistical
approach to indicate the way to more research to adapt
bibliotherapy to guidance and class use:—

1. Literature may be useful as a therapeutic tool in guidance.

2. Literature may be used as a diagnostic tool in guidance.

3. The formative and therapeutic values inherent in literature may become the basic premise from which and for which literature is taught, rather than for aesthetic appreciation only.

Many studies have been done on the effect of reading; many studies have been done on the benefits to be derived from reading classical literature; but, as far as it is possible to ascertain, this is the first attempt to measure the effect of literature on the individual values and attitudes derived from concepts which control personal and social adjustment with a statistical method of evaluation.

The idea for such a statistical approach came from an article written by Dr. David H. Russell and Caroline Shrodes in which they stated that research work in the validation of the process of bibliotherapy was needed.¹

CHAPTER II

THE RESEARCH DESIGN AND RELATED STUDIES OR RESEARCH

This thesis is concerned with a study of the effectiveness of literature of high literary standards used as bibliotherapy with high school students to effect a change of personal and/or social attitudes as evaluated by statistical measures. The study lies in the major field of guidance -- educational research and services -- and in the minor fields of English and library science.

The problem is to conduct a study into educational and/or guidance values which might be derived from utilizing reading material of aesthetic-literary and high moral standards to form an experimental resource for use with high school students, of average or above average intellectual ability, who are experiencing difficulty in forming acceptable social, personal, or emotional attitudes, as measured by objective tests. Such material would be used in a technique called bibliotherapy, with such students, under research-controlled conditions, for the purpose of observing whether a change would occur in the above-mentioned attitudes from the use of bibliotherapy. The results, as measured by test data, would indicate whether any change in attitudes took place to a statistically significant level.

If the pilot study produces results that are
significant, then the corollaries could be:

1. Attitudes are changed by a change in values formed from a change in the individual's concepts of the relationships which are involved in the change.¹

2. Then, if the attitudes are changed by the use of bibliotherapy to a significant degree, it must be supposed that bibliotherapy can change concepts to a significant degree also.

3. If concepts can be changed by bibliotherapy, then in the new "individualized" approach to education which is built on the conceptual approach, bibliotherapy could become a valuable teaching device, operating at the core of the individual approach.

4. The individualized approach presupposes students to be operating at individual learning rates, motivated by individual realization of the application of the concepts which are learned to self-needs and self-goals.

5. If bibliotherapy is the utilization of the patterns for relationships within literature, and if the utilization of such patterns is able to produce a significant change in concepts for

¹Studies and writings of Dean Asahel Woodruff, College of Education, Brigham Young University, and the conceptual study made by the college are basis for statement.
social and personal adjustments in relationships, then, in the language arts field of the curriculum, it is possible that the teaching approach might be changed to include teaching for personal values as well as for aesthetic values.

In guidance, if the study produces results that are statistically significant, then the corollaries could be:

1. If neurosis is due to the experiencing of culturally determined difficulties, and each culture determines its norms, a neurosis must be viewed sociologically as well as psychologically.

2. Then, if a person is neurotic when he deviates far enough from the pattern which is common to his culture, and when his fears and defenses against this deviate in quality and quantity from those of the culture; from a cultural viewpoint, character formation is important, because it is character (i.e., concepts formation) which influences human behavior.¹

3. Character-disturbed symptoms are manifested in disturbed attitudes.

4. If attitudes can be changed by changed concepts, and concepts can be changed by the use of

bibliotherapy (which is the process of using the reflected social and personal patterns of society which are in literature), and if we agree with Horney (and Fromm and Plato) that neurosis is due to the experiencing of culturally determined difficulties due to deviant pattern formation,¹

6. then, bibliotherapy may have a determinate bearing on pattern formation, and as such could be considered a useful therapeutic tool or device in guidance.

(Originally, there was a third corollary inserted here, which dealt with the reasoning forming the background for advocating a second possible use for bibliotherapy as a guidance tool. That statement was that bibliotherapy could be used as a projective technique such as the Thematic Apperception Test and the Rorschach Test. Since then, however, a doctoral dissertation by Shrodes, which deals with this suggestion at length, has come to my knowledge; therefore, her findings will be quoted from in the chapter dealing with implications for the future.)²


²Caroline Shrodes, "Bibliotherapy: A Theoretical and Clinical Study", (Unpublished Doctor's dissertation, University of California, 1949.)
Body of Knowledge Source

The body of knowledge concerning the nature of bibliotherapy, its techniques, and the relatedness in use to other aspects of the field of therapy was taken mainly from the noted writers of the field: Dr. David L. Russell (who gave the study the benefit of his advice concerning future implications), Dom Thomas Venner Moore, Dr. Carolyn Shrodes, Alice Bryant, Dr. Kenneth Appel and Drs. Karl and William Menninger. Many of the other writers in the field contributed significant ideas. (The compilation of the bibliography of this thesis represents a contribution of sorts, to the field, since it was garnered bit by bit from myriad sources.) The study is founded on that branch of guidance which is psychotherapy and draws heavily on ideas from Dr. Francis P. Robinson (who accorded the honor of reading and discussing portions of this paper, Dr. Eric Fromm, Dr. Karen Horney, and Dr. Harry Stack Sullivan.

Statistical Design and Procedure

As has been stated above, statements concerning the power of literature are numerous, but an attempt to measure that effect statistically is, I believe, unique. The questions which must be answered in setting up the study are:

1. Why stipulate aesthetic literature?
2. Can attitudes be measured reliably?
3. What device can check the validity of the test results?
4. What is the purpose of selecting students of average and above average ability for inclusion in the study population?
5. What effect does the degree of student difficulty have on the research pattern?
6. What are the conditions which control the research?
7. What statistical approach will be utilized to collect and evaluate the data?

The practical problem of preparing the materials to be used in the study must also be considered.

Use of Aesthetic Literature

There are several levels of ability to absorb the benefits which bibliotherapy has to offer. The more mature a reader is, the greater the degree of use of reading materials to conform to his needs. Mental hygiene literature appears to be most needed by the reader least able to profit from it and understand it. It is unrealistic to hope that such material will change the attitudes of disturbed, or severely neurotic individuals. (This may, in part, answer the objection that some guidance persons have concerning bibliotherapy, because, by and large, they have confused hygienic literature with "imaginative" literature, or "literature of power".) Books of mental hygiene may be productive of insight for growth and maturing, which make it possible for the individual to understand and produce; but insight can't be forced until growth has reached the stage of readiness. Imaginative literature could lead to a vicarious experience, which would give that much more maturity to the reader, and enable him to understand. However, there is a caution which must be sounded. Bibliotherapy is a two-edged sword. It should be remembered that the books
recommended must be realistic and related to the factual in life, and that they should present situations that could, or do exist. They must not be escape-literature, nor may the values or standards be such as are questionable. It is for this reason that the phrase "aesthetic literary material of high moral standards as experimental resource" was used in the statement of the problem. It is a highly important stipulation which highlights the necessity for interviews with the counselor or teacher in administering bibliotherapy just as in any therapeutic situation. Time will be arranged for such numbers of interview series as the students indicate need and desire.

Tests which measure attitudes are not as reliable, as a group, as other forms of objective tests. The recently devised "Q technique" is thought to be more reliable than the group tests which measure attitudes, but for study results which are to be measured statistically, and for a population which is comparatively large for the amount of interviewing which is to be done, it is deemed advisable to utilize the California Personality Survey. The test is divided into eleven classifications within two main divisions -- personal symptoms and social symptoms. This arrangement also allows for greater precision in and larger choice of literary materials to be used for bibliotherapy.

To check the results obtained from the Survey, the

---

1 Abstracted from Rosenblatt, Literature as Exploration.
the Bell Personality Inventory will be employed. The Inventory measures a similar range of attitudes but with an inverse raw score scale. No attempt will be made to use the Minnesota Multiphasic test which is primarily on the adult level and identifies abnormal tendencies in the individual personality. For these reasons, it will not be used with a high school population.

The Minnesota Multiphasic, now the unquestioned leader in the field of so-called "objective" personality tests, is a far more sophisticated instrument of this type than some of its precursors. Its aim is to identify certain psycho-pathological configurations and well-known syndromes.1

The test population itself consisted of students of eleventh and ninth grades enrolled in honors English classes at the Brigham Young University Laboratory School. The class population is 60; the study population 52. Some do not wish to participate. The nature of the study group included in the honors class, as well as the desirability of above-average reading skills and discussion ability, stipulated the inclusion of the term "above average" plus the fact that the writer is engaged in teaching the gifted. This is an area in which experimentation is needed both in the guidance office and in the classroom.

...the average, or above average, mildly disturbed person outside the clinic, in the school situation, is of the group for whom the least has been done, bibliotherapeutically. The importance of this technique in schools and colleges, where there is a

natural opportunity for recommending books, and discussing them in the guidance centers and the classrooms has apparently been overlooked.\footnote{Alice I. Bryan, "Can There Be a Science of Bibliotherapy?", \textit{Library Journal}, 64:773-76, October, 1939.}

The students are to be tested on the Scale and the Inventory for the total score of personality attitudes and the California Aptitude Test Battery for verbal scholastic-skill score. They are to be classified as to class, age in months, sex, verbal skills, and personality test total scores, and then matched in corresponding pairs according to the data. The first of the matched pairs are to be put into the experimental group and the other in the control group. Tests are to be given before and after the administration of bibliotherapy. Both groups are to believe that they are receiving bibliotherapy; only the experimental group is to have it. Equal time and attention will be made available to both groups. Books for the control group are to be selected at random from a list. Books for the experimental group are to be selected from the same list but carefully chosen for and correlated with the eleven sections of the California Personality Survey. They are carefully annotated as to the plot, the characters, and the situation of each book in connotation with the section of the test with which they are to be used. Students will be aware of the results of the preliminary test, which results will be used when the book is selected. The approach, which was
explained in Chapter I, is best illustrated by the explanation of the essence of the self-adjustive theory from Shostrom and Brammer, and will be kept in mind during all the interviews.

...Sometimes tests and information assist toward the solution of one's problems, and sometimes they don't; if you feel that you would like this assistance, it can be arranged.¹

Appel says that the patient should take the initiative in the selection of books and ascertain whether or not such a book covering his particular problem is available. This is where the counselor may function.² Auerbach deals with this same problem when he says that the reader brings to his reading the complex reactions and biases which are based on his needs; he will respond in line with his needs to certain parts of what he reads, either positively or negatively, and close his mind to others. A chain of feeling is set off that goes into his own personality, and which is not indicated in the character or book involved. This reaffirms the contention that bibliotherapy is more eclectic than directive in viewpoint; since, the client reacts to what he chooses and needs and is not necessarily conscious of what the counselor or teacher views as vital in the selections.

The total raw scores of the experimental and control groups on the Survey and Inventory primary tests will be

¹Shostrom loc. cit.
²Appel loc. cit.
A small difference in the total of the two groups will indicate the accuracy in matching the pairs. The mean total scores of each group will be compared in the preliminary and secondary test -- the control group score one with control group score two, etc. A direct-difference t-ratio will be the statistical device used to measure significance; since the t-ratio is a comparison of two groups of measured data to the one per cent for significance.

RELATED STUDIES AND RESEARCH

A superb and thorough summary of the literature in the field of bibliotherapy was made by Russell and Schrodes in 1950. Russell subdivided it into the classification of studies and writing in the medical field, library field, and teaching field. At that time, the use of the technique was confined largely to medical use, moderate interest in libraries, and scanty application in the educational and language arts field. In the last ten years, more doctoral dissertations and master's thesis have been done on aspects of bibliotherapy, a very few more bibliographies compiled, more work done on the nature of bibliotherapy, but (except for Bryant, Russell, Rosenblatt and Schrodes) the work on an experimental approach is still nearly as meager as Russell dubbed it then. Since his report was so concise and complete that any attempt to summarize the literature of the field sounds like an abstraction from his work, that liberty will be taken. Recent additions, so far as the writer is aware
of them, which are significant will be added to the categories.

Reading:

1. Gates did a study in reading difficulties.
2. Downey did a study of the kinds of personalities who read.
3. Carleson studied the effect of reading on Negroes.
4. Rosenblatt's exploratory work contains ideas fundamental to a theory of bibliotherapy.
5. Sargent includes references to relationship of personality to drama and storytelling.
6. Grey summarized studies dealing with effects of reading on information, beliefs, attitudes, and morals.
7. Loban did a comparison of responses to literature.
8. Waples did a study of the influences of reading on people.
9. Crossen shows influence of prejudice on reading ability.
10. The Sisters of Charity, Mary Agnes, Marie Lucille, and Lorang have done some sound experimenting with the effect of reading on high school and elementary children.
11. Smith reviewed the research on personal and social influences of reading.
12. Childs analyzed textbooks for social ideas and stereotypes.

Medical:

1. Schenk has described the Menninger Foundation project.
2. Menninger described case studies using bibliotherapy.
3. United States Veterans Hospitals report is available.
4. Bradley and Bosquet suggested four therapeutic uses.
5. Gottschalk believes that mild disturbances are more apt to be helped than severe ones.
6. Gannon disagrees and thinks reading has sedative effect.
7. Smith and Tynesfort stress books with mental hygiene contents.
8. Moore presents data which gives us a glimpse of a technique of great therapeutic importance.
Educational:

1. Quint points out values of reading in reality contact.
2. Shrodes, Van Gundy, Husband and Strode collected literature for psychological and sociological insights.
3. Lind study of the four main values of literature.
4. Russell studies memories of values of books read as child.
5. Kircher emphasises the dynamic character of reading.
6. Kircher also gives an annotated bibliography.
7. Wenzel and Sample analyzed children's stories.
8. Sargent gave values of psychodrama.
10. Tyson made one of the first validation attempts.
11. Bryant used creative literature instead of didactic. He used the criteria for using bibliotherapy as a science.
12. A.C.E. reading ladder and lists for relationships.

Recent Additions (after 1950):

1. Appel included biblio with interpretive and neurotic therapy.
2. Bliss deals with mental health in teaching and learning.
3. Burkcon expansion of library services to meet needs.
4. Carleson the effect of literature on emotional maturity.
5. DeBoer relationships of literature and behavior.
6. Delaney bibliography on bibliotherapy - a good one.
8. Eno uses books for children from broken homes.
9. Fitzpatrick books used in the humanistic approach to education.
CHAPTER III

POSSIBLE VALUES OF USING SELECTIONS OF HIGH LITERARY

STANDARD AS A MEDIUM OF BIBLIO THERAPY

The approach to this chapter is not, as will be immediately discernible, one of scientific detachment. It is an attempt to evaluate literary effectiveness as it is related to bibliotherapy in concrete terms which, in spite of firm resolve, take faint metaphysical tinges. The nightingale refuses to cease wholly its singing.

It cannot be otherwise. Behind the facts of existence lie the reasons for existence; behind the reasons, the truths. We cannot discuss the nature of man in material terms alone. We could not discuss even his needs in such a limited frame of reference. So, too, a balanced discussion of the use of literature as a means of bibliotherapy must include a discussion of the cultural, emotional, and social facets of personality as well. The facets considered must flash from the attitude which prompted the ultimatum of Voltaire -- "I refuse to discuss any question with a man who refuses to define." -- to that attitude which has a quality termed by Meredith -- "the silvery laughter of the mind." The Gestalt concept of the nature of man is the point of view from which this study is approached.

As an example, those who are so absorbed in the
quantitative approach that music becomes mere sound -- not solace, beauty nor stimulation -- find that they have become like Darwin who confessed that he used to like Shakespeare, but that, in his preoccupation with logical analysis, he lost the basic quality of imagination and so found himself regarding Shakespeare as "dull". "All fables have their moral," wrote Thoreau, "but the innocent enjoy the story." Quixotically, could it not be possible that the studies called the "humanities" were called by that name because they also tend to humanize those who pursue them? Happiness is not so plentiful in this world that we can afford to lose even one of its sources. Similarly, we cannot afford to ignore any major aspect of the client's multi-sided personality in determining the effects literature is believed to bestow.

In order to deal with the aspects of adjustment through the use of the therapeutic or preventive effects of literature, it would be wise to adhere tenaciously to a basic premise. If literature is presumed to be able to help in individual adaptation, what precisely is it presumed to be able to do? The crux of the answer to this question lies in the approach taken, in the school of counseling thought which provides the modus operandi, and in the specific result which is desired for each individual. In

---

general use, there are certain results which we hope to be able to obtain by the use of books selected from the ranks of "good literature".

**Psychological Basis**

Rank is the psychologist whose theories provide some of the understandings implied in use of bibliotherapy.¹ Briefly (and probably oversimply), Rank's theory is that the birth experience is so traumatic that it takes the entire period of childhood to relieve or abreact the emotions engendered by this experience. Neurotic persons are those for whom the period of childhood is not sufficiently long for these emotions to be released. Maturity is measured by the degree to which these emotions are abreacted or can no longer cause emotional conflict.

How is it that the balanced personality is enabled to control, if not the tipping of the emotional plane, at least the reactions due to tilting too far? Largely by developing attitudes of mind, ideals, concepts, values, and principles. When these are established, there results a relative peace of emotional life, and reason controls conduct.²

Tranquility, or the absence of conflict, depends nearly as much on the satisfaction of spiritual and intellectual needs as it does upon material gratification.

---


Emerson states this *nuda veritas* in *Gifts*. The temporal exigencies are those which are directly physical, such as warmth, food, shelter, and those which are social. The needs of the intellect and of the spirit are cultural, emotional, and reverential.

It could be said that the emotional wants lay claim to an urgency secondary only to the creature requirements. The satisfaction -- or lack of it -- of these wants have a profound impact, in turn, upon the individual's ability to satisfy social and cultural demands. So, by paralogism, *circulus in probonde*, tranquility in individual or in society depends upon the degree of fulfillment of certain basic needs, as well as status of emotional maturity.

Literature makes available a source of recorded emotions and experiences instrumental in providing a conceptual background with which to understand these dominant needs. The hypothesis is that through the use of bibliotherapy techniques these concepts engendered by reading may enter the realm of individual thought, penetrate the understanding, and color individual values in the social and cultural attitudes and actions of the individual.

**Role of Concepts**

Such a change requires a vivid experience or insight.

resulting in the formation of new, re-evaluated, or additional concepts. "A concept is an habitual manner of thought organized through experience which exerts a directive influence on the individual's behavior toward all objects and situations to which it is related." It is such vivid, vicarious experience, stimulating enough to change patterns of thought, in which literature abounds.

He ate and drank the precious word;
His spirit grew robust.
He knew no more that he was poor
Nor that his frame was dust.
He danced along the dingy way
And this bequest of wings
Was but a book, What liberty
A loosened spirit brings!²

Writers over a wide span of time have recognized the efficacy of literature in this connection. Some of the earlier writers show a surprising modernity of thought when speaking of this subject.

...when, therefore, something exists in active, complete, potentiality, the extrinsic agent acts only by helping the intrinsic agent and by ministering to it those things by means of which it comes forth into actuality, just as a doctor in healing is a minister to nature which does the principal work...Knowledge, therefore, does pre-exist in the learner, not in purely passive potentiality, but in active potentiality. Otherwise, man could not by himself acquire knowledge.³

¹Moore, op.cit., p. 64.
The approach in English must be revamped to suit the students. Now in addition to pleasure, appreciation, and discerning judgment, we add cultivation of personal, social, spiritual insights, and... such concepts of personality modifications as will result in fulfillment of human wants in two ways -- exploration of the world of human relations and of the world of books -- to improve the quality of living in young people, plus giving them a knowledge of the nature of man and of the ways of growth... We stand today only at the beginning of a long road which leads to understanding of the techniques by which we create the insights, attitudes, and predispositions necessary for mental health and a civilized society. The research that we need in this area must be unsentimental, thorough, and unremitting.  

...there are great possibilities inherent in a sociological, psychological, anthropological approach to literature, examining the role of culture conflicts in the lives of youth, the ways in which literature can afford helpful insights into these conflicts and the mechanisms by which emotional patterns in fiction are transposed to the reader.

One of literature's greatest contributions to the adjustment of personality through the formation of attitudes from concepts could very well be the provision of additional opportunities for abreaction through vicarious experience. Often forms of experience are gained which could not be had at first hand. To live personally through some events might be dangerous, painful, difficult due to geographic distances, or economically impossible. Often the experience is also physically impossible. We cannot change the fact that we

---


live within the bounds of a definite period of time. Mentally, when we read, we can transport ourselves to the times of those who are "echoes from the dust". Reading takes us liter­ally into a past experience which we can reach in no other way. The value of such a journey is by no means insignifi­cant. "A great book is one that has a meaningful experience and continues to have meaning over a long period of time."¹

The reading of books, what is it but conversing with the wisest men in all ages, and countries, who there­by communicate to us their most deliberate thoughts, choicest notions, and best intentions couched in good expression?²

Where do we receive such wisdom, experience, learning, imagination, and personal charm? What delightful people we meet; what a dearth of good conversation if we should be forced to go without them and rely on living people to enliven our days with wit and humor?³

Alfred Knopf used to say that no man is truly edu­cated who does not know at least one civilization besides his own -- with its language and literature. Our culture is making strides in this ability to understand other milieu, for some school children speak in French and German now, when in the past, even the sage Emerson could read neither with ease. This concern with the media of expression of others (language, art, literature, etc.) could lend great


²Amis Duff, Requests of Wings (New York: Viking Press, 1944) p. 89.

understanding, not only of those who lived before us, but also of our global contemporaries. The great writers of literature have always had the *elan vital*—

...but they are the world's most exciting thinkers, each of them a one-man milestone in man's search for the good, the true, and the beautiful. Each of them learned from those who went before; each of them taught those who followed. Together, in the great conversation of the ages, they argued with each other, constructed and refined the human tradition we have inherited; the tradition we will continue to debate, construct, and refine as long as we wish to be free. They did not all agree with each other -- any more than we do -- but they realized the necessity of thinking about the important instead of the trivial. Their imperishable words are the most eloquent arguments ever to be made on every side of every great issue.¹

Aside from the aesthetic pleasure derived from poetry, from the therapeutic point of view in its singular contribution comes three additional benefits. Poetry is a literary form rich in sources of *vicarious experience*: experience which is of particular value because of poetry's demonstrated ability to draw the reader into the fictional life depicted. It is felt that only plays, biographies, and novels share this ability.²

Such *einfuehlung* as poetry draws from the reader is one of its contributions to the reader, for without empathy one is bound into a very limited world indeed.


²What a fissionable pile of human wisdom and experience waiting for a reading reaction!
...no thoughtful person can read good poetry without gaining a greater facility for understanding the workings of people's minds; the motives, passions, feelings of diverse individuals. In business, in the professions, in social and family life, we need such insight into the human heart and human motives without painful experience.¹

Empathy is one of the basic qualities required in a counselor, according to the leading exponent of the client-centered school.² Without empathy, the highest attainment of understanding is closed, the highest peak of personal development unsealed, for it leads to the third, and rarest, value derived from poetry -- insight -- into ourselves, and out of ourselves into others.

The ultimate level of understanding is silence. The greatest heights of poetry are not reached through words, but through vibrations continuing beyond the words. Many are deaf to this inaudible music. Poetry's words hack their way through the explicit, and lead us to the brink; he who can hear beyond, let him hear!³

Such perception and recognition of the Spirit of God about us is possible only to profound spirits, gifted with the powers of love, reverence, and insight...it may be inferred, therefore, that the true poet, and the truly religious man are one and the same, except in faculty of expression.⁴

Poetry used as bibliotherapy contributes to the making of an individual by himself in the light of his

¹William S. Learned, The Student and His Knowledge (Boston: Cambridge Press, 1947) p.5.
²Carl Rogers
⁴Thomas Carlyle, Essay on Richter
vision, his pondering and his insight as to the meaning of human life. It is, as Dewey says, a continuing reconstruc-
tion of experience, in the light of the potentialities and possibilities of the individual.

Social and Cultural Implications

Logically, such insight should lead to radical mod-
ification of thought, if not of behavior. In some instances,
both happen, but mere possession of knowledge does not imply behavioral metamorphosis. Such changes follow experience or insight, personal or secondary, only when accompanied by revised perceptions and values. Even delinquents have a sense of standards but lack an application of them to their own lives. At times, this is due, says Adler, to the fact that many people have "made no connection between the words they read in a book of passions and their own experiences".¹ In a previous chapter, we have mentioned the discussion be-
tween the client and the therapist, concerning the books read by the client, as one step in the bibliotherapy tech-
nique. The chapter on trends of research mentions Shrodes' work in testing reading discussion, as a counseling tech-
nique. The value of bibliotherapy is in the attempt to eliminate the flaw in the chain between experience, concept formation, and application.

If the carry-over is made, certain social results

are expected, although, as Waples protests, the values of reading have been proclaimed far more than they have been investigated. Following practical observation, however, acceptance of the theory that reading has a direct effect on character and action furnishes the motive for most propaganda, efforts to control the press, modern advertising, the furor about comic books, and biographical statements concerning the power of various books. It is well to remember that the course of action directed by a book may be permanent, or may result in actions transient in themselves, yet still provide experiences (better, concepts) of permanent value.

The argument in favor of the use of bibliotherapy in connection with literature as a social control runs: Differences varying from normal behavior are acquired. They are not (as yet) accounted for by personality differences. If personality characteristics are learned they can be unlearned, or changed, through new learning experiences as they were learned. Normal and abnormal attitudes are learned in the same way. Re-education, in the sense of changed behavior, tends to occur through a change in the culture concept of the individual. In regard to standards, the individual tends to accept the standards of the group. This means that he must anchor his conduct in something

\[1\] Douglas Waples et al, What Reading Does to People (Chicago: University of Chicago Press, 1940) p.15.

\[2\] Concerning this statement, more will follow in the next chapter covering statistics of the described experiment.
larger than himself -- something substantial, super-individual. Literature, by exhibiting patterns of conduct approved in the wider culture, or more moral culture than his own, may have the effect of supplying the substantial, the super-individual. Great literature is seldom pernicious; profound, fundamental truths are often dramatically displayed, fostering an idea of what social and moral action under specific conditions should, or could, be like. It enables the reader to see his own problem from another's point of view, which may or may not agree with his own, but which will enable him to see the consequences of certain actions and attitudes without suffering the pain or penalty in his own right. It has the additional advantage of being better than verbal instruction or persuasion, for the ideas are self-discovered in pristine freshness. "He who reads from duty reads with half a mind; the other half is concerned with making the mind pay attention to the subject."

This social aspect of bibliotherapy could foster such social *einstellung* as self-understanding, world understanding, social graces and competency; improved conversational ease and quality, critical judgment of world issues, an understanding of the background of society (in the large sense of the word). Best of all, it could lead to universality of thought, action, and responsibility.

---

As an example of the effect that could be focused on
the social, cultural, and personal attitudes and actions of
an individual, let us use Kant's categorical imperative "All
men are created equal" as the principle. The resulting con­
cept could be: regard a human being as an end result; never
as a means. The social attitude is: this means everyone
with whom I come in contact. The social action is helpful­­
ness and consideration. The cultural concept is: "Love in
a true sense of the word cannot hate. The cultural action:
"Love thy neighbor as thyself." The personal concept is:
"He who says he loves God and loves not his fellow men is a
liar." The suitable action would be to use the above as
the core of interpersonal relationships with an attitude
of friendly consideration of all.

To return to the basic premise that was to be dis­
cussed without falter or distraction. It can be summed in
the statement that all that has been said points to the
fact that literature of high standards used as bibliotherapy
could be used to help man to develop into what man could be
-- was meant to be.

Wonders are many, and none is more wonderful than
man. Cunning beyond fancy's dream is the fertile
skill which brings him now to evil -- now to good.
Antigone
CHAPTER IV

RESULTS, CONCLUSIONS, AND IMPLICATIONS

The hypothesis that the study attempts to test is that using the techniques of bibliotherapy under pilot-study research conditions, the degree of attitude adjustment of the experimental group can be changed to a statistically significant level at the five per cent and the one per cent fiducial limits as evaluated by appropriate statistical measures.

Using the pilot-study research conditions explained in Chapter II, the following procedures were followed. The matched pair situation was set up using the criteria of grade, age in months, sex, total score of the preliminary California Personality Scale, the total score of the Bell Personality Inventory, and the California Achievement Test (verbal skills score). The comparison of the total raw scores of the control group and the experimental group yielded a total difference of zero on the Bell and twelve on the California. The total group-mean for the control group on the California Scale was 139.690 and the median 139.500. For the experimental group, the mean was 136.924 and the median 141.166. The difference in the means was .766 or less than one point. The Bell are .96 difference in means, .0 in un-grouped mean. The implications of these
results is that the matching was extremely close, lending greater validity to the results of the study.

A direct difference t-ratio was run on the score of the two groups on the preliminary test. The t-score for the preliminary test was 1.02. The experiment was continued using the procedures described above and operating under the counseling atmosphere described. The testing, interviews, the use of the bibliotherapy material by the students, the retesting took nearly an entire school year.

The results of the second test were tabulated and evaluated. The Bell test was not given a second time because its prime value had been to act as a control on the California test during the matching, and to substantiate the findings of the difference between the two groups as regards the expertness of the matching. The bibliotherapy material was geared to the divisions of the California test only, since, as was explained in Chapter II, it has a finer degree of differentiation between the kinds of attitudes measured.

In the second test, the mean for the control group was 132.57; the median 137.00. The mean for the experimental group was 146.24; the median was 150.75. The difference between the means was 13.67. The other test for a change in degree of adjustment was to compare the experimental test one mean against experimental test two mean, and the control test one and two means against each other. Those results
are: in the control group, a difference between 139.680 in test one and 132.57 in test two, or a negative 7.11. In the experimental group, the mean in test one was 138.924, and that of test two was 146.24. This is a difference of a positive 7.32, or a total difference of 14.43 points in the score of the total group.

Again, a t-ratio formula was used, and t for the second test was 4.13. The t-ratio required for significance, 25 degrees of freedom, is 2.787 at the one per cent level. Therefore, using the direct difference t-ratio for matched samples, these results were found to be significant at the one per cent level, which satisfies the conditions of the study.

CONCLUSIONS:

Conclusions have been reached in three areas. 1) the study test itself, 2) Counseling, and 3) education. As regards the results of the study, both the problem as stated above in the beginning of Chapter II, and the hypothesis which was proposed in the beginning of Chapter IV, may be considered to have received an affirmative answer. However, there are some flaws, as the reader must have been quick to notice. Why did the control group drop in its total group-amount of adjustment in the second test? The writer will be the first to admit that no definite reason can be given. It is possible that one of the following conditions could have had an effect:
1. The drop might have been caused by chance reverse action of bibliotherapy.
2. The experimenter found it hard to maintain an impartial role, since the control group needed help in adjustment as much as the experimental group. Teaching and counseling experience made it hard to "offer stones instead of bread". Counselor may have leaned backward to counteract this recognized tendency and been cold in the interpersonal relationships with the control group.

In the study, during the interviews and therapy, conditions were present which, although some were advocated by Russell to be necessary to successful bibliotherapy, might be difficult to reproduce with unselected groups.

1. Variety of specially selected and focused materials were present.
2. A permissive atmosphere in choice and discussion was maintained throughout the therapy.
3. The intellectual ability was not that of the average class.
4. The reading ability was above average level with a few exceptions.
5. A slightly higher socio-economic level exists in this group than in the average school population.
6. Much of the approach was individualized, as is implicit in bibliotherapy, but time is a factor in the conventional school and classroom. This study took an enormous amount of time.

In counseling, many individual effects of bibliotherapy were observed in operation. Some of these were mentioned from a theoretical view in Chapter III, but all of them have been observed and commented upon by other bibliotherapists. Indeed Plato could be said to be the first writer in the field in his Poetics and Republic, and Aristotle first expounded the theory of catharsis. In the counseling situation, bibliotherapy affords an opportunity for creative thinking -- constructive re-analysis, and
reflective thinking; insight is afforded; catharsis can be obtained by identification, by abreaction, by the relief of learning of similarity, by vicarious experience, by resolution of problems; deep emotional responses can be observed, individual patterns can be adjusted to be more in line with cultural patterns. Above all, it has been observed as an excellent way to gain entry into a discussion from the client of a personal problem since the identification with, or existence of a similar problem need not either be faced or admitted at first if the client does not so desire.

Changes in the psychological field produced by tensions involve action; some cause a redistribution and overflow of tensions, resulting in tension reduction. Some cause a restructuring of the personality aimed at the reduction of existing tensions. In any case, the reduction of tension, instead of creating a state of equilibrium, causes a restructuring of the field involving new instabilities, and tensions making desirable new kinds of goals, and introducing new aspirations, which leads, of course, directly into education.

In education, since reading of books unsupervised, in the main seems to indicate a possible slight negative effect, it would seem prudent to pay close attention in literature class to human values and relationships in the material taught for this reason as well as for the highly positive results shown. This study was not testing
a new idea, and it was but a pilot test, but it seems to substantiate a long-held teacher observation. The teacher relates knowledge to understanding, action to spiritual values gained in contemplation, reality to vision and dreams, things to people, and people to each other. Bibliotherapy is a potent tool to help accomplish this aim, for the following four reasons:

1. Education is the process of arranging physical, personal, and ideological factors into a system of valid relationships.
2. The primary benefit derived from literature is the influence which it exerts on the individual understanding of relationships.
3. The primary usefulness of literature stems from the inferences which are drawn from these understandings which are used in individual judgments made in personal situations.
4. Nowhere else than in literature, is there such a source of intuitive, sensitive and discerning race wisdom.

IMPLICATIONS:

The implications which may be drawn from this study fall into three main categories (1) implications for further testing, (2) implications for counseling and clinical treatment and (3) implications for language arts.

IMPLICATIONS FOR TESTING

There are several apparent implications for further testing along the lines of the present study. Much more of this work has to be done before we can emphatically state that the results of bibliotherapy are valid with many populations and under varied situations and needs.
1. The set-up of this study, or modifications of it, could be done on a national or state-wide scale. This will be difficult, as Dr. Russell pointed out in an interview, because of the time and effort involved by many persons and under many conditions. Eventually, this will have to be done.

2. A statistical study of the effects of bibliotherapy with a gifted population is involved in the dissertation study which the writer has begun.

3. The M.M.P.I. could be used in a relationship with bibliotherapy for guidance clients on a case-study basis.

4. A statistical study of the relationship of bibliotherapy and the M.M.P.I. with college students on a group study basis could be made.

Other writers have emphasized the significance of testing the value of bibliotherapy as a projective technique, such as the T.A.T. and Rorschach tests. Caroline Shrodes in her dissertation investigates the possibility. A study of her work would be rewarding for additional thought or work in projective techniques.

While attitudes are occasionally revealed in the existing projective tests, it is seldom that the subjects, theories, and values are explicitly stated. In the identifications elicited by imaginative literature, in addition to the expressions of attitudes toward self in the personal relationships, attributions of meaning and theories of life were expounded.1

IMPLICATIONS FOR THERAPY

The study has tested -- in pilot study scope -- the premise that bibliotherapy can change individual attitudes;

1Shrodes, loc.cit.
that is to say, individualized concepts which determine attitudes. By individualized concepts is meant the phenomenal field, which is a definition of events or phenomena, as they appear to or have value for the individual. Those parts of that "field" which the person sees as characteristic of himself are of great significance in behavior. These include his mundane self and his relationship with the cultural and physical worlds -- that is to say, a total self or "self-concept". (Horney's "idealized self-image" would seem to be one of the same as Rogers' "self-concept".) Presumably Rogers' "healthy self-concept", Fromm's "true self", Horney's "real self", and Perls' gestaltic "whole" are assimilable.

Then, using statements from various of these approaches to therapy, it is suggested that bibliotherapy as a therapeutic tool may be of value in these areas, and the possibilities be objectively investigated.¹

The gestaltic statement that the therapist must be aware of the interplay of background and figure is similar to Sullivan's emphasis on inter-personal relations. Use of bibliotherapy gives some hint of such interplay -- its elasticity, rigidity, or repression -- by the manner in which the client reacts to the literary structured situation.

continuing to repress, to censor, to defeat the therapist's efforts to penetrate his defenses. In bibliotherapy, he doesn't need immediately to face reality in discussion. He discusses characters, but much of his own personality structure will be used to make judgments and interpretations. The device will bring out and work out resistences without directly challenging his defenses in the initial difficult stages.

Parls, Hefferline and Goodman present graded experiments designed to bring difficulties (overlooked mechanisms for repression) to the attention of the client. It may be possible to structure bibliotherapy as some of these graded experiments, since the therapeutic experiments allegedly bring out sharp delineation and precise verbal description of the disrupting block or void, and open up ways to overcome it.

The client-centered approach is built on a "re-conceptualized system of values based on a person's own feelings and experiences." Within the self-adjustive theory branch of this approach, literature has been demonstrated to have an effect on attitudes -- therefore, on concepts and values. The central effect of bibliotherapy is, of course, based on this process of re-conceptualizing. Rather than a pattern imposed upon experience, it helps the client to see himself (and others) as a pattern of behavior drawn from
experience. Because it is more realistic, it is more in
harmony with perceived self; ideals and behavior are more
socially sound.

Sometimes in the period of adjustment between the
picture of the "idealized self" and the "real self", it helps
the client to learn that he is not the only one who has made
such adjustment, by other means than verbal assurance. Then,
too, the patterns which "other selves" have worked out may
prove stimulating in the process of working out the client's
own adjustment.

IMPLICATIONS FOR EDUCATION

The implications for the revamping of the language
arts program are enormous. So much so, that the writer has
been given a research grant by the Brigham Young University
for the purpose of investigating the basic concepts involved
in the language arts program and the procedures involved in
arranging them in sequential, conceptual-block teaching
order. Also, the research is attempting to integrate the
values derived from a bibliotherapy and bibliohygienic approach
to literature into the structure of the language arts curri-
culum. Therefore, the premises implicit in this research,
which would otherwise be stated here, must be reserved to be
released with the total results of that study when completed.

The Reading Ladders which has been written is anno-
tated and chosen for elementary students and for the average
reader. None has been done for the college and high-school
population nor for gifted students of well-above-average reading ability, this group would seem to be a most fruitful segment for study of the effects of bibliotherapy and bibliohygenic techniques. The writer is presently engaged in annotating and formulating such reading devices for use with a gifted population as the subject of a doctoral dissertation.

There is virtue in knowing when to stop, but the discussion cannot close to the writer's satisfaction without a statement of personal attitude toward bibliotherapy. Nowhere is it more beautifully phrased than in John Ruskin's *Sesame and Lilies*:

But a book is written, not to multiply the voice merely, not to carry it merely. The author has something to say which he believes to be true and useful, or helpfully beautiful. So far as he knows, no one has yet said it; so far as he knows, no one else can say it. He is bound to say it, clearly and melodiously if he may; clearly, at all events. In the sum of his life, he finds this to be the thing, or group of things manifest to him. This, the piece of true knowledge, or insight which his share of sunshine and earth has permitted him to seize. He fain would set it down forever; engrave it on rock, if he could; saying "This is the best of me; for the rest, I ate, and drank, and slept, loved and hated like another; my life was as the vapor, and is not; but this I saw and knew; this, if anything of mine, is worth your memory.
APPENDIX

The charts presented here are the statistical records of the experiment — including the matching data, the test result calculations, and the matched-pairs calculations.

In a further attempt to estimate the significance of the results, the chi-square test and the sign test were applied, revealing a highly significant statistical result.

The hypothesis proposed at the beginning of the study may be considered to have been proved beyond the probability of chance.
TABLE 1
EVALUATION OF CALIFORNIA PERSONALITY TEST, CONTROL GROUP

| Highest Score | 173 |
| Lowest Score  | 101 |
| Range         | 72  |
| Distribution Interval | 5  |

Frequency Distribution:

<table>
<thead>
<tr>
<th>Distribution Interval</th>
<th>TAB</th>
<th>F</th>
<th>CF</th>
<th>D</th>
<th>FD</th>
</tr>
</thead>
<tbody>
<tr>
<td>170-174.5</td>
<td>1</td>
<td>1</td>
<td>26</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>165-169.5</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>160-164.5</td>
<td>4</td>
<td>4</td>
<td>25</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>155-159.5</td>
<td>0</td>
<td>0</td>
<td>21</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>150-154.5</td>
<td>2</td>
<td>2</td>
<td>21</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>145-149.5</td>
<td>3</td>
<td>3</td>
<td>19</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>140-144.5</td>
<td>3</td>
<td>3</td>
<td>16</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>135-139.5</td>
<td>3</td>
<td>3</td>
<td>13</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>130-134.5</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>-1</td>
<td>-5</td>
</tr>
<tr>
<td>125-129.5</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>-2</td>
<td>-2</td>
</tr>
<tr>
<td>120-124.5</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>-3</td>
<td>0</td>
</tr>
<tr>
<td>115-119.5</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>-4</td>
<td>-4</td>
</tr>
<tr>
<td>110-114.5</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>-5</td>
<td>-10</td>
</tr>
<tr>
<td>105-109.5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>-6</td>
<td>0</td>
</tr>
<tr>
<td>100-104.5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-7</td>
<td>-7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>26</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Guessed Mean ........... 137.000
Ungrouped Data Mean ... 139.538

Formula For Mean:

\[
\bar{X} = \text{G.M.} + \left( \frac{\sum FD}{N} \right)H
\]

\[
\bar{X} = 137 + \left( \frac{14}{26} \right)5
\]

\[
\bar{X} = 137 + 2.69
\]

\[
\bar{X} = 139.690
\]

\[
M = L + \left( \frac{N}{2} - \text{CF} \right) \frac{H}{FW}
\]

\[
M = 134.5 + \left( \frac{26}{2} - 10 \right) \frac{5}{3}
\]

\[
M = 134.5 + 5 \frac{10}{3}
\]

\[
M = 139.500
\]
<table>
<thead>
<tr>
<th>Highest Score</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest Score</td>
<td>86</td>
</tr>
<tr>
<td>Range</td>
<td>79</td>
</tr>
<tr>
<td>Distribution Interval</td>
<td>5</td>
</tr>
</tbody>
</table>

Frequency Distribution:

<table>
<thead>
<tr>
<th>TAB</th>
<th>F</th>
<th>CF</th>
<th>D</th>
<th>FD</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89.5</td>
<td>1</td>
<td>1</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>80-84.5</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>9</td>
</tr>
<tr>
<td>75-79.5</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>70-74.5</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td>65-69.5</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>60-64.5</td>
<td>2</td>
<td>2</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>55-59.5</td>
<td>1</td>
<td>1</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>50-54.5</td>
<td>2</td>
<td>2</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td>45-49.5</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>40-44.5</td>
<td>2</td>
<td>2</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>35-39.5</td>
<td>4</td>
<td>4</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>30-34.5</td>
<td>2</td>
<td>2</td>
<td>13</td>
<td>-1</td>
</tr>
<tr>
<td>25-29.5</td>
<td>2</td>
<td>2</td>
<td>11</td>
<td>-2</td>
</tr>
<tr>
<td>20-24.5</td>
<td>6</td>
<td>6</td>
<td>9</td>
<td>-3</td>
</tr>
<tr>
<td>15-19.5</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>-4</td>
</tr>
<tr>
<td>10-14.5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>-5</td>
</tr>
<tr>
<td>5-9.5</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>-6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>26</td>
<td>26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ \bar{X} = G.M. + \left( \frac{4 \cdot FD}{N} \right)H \]
\[ \bar{X} = 37.0 \pm \frac{2}{26} \]
\[ \bar{X} = 37.0 - \frac{10}{13} \]
\[ \bar{X} = 37.0 \pm (-.77) \]
\[ \bar{X} = 37.0 - .77 \]

\[ \bar{X} = 36.23 \]

\[ M = L + \left( \frac{N - CF}{FW} \right)H \]
\[ M = 34.5 + \left( \frac{26}{2} - \frac{13}{4} \right)5 \]
\[ M = 34.5 + \left( \frac{13 - 13}{4} \right)5 \]
\[ M = 34.5 + \left( \frac{0}{4} \right)5 \]

\[ M = 34.5 + 0 \]

\[ M = 34.5 \]
### TABLE 3
EVALUATION OF CALIFORNIA PERSONALITY TEST, EXPERIMENTAL GROUP

| Highest Score | 169 |
| Lowest Score  | 90  |
| Range         | 79  |

**Distribution Interval**

<table>
<thead>
<tr>
<th>Frequency Distribution:</th>
</tr>
</thead>
<tbody>
<tr>
<td>165-169.5</td>
</tr>
<tr>
<td>160-164.5</td>
</tr>
<tr>
<td>155-159.5</td>
</tr>
<tr>
<td>150-154.5</td>
</tr>
<tr>
<td>145-149.5</td>
</tr>
<tr>
<td>140-144.5</td>
</tr>
<tr>
<td>135-139.5</td>
</tr>
<tr>
<td>130-134.5</td>
</tr>
<tr>
<td>125-129.5</td>
</tr>
<tr>
<td>120-124.5</td>
</tr>
<tr>
<td>115-119.5</td>
</tr>
<tr>
<td>110-114.5</td>
</tr>
<tr>
<td>105-109.5</td>
</tr>
<tr>
<td>100-104.5</td>
</tr>
<tr>
<td>95- 99.5</td>
</tr>
<tr>
<td>90- 94.5</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
</tbody>
</table>

**Guessed Mean**

142.000

**Ungrouped Data Mean**

139.100

**Formula For Mean:**

\[
\bar{X} = G.M. + \left( \frac{FD}{N} \right)H
\]

\[
\bar{X} = 142.00 + \left( \frac{-16}{26} \right)5
\]

\[
\bar{X} = 142.00 + \left( \frac{-80}{26} \right)
\]

\[
\bar{X} = 142.00 - 3.076
\]

\[
\bar{X} = 138.924
\]

\[
M = L + \left( \frac{N - CF}{FW} \right)H
\]

\[
M = 139.5 + \left( \frac{26 - 12}{3} \right)5
\]

\[
M = 139.5 + \frac{13 - 12}{3} \times 5
\]

\[
M = 139.5 + \frac{5}{3}
\]

\[
M = 139.5 + 1.666
\]

\[
M = 141.166
\]
### Table 4
**EVALUATION OF BELL PERSONALITY TEST, EXPERIMENTAL GROUP**

<table>
<thead>
<tr>
<th>Highest Score ..........</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest Score ..........</td>
<td>70</td>
</tr>
<tr>
<td>Range .................</td>
<td>65</td>
</tr>
<tr>
<td>Distribution Interval</td>
<td>3</td>
</tr>
</tbody>
</table>

**Frequency Distribution:**

<table>
<thead>
<tr>
<th>Guesed Mean ..........</th>
<th>37.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ungrouped Data Mean</td>
<td>36.73</td>
</tr>
</tbody>
</table>

**Formula For Mean:**

\[
\bar{X} = G.M. + \left( \frac{\sum FD}{N} \right)H
\]

\[
\bar{X} = 37.00 + \left( \frac{1}{26} \right)5
\]

\[
\bar{X} = 37.00 + \left( \frac{5}{26} \right)
\]

\[
\bar{X} = 37.00 + .19
\]

\[
\bar{X} = 37.19
\]

**Formula For Mean:**

\[
M = L + \left( \frac{N - CF}{FW} \right)H
\]

\[
M = 34.5 + \left( \frac{26}{2} - \frac{12}{2} \right)5
\]

\[
M = 34.5 + \left( \frac{13}{2} - \frac{12}{2} \right)5
\]

\[
M = 34.5 + \left( \frac{1}{2} \right)5
\]

\[
M = 34.5 + \frac{5}{2}
\]

\[
M = 37.00
\]

<table>
<thead>
<tr>
<th>TAB</th>
<th>F</th>
<th>CF</th>
<th>D</th>
<th>FD</th>
</tr>
</thead>
<tbody>
<tr>
<td>70-74.5</td>
<td>1</td>
<td>1</td>
<td>26</td>
<td>7</td>
</tr>
<tr>
<td>65-69.5</td>
<td>1</td>
<td>1</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>60-64.5</td>
<td>2</td>
<td>2</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>55-59.5</td>
<td>2</td>
<td>2</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>50-54.5</td>
<td>2</td>
<td>2</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>45-49.5</td>
<td>3</td>
<td>3</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>40-44.5</td>
<td>1</td>
<td>1</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>35-39.5</td>
<td>2</td>
<td>2</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>30-34.5</td>
<td>4</td>
<td>4</td>
<td>12</td>
<td>-1</td>
</tr>
<tr>
<td>25-29.5</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>-2</td>
</tr>
<tr>
<td>20-24.5</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>-3</td>
</tr>
<tr>
<td>15-19.5</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>-4</td>
</tr>
<tr>
<td>10-14.5</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>-5</td>
</tr>
<tr>
<td>5-09.5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>-6</td>
</tr>
</tbody>
</table>

**TOTAL** 26 26
TABLE 5

EVALUATION OF CALIFORNIA PERSONALITY TEST, CONTROL GROUP, TEST 2

| Highest Score | 161 |
| Lowest Score | 92 |
| Range | 69 (+ 1) |
| Distribution Interval | 5 |

Frequency Distribution:

<table>
<thead>
<tr>
<th>TAB</th>
<th>F</th>
<th>CF</th>
<th>D</th>
<th>FD</th>
</tr>
</thead>
<tbody>
<tr>
<td>160-164.5</td>
<td>2</td>
<td>2</td>
<td>26</td>
<td>6</td>
</tr>
<tr>
<td>155-159.5</td>
<td>1</td>
<td>1</td>
<td>24</td>
<td>5</td>
</tr>
<tr>
<td>150-154.5</td>
<td>1</td>
<td>1</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>145-149.5</td>
<td>2</td>
<td>2</td>
<td>22</td>
<td>3</td>
</tr>
<tr>
<td>140-144.5</td>
<td>5</td>
<td>5</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>135-139.5</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>130-134.5</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>125-129.5</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>-1</td>
</tr>
<tr>
<td>120-124.5</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>-2</td>
</tr>
<tr>
<td>115-119.5</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>-3</td>
</tr>
<tr>
<td>110-114.5</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>-4</td>
</tr>
<tr>
<td>105-109.5</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>-5</td>
</tr>
<tr>
<td>100-104.5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>-6</td>
</tr>
<tr>
<td>95-99.5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>-7</td>
</tr>
<tr>
<td>90-94.5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>26</td>
<td>26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Guessed Mean ........ 132.00

Ungrouped Data Mean 132.34

Formula For Mean:

\[ \bar{X} = G.M. + \left( \frac{\pm FD}{N} \right)H \]

\[ \bar{X} = 132.00 + \left( \frac{3}{26} \right)5 \]

\[ \bar{X} = 132.00 + \frac{15}{26} \]

\[ \bar{X} = 132.00 + .57 \]

\[ \bar{X} = 132.57 \]

\[ M = L + \left( \frac{N - CF}{FW} \right)H \]

\[ M = 129.5 + \left( \frac{26 - 10}{2} \right)5 \]

\[ M = 129.5 + 15 \]

\[ M = 129.5 + 7.5 \]

\[ M = 137.00 \]
### Table 6
EVALUATION OF CALIFORNIA PERSONALITY TEST, EXPERIMENTAL GROUP, TEST 2

<table>
<thead>
<tr>
<th>Highest Score</th>
<th>169</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest Score</td>
<td>95</td>
</tr>
<tr>
<td>Range</td>
<td>74 (+1)</td>
</tr>
<tr>
<td>Distribution Interval</td>
<td>5</td>
</tr>
</tbody>
</table>

Frequency Distribution:

<table>
<thead>
<tr>
<th>Score Interval</th>
<th>TAB</th>
<th>F</th>
<th>CF</th>
<th>D</th>
<th>FD</th>
</tr>
</thead>
<tbody>
<tr>
<td>165-169.5</td>
<td>4</td>
<td>4</td>
<td>26</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>160-164.5</td>
<td>3</td>
<td>3</td>
<td>22</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>155-159.5</td>
<td>1</td>
<td>1</td>
<td>19</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>150-154.5</td>
<td>6</td>
<td>6</td>
<td>18</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>145-149.5</td>
<td>4</td>
<td>4</td>
<td>12</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>140-144.5</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>-1</td>
<td>-1</td>
</tr>
<tr>
<td>135-139.5</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>-2</td>
<td>0</td>
</tr>
<tr>
<td>130-134.5</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>-3</td>
<td>-9</td>
</tr>
<tr>
<td>125-129.5</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>-4</td>
<td>0</td>
</tr>
<tr>
<td>120-124.5</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>-5</td>
<td>-10</td>
</tr>
<tr>
<td>115-119.5</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>-6</td>
<td>0</td>
</tr>
<tr>
<td>110-114.5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>-7</td>
<td>-7</td>
</tr>
<tr>
<td>105-109.5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>-8</td>
<td>0</td>
</tr>
<tr>
<td>100-104.5</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>-9</td>
<td>0</td>
</tr>
<tr>
<td>95-99.5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-10</td>
<td>-10</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>26</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Guessed Mean** ...... 147.00

**Ungrouped Data Mean** 145.960

**Formula For Mean:**

\[
\bar{X} = \text{G.M.} + \left( \frac{\frac{\text{FD}}{N}}{2} \right)H
\]

\[
\bar{X} = 147.00 + \left( \frac{-4}{26} \right)5
\]

\[
\bar{X} = 147.00 + \left( \frac{-20}{26} \right)
\]

\[
\bar{X} = 147.00 + (-.76)
\]

\[
\bar{X} = 146.24
\]

\[
M = L + \left( \frac{N - \text{CF}}{\text{FW}} \right)H
\]

\[
M = 144.5 + \left( \frac{26}{2} - 8 \right)
\]

\[
M = 144.5 + \left( \frac{13 - 8}{4} \right)5
\]

\[
M = 144.5 + \left( \frac{5}{4} \right)5
\]

\[
M = 144.5 + \frac{25}{4}
\]

\[
M = 144.5 + 6.25
\]

\[
M = 150.75
\]
<table>
<thead>
<tr>
<th>NAME</th>
<th>EXP. GROUP</th>
<th>Personal Adjustment</th>
<th>Social Adjust.</th>
<th>Total Cal. Score</th>
<th>Self Inventory</th>
<th>GIL. Language (total)</th>
<th>Class</th>
<th>Sex</th>
<th>Age in Months</th>
<th>Talks with</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>45</td>
<td>90</td>
<td>61</td>
<td>77</td>
<td>115</td>
<td>9</td>
<td>M</td>
<td>174</td>
<td>12</td>
<td>95</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>69</td>
<td>118</td>
<td>70</td>
<td>60</td>
<td>94</td>
<td>11</td>
<td>M</td>
<td>199</td>
<td>26</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>63</td>
<td>134</td>
<td>53</td>
<td>87</td>
<td>128</td>
<td>11</td>
<td>M</td>
<td>208</td>
<td>19</td>
<td>158</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>72</td>
<td>133</td>
<td>14</td>
<td>82</td>
<td>93</td>
<td>9</td>
<td>M</td>
<td>177</td>
<td>9</td>
<td>149</td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>77</td>
<td>151</td>
<td>17</td>
<td>65</td>
<td>92</td>
<td>11</td>
<td>M</td>
<td>200</td>
<td>14</td>
<td>154</td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>83</td>
<td>167</td>
<td>16</td>
<td>90</td>
<td>85</td>
<td>9</td>
<td>F</td>
<td>177</td>
<td>5</td>
<td>167</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>72</td>
<td>144</td>
<td>36</td>
<td>58</td>
<td>77</td>
<td>9</td>
<td>M</td>
<td>174</td>
<td>11</td>
<td>147</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>78</td>
<td>147</td>
<td>33</td>
<td>70</td>
<td>85</td>
<td>9</td>
<td>F</td>
<td>175</td>
<td>6</td>
<td>167</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>72</td>
<td>128</td>
<td>46</td>
<td>85</td>
<td>78</td>
<td>11</td>
<td>F</td>
<td>204</td>
<td>18</td>
<td>132</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>72</td>
<td>133</td>
<td>49</td>
<td>91</td>
<td>103</td>
<td>11</td>
<td>F</td>
<td>200</td>
<td>1</td>
<td>141</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>57</td>
<td>116</td>
<td>58</td>
<td>34</td>
<td>44</td>
<td>9</td>
<td>M</td>
<td>178</td>
<td>15</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>82</td>
<td>151</td>
<td>41</td>
<td>72</td>
<td>70</td>
<td>11</td>
<td>F</td>
<td>202</td>
<td>23</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>60</td>
<td>111</td>
<td>65</td>
<td>88</td>
<td>79</td>
<td>11</td>
<td>F</td>
<td>208</td>
<td>17</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>70</td>
<td>136</td>
<td>32</td>
<td>56</td>
<td>65</td>
<td>11</td>
<td>M</td>
<td>192</td>
<td>7</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>82</td>
<td>154</td>
<td>30</td>
<td>76</td>
<td>109</td>
<td>11</td>
<td>F</td>
<td>204</td>
<td>20</td>
<td>154</td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>81</td>
<td>162</td>
<td>10</td>
<td>75</td>
<td>87</td>
<td>11</td>
<td>M</td>
<td>208</td>
<td>8</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>59</td>
<td>107</td>
<td>64</td>
<td>69</td>
<td>74</td>
<td>9</td>
<td>M</td>
<td>182</td>
<td>2</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>71</td>
<td>147</td>
<td>50</td>
<td>84</td>
<td>97</td>
<td>9</td>
<td>F</td>
<td>176</td>
<td>10</td>
<td>147</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>64</td>
<td>126</td>
<td>49</td>
<td>59</td>
<td>83</td>
<td>9</td>
<td>M</td>
<td>173</td>
<td>21</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>81</td>
<td>158</td>
<td>9</td>
<td>79</td>
<td>79</td>
<td>9</td>
<td>F</td>
<td>170</td>
<td>24</td>
<td>164</td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>81</td>
<td>161</td>
<td>22</td>
<td>66</td>
<td>55</td>
<td>9</td>
<td>F</td>
<td>180</td>
<td>16</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>69</td>
<td>131</td>
<td>55</td>
<td>50</td>
<td>56</td>
<td>9</td>
<td>F</td>
<td>182</td>
<td>3</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>77</td>
<td>142</td>
<td>31</td>
<td>79</td>
<td>93</td>
<td>9</td>
<td>F</td>
<td>179</td>
<td>13</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>74</td>
<td>142</td>
<td>32</td>
<td>80</td>
<td>107</td>
<td>11</td>
<td>M</td>
<td>201</td>
<td>25</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>80</td>
<td>158</td>
<td>7</td>
<td>95</td>
<td>125</td>
<td>11</td>
<td>M</td>
<td>193</td>
<td>22</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>86</td>
<td>169</td>
<td>5</td>
<td>55</td>
<td>74</td>
<td>9</td>
<td>M</td>
<td>174</td>
<td>4</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>NAME</td>
<td>Personal Adjustment</td>
<td>Social Adjustment</td>
<td>Total Cal.</td>
<td>Bell Inventory</td>
<td>Cal. Language</td>
<td>Cal. Reading</td>
<td>Class</td>
<td>Sex</td>
<td>Age in Months</td>
<td>Pairs</td>
<td>Total Score</td>
</tr>
<tr>
<td>------</td>
<td>---------------------</td>
<td>-------------------</td>
<td>------------</td>
<td>----------------</td>
<td>---------------</td>
<td>--------------</td>
<td>--------</td>
<td>-----</td>
<td>----------------</td>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>74</td>
<td>70</td>
<td>144</td>
<td>24</td>
<td>96</td>
<td>108</td>
<td>9</td>
<td>M</td>
<td>174</td>
<td>10</td>
<td></td>
<td>139</td>
</tr>
<tr>
<td>50</td>
<td>51</td>
<td>101</td>
<td>86</td>
<td>63</td>
<td>76</td>
<td>9</td>
<td>M</td>
<td>177</td>
<td>17</td>
<td></td>
<td>113</td>
</tr>
<tr>
<td>70</td>
<td>62</td>
<td>132</td>
<td>37</td>
<td>44</td>
<td>63</td>
<td>9</td>
<td>F</td>
<td>180</td>
<td>22</td>
<td></td>
<td>141</td>
</tr>
<tr>
<td>84</td>
<td>89</td>
<td>173</td>
<td>22</td>
<td>55</td>
<td>59</td>
<td>9</td>
<td>M</td>
<td>179</td>
<td>26</td>
<td></td>
<td>140</td>
</tr>
<tr>
<td>78</td>
<td>82</td>
<td>160</td>
<td>9</td>
<td>75</td>
<td>90</td>
<td>9</td>
<td>M</td>
<td>173</td>
<td>10</td>
<td></td>
<td>139</td>
</tr>
<tr>
<td>62</td>
<td>76</td>
<td>138</td>
<td>37</td>
<td>85</td>
<td>84</td>
<td>9</td>
<td>F</td>
<td>173</td>
<td>8</td>
<td></td>
<td>146</td>
</tr>
<tr>
<td>76</td>
<td>68</td>
<td>144</td>
<td>29</td>
<td>42</td>
<td>42</td>
<td>11</td>
<td>M</td>
<td>199</td>
<td>14</td>
<td></td>
<td>134</td>
</tr>
<tr>
<td>78</td>
<td>86</td>
<td>164</td>
<td>16</td>
<td>48</td>
<td>71</td>
<td>11</td>
<td>F</td>
<td>206</td>
<td>16</td>
<td></td>
<td>159</td>
</tr>
<tr>
<td>69</td>
<td>67</td>
<td>136</td>
<td>20</td>
<td>79</td>
<td>88</td>
<td>9</td>
<td>M</td>
<td>173</td>
<td>4</td>
<td></td>
<td>138</td>
</tr>
<tr>
<td>76</td>
<td>69</td>
<td>145</td>
<td>53</td>
<td>82</td>
<td>83</td>
<td>9</td>
<td>F</td>
<td>173</td>
<td>18</td>
<td></td>
<td>120</td>
</tr>
<tr>
<td>71</td>
<td>74</td>
<td>145</td>
<td>32</td>
<td>61</td>
<td>71</td>
<td>9</td>
<td>M</td>
<td>180</td>
<td>7</td>
<td></td>
<td>131</td>
</tr>
<tr>
<td>70</td>
<td>47</td>
<td>117</td>
<td>66</td>
<td>75</td>
<td>99</td>
<td>9</td>
<td>M</td>
<td>174</td>
<td>1</td>
<td></td>
<td>99</td>
</tr>
<tr>
<td>60</td>
<td>70</td>
<td>130</td>
<td>35</td>
<td>83</td>
<td>90</td>
<td>9</td>
<td>F</td>
<td>175</td>
<td>23</td>
<td></td>
<td>140</td>
</tr>
<tr>
<td>68</td>
<td>74</td>
<td>142</td>
<td>42</td>
<td>75</td>
<td>89</td>
<td>11</td>
<td>M</td>
<td>208</td>
<td>5</td>
<td></td>
<td>146</td>
</tr>
<tr>
<td>42</td>
<td>70</td>
<td>112</td>
<td>59</td>
<td>35</td>
<td>63</td>
<td>9</td>
<td>M</td>
<td>173</td>
<td>11</td>
<td></td>
<td>127</td>
</tr>
<tr>
<td>79</td>
<td>82</td>
<td>161</td>
<td>29</td>
<td>59</td>
<td>72</td>
<td>9</td>
<td>F</td>
<td>192</td>
<td>21</td>
<td></td>
<td>150</td>
</tr>
<tr>
<td>60</td>
<td>72</td>
<td>132</td>
<td>64</td>
<td>79</td>
<td>65</td>
<td>11</td>
<td>M</td>
<td>204</td>
<td>13</td>
<td></td>
<td>92</td>
</tr>
<tr>
<td>67</td>
<td>68</td>
<td>135</td>
<td>53</td>
<td>76</td>
<td>78</td>
<td>11</td>
<td>F</td>
<td>197</td>
<td>9</td>
<td></td>
<td>113</td>
</tr>
<tr>
<td>60</td>
<td>65</td>
<td>125</td>
<td>42</td>
<td>90</td>
<td>115</td>
<td>11</td>
<td>M</td>
<td>203</td>
<td>3</td>
<td></td>
<td>126</td>
</tr>
<tr>
<td>70</td>
<td>84</td>
<td>154</td>
<td>21</td>
<td>95</td>
<td>105</td>
<td>11</td>
<td>F</td>
<td>204</td>
<td>15</td>
<td></td>
<td>143</td>
</tr>
<tr>
<td>44</td>
<td>68</td>
<td>112</td>
<td>21</td>
<td>62</td>
<td>63</td>
<td>9</td>
<td>M</td>
<td>173</td>
<td>19</td>
<td></td>
<td>107</td>
</tr>
<tr>
<td>82</td>
<td>78</td>
<td>160</td>
<td>7</td>
<td>101</td>
<td>123</td>
<td>11</td>
<td>M</td>
<td>204</td>
<td>25</td>
<td></td>
<td>145</td>
</tr>
<tr>
<td>75</td>
<td>74</td>
<td>149</td>
<td>21</td>
<td>77</td>
<td>85</td>
<td>11</td>
<td>F</td>
<td>203</td>
<td>12</td>
<td></td>
<td>142</td>
</tr>
<tr>
<td>73</td>
<td>80</td>
<td>153</td>
<td>32</td>
<td>83</td>
<td>93</td>
<td>9</td>
<td>F</td>
<td>179</td>
<td>20</td>
<td></td>
<td>116</td>
</tr>
<tr>
<td>65</td>
<td>66</td>
<td>131</td>
<td>37</td>
<td>81</td>
<td>113</td>
<td>11</td>
<td>M</td>
<td>202</td>
<td>24</td>
<td></td>
<td>135</td>
</tr>
<tr>
<td>67</td>
<td>66</td>
<td>133</td>
<td>62</td>
<td>45</td>
<td>76</td>
<td>11</td>
<td>M</td>
<td>202</td>
<td>2</td>
<td></td>
<td>118</td>
</tr>
<tr>
<td>Class</td>
<td>D</td>
<td>D^2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>----</td>
<td>-----</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>117-90</td>
<td>27</td>
<td>729</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>133-118</td>
<td>15</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>134-125</td>
<td>9</td>
<td>81</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>136-133</td>
<td>3</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>151-142</td>
<td>9</td>
<td>81</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>167-160</td>
<td>7</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>145-144</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>147-138</td>
<td>9</td>
<td>81</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>135-128</td>
<td>7</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>144-133</td>
<td>10</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>116-112</td>
<td>4</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>151-149</td>
<td>2</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>132-111</td>
<td>21</td>
<td>441</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>144-136</td>
<td>8</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>154-154</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>164-162</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>107-101</td>
<td>6</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>147-145</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>126-112</td>
<td>14</td>
<td>196</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>158-153</td>
<td>5</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>161-161</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>132-131</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>142-130</td>
<td>12</td>
<td>144</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>142-131</td>
<td>11</td>
<td>121</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>160-158</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>173-169</td>
<td>4</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ \bar{x}_1 - \bar{x}_2 = \frac{\bar{t}d}{n} = \frac{191}{26} \]

\[ t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{\bar{t}d^2}{n(n-1)}}} = \frac{7.346}{\sqrt{\frac{901.89}{26(25)}}} = \frac{901.89}{650} \]

\[ \sqrt{1.39} = 7.35 \]

\[ \sqrt{1.18} = 1.17898 \]

\[ \bar{t}d = 191 \]

\[ \bar{t}d^2 = 2305 \]

\[ \bar{t}d^2 = \frac{(191)^2}{26} \]

\[ = 2305 - \frac{36481}{26} \]

\[ \bar{t}d^4 = 2305 - 1403.11 \]

\[ \bar{t}d^2 = 901.89 \]

\[ \text{Difference in Means:} \]

\[ 1.01 \]
<table>
<thead>
<tr>
<th>D</th>
<th>D²</th>
<th>1/2 d² = d² - (1/2D)²</th>
</tr>
</thead>
<tbody>
<tr>
<td>141-139</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>112-118</td>
<td>-6</td>
<td>36</td>
</tr>
<tr>
<td>158-126</td>
<td>32</td>
<td>1024</td>
</tr>
<tr>
<td>154-146</td>
<td>8</td>
<td>64</td>
</tr>
<tr>
<td>132-113</td>
<td>19</td>
<td>361</td>
</tr>
<tr>
<td>122-134</td>
<td>-12</td>
<td>144</td>
</tr>
<tr>
<td>160-159</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>150-142</td>
<td>8</td>
<td>64</td>
</tr>
<tr>
<td>152-92</td>
<td>60</td>
<td>3600</td>
</tr>
<tr>
<td>154-143</td>
<td>11</td>
<td>121</td>
</tr>
<tr>
<td>169-143</td>
<td>26</td>
<td>676</td>
</tr>
<tr>
<td>160-135</td>
<td>45</td>
<td>625</td>
</tr>
<tr>
<td>95-99</td>
<td>-4</td>
<td>16</td>
</tr>
<tr>
<td>120-115</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>130-141</td>
<td>-11</td>
<td>121</td>
</tr>
<tr>
<td>149-138</td>
<td>11</td>
<td>121</td>
</tr>
<tr>
<td>165-160</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>167-161</td>
<td>6</td>
<td>36</td>
</tr>
<tr>
<td>147-131</td>
<td>16</td>
<td>256</td>
</tr>
<tr>
<td>153-146</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>150-127</td>
<td>23</td>
<td>529</td>
</tr>
<tr>
<td>147-120</td>
<td>27</td>
<td>729</td>
</tr>
<tr>
<td>145-140</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>168-150</td>
<td>18</td>
<td>324</td>
</tr>
<tr>
<td>131-107</td>
<td>24</td>
<td>576</td>
</tr>
<tr>
<td>164-110</td>
<td>48</td>
<td>2304</td>
</tr>
</tbody>
</table>

\[ \frac{1}{2} d^2 = \frac{d^2 - (\frac{1}{2}D)^2}{N} \]

\[ x_1 - x_2 = \frac{1}{N} D \]

\[ t = \frac{\bar{x}_1 - \bar{x}_2}{\frac{1}{2} d^2 \cdot N(N-1)} \]

\[ t = \frac{13.61}{\sqrt{\frac{7053.16}{26(25)}}} = \frac{13.61}{\sqrt{10.85}} \]

\[ t_1 = 1.01 \]

\[ t_2 = 4.13 \]

0.01 = 3.725
1\% = 2.787
5\% = 2.06
BIBLIOGRAPHY


9. ANDREW, G. "Relationship Between Learning and Expression of Self-orientated Needs at a Mental Health Education Workshop," Mental Hygiene, XXXII (October, 1948), 627-533.


22. BLACKMAN, NATALIE (M.D.) "Experiences With a Literary Club in the Group Treatment of Schizophrenia," Occupational Therapy and Rehabilitation, XIX (October, 1940).


50. CONDELL, LUCY. "Library as a Road to Re-education in


53. CORSON. "Continuing Bibliotherapy as an Aid to Taking the Cure." Journal of Outdoor Life, XXX (September, 1932), 600-2.

54. CORSON, EDITH. "Convincing Medical and Hospital Authorities That No Well-conducted Hospital Can Afford to be Without Library Service," American Library Association Bulletin, XVIII, (September, 1934), 610.


60. ______. "Selecting Books for Neuropsychiatric Patients," Medical Bulletin of the Veterans Administration, VII, (December, 1931), 1214-17.


64. DOLORICE, SISTER. "Doors Are Easily Opened," America, LXXVI (November, 1946), 184-5.

65. DONNELLY, JANE. Bibliography on Bibliotherapy, Pittsburgh, Western Psychiatric Hospital Library, n.d. (407 items).


71. DUNCAN, M. H. "Clinical Use of Fiction and Biography Featuring Stuttering," Journal of Speech and Hearing Disorders, XIV (June, 1949), 139-142.

72. DURRELL, D. SULLIVAN, H. B. Boston University High Interest Low Vocabulary Book List. Educational Clinic, Boston University School of Education, 332 Bay State Road, Boston, Massachusetts.


74. EATON, ANNE THAXTER. Reading With Children. New York: Viking Press, 1940.


82. FITZPATRICK, EDWARD A. How to Educate Human Beings. Bruce Publishing Co.

83. FOREMAN, E. T. "Carefully Chosen Books Have Therapeutic Value," Modern Hospital, XLI (November, 1933), 69.


90. GACON, SALOMON. "Is Reading Therapy?" Diseases of the Nervous System, III (July, 1942), 206-12.

91. GALTON, FRANCIS. Inquiries into the Human Faculty and its Development. E. P. Dutton and Co.

92. GATES, ARTHUR I. "The Role of Personality Maladjustment in Reading Disability," Pedagogical Seminary and Journal of Genetic Psychology, LIX (September, 1941), 77-83.


94. GOLDSMITH, SADIE. "The Fable as a Medium for Character Education," Elementary English Review, XVI (October, 1939), 223-25, 228.


98. GREGORY, WILLIAM E. "Life Is Therapeutic," Mental Hygiene, XXXVIII (April, 1954), 279-84.


101. GUT, WALTER. "Das Kranke und Das Buch," Veska-Zeitschrift, II (October, 1938), 297-300.


(March, 1954), 148-150.


113. The Kinder World of Books Assista in Rehabilitation. Canadian Hospital (September, 1950), 60.


#146. LORETTO, SISTER M. FRANCIS. "Developing Spiritual Values in Children," Elementary English, XXIV (February, 1947), 147-9, 160.


#133. MARY AGNES, SISTER. Social Values in Children's Poetry," Elementary English Review, XXII (April, 1945), 133-38.


#146. ----. "Books Bring Hope; for Mental Patients the Right Book at the Right Time May be the Crucial Turning Point on the Road Back to Recovery," Library Journal. LXXVII (March 1, 1952), 387-392.


#203. SCHECK, JEROME M. "Studies in Bibliotherapy in a Neuropsychiatric Hospital," Occupational Therapy and Rehabilitation. XXIII (December, 1944), 316-23.


1232. **SMITH, NILA BANTON.** "Personal and Social Values of Reading," Elementary English. XXV (Dec., 1948), 490-500.


1262. **WAPLES, DOUGLAS; BERELSON, B. R.; and BRADSHAW, F. R.** What Reading Does to People. Chicago: University of Chicago Press, 1940.


1270. _____, "Relation of Reading to Personality Development," Keeping Reading Programs A abreast of the Times. Compiled and edited by William S. Gray.
WURTZ, C. Bibliography of Reading Lists for Retarded Readers. State University of Iowa, Iowa City, Iowa, (1949).

SUMMARY

The thesis is concerned with a study of the effectiveness of literature of high literary and novel standards used in bibliotherapy with high school students to effect a change of personal and/or social attitudes, as evaluated by statistical measures. The study lies in the field of Educational Research and Services, and in the other field of English and Library Science. Bibliotherapy attempts to use the influence of characters, ideas, situations, and information in literature as a means of creating patterns and standards of behavior and interaction. These activities are used to bring about an enrichment of personal concepts and values which control action, as a means of coping with individual problems. Self-perception is the objective of bibliotherapy which is built on a re-conceptualization of values based on personal feelings and experiences. First
ABSTRACT

BRIGHAM YOUNG UNIVERSITY

COLLEGE OF EDUCATION---DEPARTMENT OF RESEARCH AND SERVICES

WHITEFORD, JUNE GRACEY. A Study of the Effectiveness of Bibliotherapy to Effect a Change of Attitudes As Measured Statistically

80 pages. M.A. Degree. Advisory Committee: Mary A. Krider, chairman; Clinton F. Larson, S. Lyman Tyler.

SUMMARY

The thesis is concerned with a study of the effectiveness of literature of high literary and moral standards used as bibliotherapy with high school students to effect a change of personal and/or social attitudes, as evaluated by statistical measures. The study lies in the major field of Educational Research and Services, and in the minor field of English and Library Science. Bibliotherapy attempts to use the influence of characters, ideas, situations, and information in literature as a means of presenting patterns and standards of behavior and evaluation. These are used to bring about an adjustment of personal concepts and values, which control action, as a means of coping with individual problems. Self-perception is the objective of bibliotherapy which is built on a re-conceptualized system of values based on personal feelings and experiences, first
hand and vicarious.

**STATEMENT OF PROBLEM**

The problem was to conduct a study into educational and guidance values which might be derived from utilizing reading material of aesthetic-literary and high moral standards to form an experimental resource for use with high school students, of average or above average age intellectual ability, who were experiencing difficulty in forming acceptable social, personal, or emotional attitudes, as measured by objective tests. The techniques of bibliotherapy were used under research controlled conditions; the results were measured to determine whether any change took place to a statistically-significant level.

**PROCEDURE**

Students were tested on *California* and *Bell* attitude tests, matched as to total score on the *California Personality Survey*, (checked by Bell Inventory) sex, age in months, grade, and verbal skills as measured on the C.A.T. The total raw scores of both groups were compared. Matching was close. Pairs were divided into control and experimental groups. Books were selected from the same list, but the list shown to the experimental group was correlated with the classifications on the *California Survey*. Student-initiated discussions of reading material followed; the number of sessions varied with individual request. *California Survey* was given eight months later. The mean of the
total scores of each group were compared in the preliminary and the second test. A direct-difference t-ratio was used to measure significance of difference.

RESULTS

The degree of attitude adjustment of the experimental group was changed to a statistically significant level at the one per cent fiducial limit.

1) With twenty-five degrees of freedom, the t-ratio required is 2.787. The t-ratio for the preliminary test was 1.02; for the second test it was 4.13. A difference to a highly significant level was indicated by the chi-square and the sign tests.

2) The group-mean for the control group on the California test was 139.690; for the experimental group, it was 138.924, or .766 difference. The second test group-mean for the control group was 132.57; the experimental group mean was 146.24, or a difference of 13.67.

CONCLUSIONS

1) It has been demonstrated statistically that bibliotherapy has the power to change attitudes through causative concepts and values.

2) In a concept-based educational system, bibliotherapy merits further study as a technique of teaching in the language arts, and as a basis
for curriculum evaluation and construction as regards the values to be derived from literature.

3) In literature class, close attention should be paid to the human values and relationships in the material used.

4) The primary benefit derived from literature is the influence exerted on the individual understanding of relationships. Its primary usefulness stems from inferences drawn from these understandings for individual judgments.

5) Since bibliotherapy fosters abreaction, insight, catharsis and has a bearing on culturally determined difficulties due to deviant pattern formation, then bibliotherapy has a determinate bearing on pattern formation, and as such could be considered a useful therapeutic tool in guidance.