

THE OLD MASTERS ART COLLAGE AS AN INSTRUMENT
OF LEARNING ABOUT ONESELF

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ABSTRACT

The purpose of this study was to determine whether a specific art therapy technique--the Old Masters Art Collage--could be used for the purpose of supplying demonstrable change in self-perception. Prior to this study the OMAC, although used in a variety of settings where the focus was on personal understanding and growth, had never been experimentally tested.

The plan was to use the OMAC as an intervention on only half of the selected population. All of the population would be given pre and post tests. These tests were to be a standard personality test. The Personal Orientation Inventory was chosen as the standard personality test because of its non-threatening character and because it had been specifically designed to measure healthy rather than unhealthy traits.

The population for the study was 30 male and female high school students taken from two psychology classes. The distribution between males and females was uneven.

Ten null hypotheses were developed to compare differences in the test results by groups, by sex, and between groups. The data from the standardized tests were analyzed on three different types of computer programs. More personalized and subjective data were derived from a short questionnaire given to each of the 30 subjects at the

completion of the entire process and analyzed by the statistical binomial test for differences in proportions.

On the basis of these results, four hypotheses were accepted and six were rejected. It was concluded that the Old Masters Art Collage art technique can produce demonstrable change in self-perception.

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Chapter 1

THE OLD MASTERS ART COLLAGE AS AN INSTRUMENT OF LEARNING ABOUT ONESELF

Statement of the Problem

The purpose of this study is to determine the effect of a specific projective art technique on an individual's self-perception.

The Old Masters Art Collage was created for use in classrooms and workshops where personal growth and discovery was the focus, by Senior Associate of the Palo Alto Psycho-synthesis Institute, Tom Allen. Until now the Old Masters Art Collage (OMAC) has not been formally tested as a technique for eliciting change in self-perception. Mr. Allen has given both permission and encouragement to test its results experimentally and write them up as a Masters Thesis.

This lack of a formally based structure is characteristic of the multiplicity of art techniques currently used in individual and group psychotherapy settings. As a result, there is today a drive by many serious art therapy practitioners to institute experimental testing, in order to establish more understanding of the various therapeutic results obtained with the increasing number of media and techniques. Dr. Ernest Harms (1895-1974), as a psychiatrist and Editor-in-Chief of the International Journal of Art

Psychotherapy, writes of this situation:

Although what we designate today as art psychotherapy has, in some form or other a two-hundred year history, it has not as yet been consolidated into carefully developed and adjusted techniques . . . We need to develop from the bottom up, a solidly confirmed scientific field of art psychotherapy. (Winter, 1973, p. 1)

Background of the Problem

The creative expressions of normal and abnormal individuals have, since the beginning of the modern era of psychological investigations, been used to identify mental conditions. Early psychiatrists like Emil Kraepelin (1856-1926), and Eugen Bleuler (1857-1930), used drawings and handwriting samples of their mentally deranged patients for diagnostic purposes.

The interconnected problems of how mental health and artistic creation are related, and how fantasy, images, and symbols function in both dreams and works of art, have long been debated. Like many psychological connections having to do with the unconscious, the issues were first studied and written about at length by Sigmund Freud (1856-1939), who was much intrigued by the phenomenon of the creative artist. He considered that the writer's ability to fantasize and the painter's ability to produce powerful visual symbols (i.e. "great art"), were related to the symbolic image-making process of dreaming, and that both were products of neurotic repressions of sexual material

into the unconscious (Freud, *Collective Works*, Vol. IX, 1960).

A classic of ex-post facto artistic psychoanalytic literature, Freud's (1910) study of Leonardo da Vinci, demonstrates the author's attempts to relate the artistic production of one of the Renaissance' greatest geniuses to an aborted psychosexual development in which Oedipal relationship to his natural mother was never resolved. Based on selected paintings intertwined with fragmentary childhood memories found in notebook jottings, Freud's study though masterfully presented, was not able to support its thesis due to its author's lack of art historical facts. Schapiro (1956), art historian, scholar and critic, undertook an indepth investigation of Freud's analysis forty-six years after its publication and was able to point out the factual errors as well as some methodological shortcomings of psychoanalytical procedures when used in historical investigations of people as well as works of art. Schapiro quotes Ernest Jones, pupil and biographer of Freud, who comments of his master's venturing into art history that in his conclusions about Leonardo, Freud "was expressing conclusions which in all probability had been derived from his self-analysis and are therefore of great importance for the study of Freud's personality" (Schapiro, 1956, p. 178). With the broad general principle of being able to discover much about an artist by studying his work, Schapiro agrees:

"The intimate personality of the artist which lies hidden behind his work, can be divined from his work with more or less accuracy." (Schapiro, 1956, p. 173).

Carl Jung (1875-1961), Freud's contemporary and founder of the school of Analytical Psychology, continued Freud's interest in the problems of artistic creation and contributed a reinterpretation of Freud's theories about art. For Jung, the repressed material of both dreams and artistic creation was not pathological. The symbols and images surfacing in both represented the potential source of healthy personality integration, stored away by the individual in his unconscious. These powerful yet ambiguous factors represented the psychological machinery which transmit energy from one layer of the psyche to another. Rather than being some sort of sign which disguises something already known, Jung felt that symbols located below the level of man's conscious mind, were natural and spontaneous products of both the personal and the collective unconscious. They appear in dreams not as meaningless or stupid images, but as means of elucidating (as do analogies) something still unknown or in the process of formation (Jung, 1964, 1966).

Of our contemporary highly intellectual and rational approach to personal, natural and technological problems Jung comments:

Modern man does not understand how much his 'rationalism' (which has destroyed his capacity to respond to numerous symbols and ideas) has put him at the mercy of the psychic 'underworld.' He has freed himself from 'superstition' (or so he believes), but in the process he has lost his spiritual values to a positively dangerous degree. His moral and spiritual tradition has disintegrated, and he is now paying the price for this break-up in world-wide disorientation and dissociation. (Jung, 1964, p. 94)

These two views put forth by Freud and Jung regarding art and its creators, stem from a very ancient dual-branched tradition flowing through Mediterranean and Western civilization. Soothsayers and magicians, oracles and visionaries have long been revered, as well as feared, for their special sort of supernatural power. For the Greeks, musicians and poets were considered to have a close connection with unseen forces called Muses. Their special talents were considered to be close to those of the philosopher, and all, in turn, with the gods themselves. At the same time, painters and sculptors were carefully separated off from the other creative artists whose material was less corporeal. Visual artists were classed as mere artisans, often coming out of the slave class. It is likely this distinction had a connection with the primitive notion that representational images carry special magical potency within themselves, and that he who possesses such an image, possesses special power over that which it represents.

Both the Hebrew and Mohammedan cultures reflect the Eastern taboo against visual iconic representations.

In Judeo-Christian history, the interdict continues both through the written word forbidding graven images in the Old Testament, and later in the eighth and ninth century period of Byzantine iconoclastic destruction, where wanton annihilation of religious representational art was carried out by Imperial order (Kris, 1965).

Reflecting this suspicion of, and bias against, the artistic person who lives to create rather than to intellectualize, the Russian psychologist Ivan Pavlov (1849-1936) in a speech presented to his native Academy of Sciences one year before his death, rephrased primitive man's position in modern scientific terms:

Now, gentlemen, let us turn to the following question. When we analyzed the nervous patients in the neurological clinic, I came to the conclusion that there are two specifically human neuroses--hysteria and psychasthenia; I related this conclusion to the fact that man offers two types of higher nervous activity, namely, the artistic type, consequently analogous and close to that of animals, which also perceive the external world in the form of impressions exclusively and directly by means of receptors, and the other, intellectual type, which functions with the help of the second signaling system. Thus, the human brain is composed of the animal brain and of the purely human part relating to speech. It is this second signaling system which is beginning to prevail in man. It can be assumed that under certain unfavorable conditions, when the nervous system is weakened, this phylogenetic division of the brain takes place anew; then probably one individual will use predominantly the first signaling system while the other will use predominantly the second signaling system. And it is this that divides men into artistic natures and purely intellectual abstract natures. (Kris, 1965, p. 589)

Against this highly rational intellectual statement

about what the human being should ideally aim toward, is Jung's comment regarding his valuing of man's ability to create fantasies.

It is in creative fantasies that we find the unifying function we seek . . . All the functions that are active in the psyche converge in fantasy. Fantasy has, it is true, a poor reputation among psychologists, and up to the present psychoanalytic theories have treated it accordingly. For Freud as for Adler it is nothing but a 'Symbolic' disguise for the basic drives and intentions . . . although fantasy can be casually explained and devalued in this way, it nevertheless remains the creative matrix of everything that has made progress possible for humanity. (Jung, 1966, p. 290)

In the increasingly humanistically-oriented nineteen-seventies there is emphasis on the use of art work with healthy normal clients seeking ways of learning about themselves in order to grow.

Mary Lee Hodnett, Professor of Art at the University of Texas, writing of the therapeutic power for both pathological and healthy people, and for the need for more trained therapists in the field says:

Art therapy, a synthesis of art and psychology, should be first of all considered as a form of psychotherapy which has unique potentialities for personality support and enhancement. The field extends from locked psychiatric wards across a broad range of less severe psychotic levels, from deeply neurotic through mildly neurotic persons and into school classrooms. There is no way of knowing how many people could be helped to fuller, richer, more interesting lives through the arts since opportunity for finding this out has never been possible. As yet art therapy is too small and incomplete both in theory and in numbers of informed people who could tackle the job systematically. (1973, p. 75)

Margaret Frings Keyes, a San Francisco therapist who uses art therapy as one of her major tools for both individual and group work in private practice, says of the special function of art as psychotherapy:

Art therapy does not answer the questions. It only provides a process to clarify and deepen the questions, an awareness of how the individual here and now participates in creating his life conditions, and it points to some options that might be chosen. (1974, p. 4)

Significance of the Problem

It would seem from the increasing bulk of literature on the subject, that the general philosophical set regarding the place of art and the creative personality has shifted in psychological valuing. Today's view of the role of art and its potential therapeutic place has shifted from pathological diagnosis to integrative healing. Moving from the pre-Freudian and traditional psychoanalytic concept in which both art and creative artists were viewed as exciting but slightly suspect when placed on a continuum of the rational, sane and stable social order, today's increasingly humanistic psychology has in part returned to a much earlier, even primitive, viewpoint.

Utilizing recent neuro-surgical findings on the two distinct functions of the right and left brain hemispheres as an indisputable point of departure, psychologists today tend to recognize the need to recapture a more balanced

relationship between the intellectual, rational way of thinking and the intuitive, acausal one. Robert Ornstein in The Psychology of Human Consciousness (1973) discusses the research of Joseph E. Bogen and G. William Domhoff, which showed through a variety of experiments that the civilization of Western man has been dominated by a reliance on the left side of the brain. It is this hemisphere which controls lineal thought, the right hand, speech and logic, and analytic cause and effect processes. The right brain hemisphere which controls receptive and non-lineal intuition, the left hand, diffuse and simultaneous gestalt perceptions, and creative processes in general, has until recently been neglected in Western civilized man's quest for scientific progress. In the West where many different occupations and disciplines involve a concentration on verbal logic and lineal reasoning, science and law have been emphasized at the expense of the more intuitive human mental involvements.

In the last chapters of his book, Ornstein discusses a variety of methods for activating these neglected right hemisphere functions. Sufism, zen, yoga, and various forms of meditation (disciplines long cultivated in the Eastern world) are presented as modes of discipline which need to be understood and adopted by Western man in order to achieve a healthier balance of consciousness. In order to avoid further unintentional ecological and social crises, spawned through an over-reliance on scientific thinking, Ornstein

recommends re-integrating the total human consciousness through actively seeking to integrate the polarities provided by the two hemispheres of the human brain (Ornstein, 1973b).

Prior to these recent neuro-physiological discoveries, a vanguard of scholars, thinkers and writers from a variety of fields had already begun to set forth ideas in opposition to the traditional scientific mode. For these people, somehow the artist stood out as the new hero. His creative thinking rather than that of the traditional solver of social and industrial problems became the focus of a whole new literature.

The genius of Albert Einstein was found to be somehow akin to that of the artist, for Einstein was quoted as describing his thought processes as being a kind of "combinatory play" involving "certain signs and more or less clear images," either visual or muscular, the results of which he then translated laboriously into words and abstract signs capable of being communicated (Arnheim, 1966, p. 287).

Devoting several books to the problems of perception, the nature of images, and visual thinking, psychologist Rudolph Arnheim, who has chaired both the American Psychological Association and the American Association for Aesthetic Philosophy, speaks of his conclusions regarding the importance of visual imagery in all productive thought.

My earlier work taught me that artistic activity is a form of reasoning in which perceiving and thinking are indivisibly intertwined . . . (an artist thinks with his senses . . . A review of what is known about perception, and especially about sight, made me realize that the remarkable mechanisms by which the senses understand the environment are all but identical with the operations described by the psychology of thinking. Inversely, there was much evidence that truly productive thinking in whatever area of cognition takes place in the realm of imagery. (Arnheim, 1969, p. 3)

As Arnheim sees it, through art man counteracts the impoverishments of vision that result when any one of the levels of reality is viewed in isolation of others, and thus, ability to synthesize in conception which Arnheim calls true human wisdom (Arnheim, 1966).

Sir Herbert Read distinguished British scholar, writer, critic and philosopher, presents his long life's thesis that the entire course of human civilized history grows out of man's capacity to retain and develop the perceptual image inside his consciousness; from this is derived the faculty to erect the basis of an intelligence specifically and uniquely human. For Read, art has been and still is the essential instrument in the development and unfolding of human consciousness (Read, 1955).

Jerome Bruner (1962) in his little book, On Knowing: Essays for the left hand, speaks of this curious Western dichotomy between the art of creation and the science of order and fact.

Since childhood, I have been enchanted by the fact and symbolism of the right hand and the left--the one

the doer, the other the dreamer. The right is order and lawfulness, le droit. Its beauties are those of geometry and taut implication. Reaching for knowledge with the right hand is science. Yet to say only that much of science is to overlook one of its excitements, for the great hypotheses of science are gifts carried in the left hand. Of the left hand, we say that it is awkward and, while it has been proposed that art students can seduce their proper hand to more expressiveness by drawing first with the left, we nonetheless suspect this. The French speak of the illegitimate descendant as being a main gauche, and though the heart is virtually at the center of the thoracic cavity, we listen for it on the left. Sentiment, intuition, bastardy. And should we say that reaching for knowledge with the left hand is art? (Bruner, 1962, p. 2)

Working the other way from this, the Swiss psychiatrist Herman Rorschach (1884-1922) proceeded from the unprecise dreamlike qualities of art to knowledge of a clinical and psychological value when in 1911 he combined his interests in perception, art and clinical psychology into his now-famous "inkblot" diagnostic tool. The projective and interpretive findings from the Rorschach test by now have become standard operating procedure in the clinical setting.

In 1935, Dr. Henry A. Murray (1893-) developed at the Harvard Medical School Clinic a second projective diagnostic test which utilizes art to elicit psychological knowledge about a patient's inner psyche. The Thematic Apperception Test, commonly "TAT," consists of twenty cards which contain pictures suggesting human situations to which the patient responds with a verbal story. Though Rorschach's

inkblots are abstract forms and Murray's TAT pictures represent figures and situations, in each case it is the carefully trained therapist who must finally interpret what the patient's mind reveals by his reaction to the visual stimuli. Today both the Rorschach and TAT are widely used as standardized tools for diagnostic purposes. Only these two have been unreservedly adopted into the standard office equipment of clinical psychologists, although a multitude of other art therapy techniques have been developed by the many therapists who use art in their psychotherapeutic practice. This is partly because there is great difficulty in devising ways of standardizing artistically based tests, and partly because of the traditional suspicion felt by the world of science toward the world of art.

The specific art therapy technique--the Old Masters Art Collage--presented in this study, grows out of the increasing body and variety of psychotherapeutic methods which involve imagery, art and fantasy. These are being used experimentally in hospital, university and growth center settings.

The specific study presented in this paper grows out of the increasing body and variety of psychotherapeutic methods which involve imagery, art, and fantasy. These are being experimentally used in hospital, university and growth center settings.

The Old Masters Art Collage technique is one of the

experimental techniques used by the Palo Alto branch of the Psychosynthesis Institute. Psychosynthesis, as an inclusive approach to human personality and growth, involves a comprehensive psychological and educational view of the holistic personality. Around 1911 Italian psychoanalyst Roberto Assagioli (1888-1974) publically began to present findings and theoretical material derived from his psychoanalytic practice and studies. Though one of the pioneers of Freudian psychoanalysis in Italy, Assagioli came to feel that Freud had not given sufficient weight to a holistic view of the human animal (Assagioli, 1971).

The very name "Psychosynthesis" indicates its founder's wish to place his theories and beliefs in complement to Freudian psychoanalysis. His system works to integrate therapeutically the aesthetic and intellectual dimensions of holistic personality. His methods give special attention to the underdeveloped intuitive sense of Western man. The practice of Psychosynthesis has today concentrated on developing and refining a more inclusive concept of man, drawing from new discoveries and developments in education, psychology, anthropology, physiology and transpersonal psychology (Ornstein, 1973b).

Assagioli's European published work is vast. Recently published works in the United States include two Viking-released books, Psychosynthesis: A Manual of Principles and Techniques (1971), and The Act of Will (1973).

Chapter 2

REVIEW OF THE LITERATURE

The Old Masters Art Collage has never been tested or published so that no literature exists specifically on it or how it functions as art therapy. This review of literature will then, be restricted to traditional art therapy, along with the concept of using great art as providing the means for therapeutic change.

In order to understand the theory underlying the OMAC's usefulness, it is necessary to look at how it differs from traditional art therapy in both its less personal material media, and its more personal heuristic process. As a part of "the process," it is useful to explore some of the literature dealing with the psychology of perception, and with other literature concerned with the role of artistic perception in the evolution of civilization.

Traditional Art Therapy: Patient and Therapist

The usual concept of art therapy involves the patient and therapist working together--one supplying, the other interpreting. When a patient in therapy records through visual art or reactive verbal material his affective state, he experiences indirect expression of otherwise inexpressible or unknown feelings. These may be too

ambiguous or too frightening to recognize consciously (Progoff, 1959). The therapist helps the patient discover what these feelings are and to find ways to deal with them. When a patient is asked to react to the pictures from the TAT or Rorschach, a therapist interprets what his reactions mean, and can share as much or as little as appropriate with the patient. "Art work has been shown to be useful in diagnosis of patients and as a mode of treatment when used as a vehicle of verbalization of affective responses or the development of understandings about one's self" (Fink, 1973, p. 17).

In both traditional forms of art therapy, the patient himself learns little or nothing from his own responses--in fact since he supplies the material from inside himself which he himself does not understand, he may often feel exposed, mystified or threatened (Crampton, 1974).

Psychoanalyst Karl Jaspers, writes about the healing process that takes place in psychotherapy:

. . . Self-illumination is a precondition for meaningful and effective attitudes towards oneself . . . This process of clarification in the shape of the self-revelation of an individual extends far beyond what may be accessible to any psychotherapeutic plan. It carries one on into the philosophical realm of individual growth of a self . . . There is a valid and unavoidable demand for self-illumination: The only question is how can this be achieved and whether the direct help of someone else is necessary, someone who will lay bare the psychic recesses for a professional fee. (Jaspers, 1963, Pp. 19-38)

The OMAC differs from traditional art therapy in

that great art created by others--rather than art works created by the patient--serves as the vehicle for stimulating self-awareness. This emphasis on the patient himself becoming his own teacher in the process of self-learning arises out of an increasing insistence by humanistic psychologists that the intrinsic nature of the human organism is to seek health rather than pathology, and that the seeds of healing lie inevitably within the patient rather than in any outside therapeutic source (Rogers and Stevens, 1967; Maslow, 1968; Perls, 1969).

In Humanistic Psychology today the emphasis is placed on the therapist's role as midwife to, rather than creator of, therapeutic change in the patient. The therapist serves as a catalytic agent in the patient's search to discover the hidden unconscious dynamics lying beneath his outward, observable behavior. Once exposed, the patient's task is, with the help of the therapist, to integrate these powerful forces of personality into a smoothly interacting totality (Progoff, 1959). "The new holistic sense of depth psychology is not conceived in terms of the malformations of personality but rather in terms of what man's nature requires him to become." (Progoff, p. 6)

Great Art as a Source of Therapeutic Change

As a valid art therapeutic technique growing out of Assagioli's theories of Psychosynthesis, the OMAC's emphasis

is on heuristic discovery and the use of great art's ability to create powerful universal symbols capable of reading responsive chords in the viewer. Of this ability of artists, Freud (1910) says:

Kindly nature has given the artist the ability to express his most secret mental impulses, which are hidden even from himself, by means of the works that he creates; and these works have a powerful effect on others who are strangers to the artist, and who are themselves unaware of the sources of their emotions. (Freud, 1910, p. 84)

And in a later writing:

The artist is an ally of the psychoanalyst for he draws on sources not yet opened to science, and from time immemorial has been the precursor of science. (Freud, Col. Works, V. 9, p. 44)

The major difference in using great works of art rather than one's own fumbling expressive attempts to uncover inner emotive material, lies in the fact that the subject himself, by making choices about what art masterpieces appeal to or repel him, is theoretically able to learn something for himself about himself. That is, by concentratedly trying to match up the power between the symbols and images of great art works and his own inner storehouse of symbols and images, new insights are uncovered. This way he heuristically has discovered something about himself; no one else has quite the same access to his personal symbols; no one else needs to interpret to him. By using both his aesthetic-intuitive faculties and his cognitive-intellectual faculties, an individual is able to

get in touch with the unconscious factors which control his emotional responses without reliance on a therapist.

Jung (1967) comments regarding this process:

. . . looking, psychologically, brings about the activation of the object; it is as if something were emanating from one's spiritual eye that evokes or activates the object of one's vision . . . The English verb, to look at, does not convey this meaning but the German 'betrachten,' which is an equivalent, means also to make pregnant . . . So to look or concentrate upon a thing, 'betrachten,' gives the quality of being pregnant to the object. And if it is pregnant, then something is due to come out of it . . . one concentrates upon it, and then finds that one has great difficulty in keeping the thing quiet, it gets restless, it shifts, something is added, or it multiplies itself; one fills it with living power and it becomes pregnant. (Jung, 1967, from Crampton, 1974, p. 10)

Dr. Clemens E. Benda (1961) enlarges upon the special abilities of the great artist as opposed to the art works turned out by either the layperson or the psychotic as they attempt to express the inexpressible within them.

The great artist represents the rare combination of strong unconscious drives with a strange power of controlled and mature integration of experience and the ability to express such order in symbolic forms of painted imagery. (Benda, 1961b, p. 101)

The OMAC differs from traditional forms of art therapy in that the individual involved in this Psycho-synthesis-based technique is encouraged to do his own interpretation and integration. Instead of creating his own art forms, or verbalizing to a therapist about pictures specifically created for a standardized test, the subject works with great artists' pictures which have special meaning for him. Martha Crampton (1974), Director of the

Canadian Centre for Psychosynthesis, describes this form of art therapy technique as "psychagogic" rather than therapeutic, i.e., as an unfolding growth rather than an elimination of undesirable traits (Crampton, 1974, p. 29).

For Assagioli (1971), intuition is conceived of as a sort of "psychic organ" by which situational or psychological reality can be apprehended holistically in a cognitive manner. According to Assagioli's theory of psychosynthesis, apprehension through intuition is a synthetic process in that the totality of a given situation is grasped directly rather than analytically, as occurs in intellectual or rational apprehension. Although largely uncultivated in the Western world, intuition is a normal function of the human brain, and for healthy integration of the whole psyche, Assagioli feels intuition needs to be activated. This can be accomplished through eliminating the various obstacles preventing its activity, and one way of accomplishing this is through getting in touch with the variety of unconscious forces which have been blocking it off from active functioning. The exercises employed in Psychosynthesis for doing this include all forms of art, since in art exists the symbols and images also present in man's unconscious.

The insight provided by the OMAC is self-generated, rather than provided by another's interpretation. It represents primary rather than secondary process learning.

The individual supplies for himself the "Ah-Ha" experience, and in the process learns heuristically through communicating with great works of art which he chooses as having special meaning for him. As Kris (1956) views it, all art is a form of communication--the artist is the sender, his creation is the message, the viewer is the receiver and puts his own stamp then on the whole communication process.

Communication lies not so much in the prior intent of the artist as in the consequent recreation by the audience of his work of art. And re-creation is distinguished from sheer reaction to the work precisely in the fact that the person responding contributes to the stimuli for his response. (Kris, 1956, p. 254)

Heuristic Learning in Art Therapy

The importance of heuristic learning as opposed to simple actual of knowledge has only recently become a focus of researches conducted on learning as a psychological process. It has been found that in order for an individual to really learn something "new," he needs to have some sort of prior connection--no matter how small or far-fetched--to the new material, so that he can make a meaningful transfer between what is already familiar and what is as yet unknown and irrelevant. In every addition of new material from the outside, the individual himself supplies a vital inner germ upon which genuine integration into his person can take place. Information acquired simply through memorization may be useful for specific purposes or for a specific time span,

but only when learning occurs as a joint process between inner and outer--when it is actually self, or heuristic learning--is its value lastingly integrated into the individual as a part of himself. Of the application of this sort of self-knowledge to the process of psychoanalysis, Benda (1961) says:

Today we have come to understand that the ego which is the object of analysis is not the self which is eternally in a state of becoming and therefore, an absolute subject which cannot be objectified and autopsied. Only now do we know that psychoanalysis does not provide self-awareness or self-consciousness.

All knowledge depends upon comparison. All conception is 'in-ception' of otherness into the receptacle in which it is developed: The germ in the womb; knowledge in the mind. Conception is thus the union of heterogeneous elements. "Con-consciousness" is to know something along with something else. What is taken in is confronted and compared with what is there already; what is there is exposed and in contact with what is taken in. Thus, the focus of attention or consideration shifts from one to the other . . . All conscious knowledge, whether gained through the intuitive vision of imagery or through the process of conceptual thinking, involves knowing something against the background of something else, recognizing the sameness and the otherness in acts of comparison and synopsis. (Benda, 1961a, p. 147)

The Jungian Psychoanalyst Perry (1973) suggests that the process of psychological growth and sequential stages of emergent wholeness can, through temporary withdrawal of the ego functions and the emotional complexities of everyday life, be induced by heuristic learning from inner symbolic affect-images. Seeing potential renewal of the self as being a mutual process of reorganization and rebuilding, Perry believes self-generated creative symbols

and images provide the psychodynamic energy necessary for both breaking up previous patterns of self-organization and for their transcendence into more integrated and fully functioning vitality. For Perry this transformation takes place at conscious, intellectual, and unconscious, intuitive levels of awareness and synchronization.

The Steps of Heuristic Learning

The heuristic learning process experienced in the OMAC involves four sequential and different mental functions. Using Bogen's (1969) concept of the "appositional mind" as it fosters two modes of consciousness in the human brain, the process of OMAC could be described in terms of bi-polar, complementary right and left brain modalities.

In the first step, which involves the subject's selection of personally meaningful art works, the right hemisphere would be exercising its powers of visual, aesthetic, or gestalt perception. In the second, which involves the subject's seeking to understand the reasons of his selection, the left hemisphere proceeds logically to analyze and compare specifics involving images of the art works and symbolic images lodged within the self. In the third step, both right and left hemispheres would seem to be involved for the subject at this point synchronistically and non-verbally integrates the logical analytic connections into a conscious understanding. In the final step, the

left hemisphere is involved in pulling together the inner-perceived conclusions and integrating them linguistically as newly formed self-perceptions through verbalization aloud. Charting of recent researches on right and left hemispheres of the brain are developed by Ornstein (1973b, p. 111).

Perception's Role

Since one of the basic differences between the therapeutic--or psychagogic--process of the OMAC and that of traditional art therapy involves visual and aesthetic perception, something needs to be said about the literature having to do with perception as a physical and as a gestalt process.

Jean Piaget one of the early clinical psychologists who worked to discover the various stages of child development, has contributed much knowledge in the field of early perception in infants (1930). According to Piaget's findings, visual perception as demonstrated by newborn and very young children, is simple retinal perception of the thing itself. The basic dualism between thing and idea (or gestalt) is not inherent in basic human functional (or biological) perception. Klein (1930), pupil of Freud, in her extensive psychoanalytic work with children finds similarly that:

The child's earliest reality is wholly phantastic . . . that things animate and inanimate are to begin with equivalent to one another, and only gradually as the ego develops is a true relationship to reality established out of the infant's unreal reality! (Klein, 1930, p. 26)

Kellogg (1969) concludes from her extensive observation of preschool children from all over the world, that every child discovers anew and for himself universal modes of graphic gestalt, from which he then, in turn, derives his own unique ways of perceiving. Gombrich (1968) sees this process as taking place somehow as a dual experience in which one's expectation, derived from past experiences, creates illusion so that one's unique gestalt patterns become formed as a product derived out of biological retinal inheritance and individual experiences.

In his two books dealing with art and with physiological and aesthetic perception, psychoanalyst Ehrenzweig (1953, 1967) devotes much space to gestalt psychological principles, which conceive of perception in terms of a "figure-ground" situation. According to gestalt psychological thinking, an individual sees, that is, perceives meaning, for himself by assigning significance and non-significance to what in terms of mere visual stimuli could be described as ambiguous patterns. Whatever has meaning for an individual emerges as "figure" against whatever has no meaning, and consequently assumes that position of mere background to support or surround the figure. Ehrenzweig

also states:

. . . concrete thing perception comes earlier in human development than the awareness of a generalized abstract gestalt . . . Thing perception, has to be firmly established before analytic awareness of abstract pattern come into its own around the eighth year of life. (Ehrenzweig, 1967, p. 18)

This relational connection between simple primary-functioning of retinal perception and the concept of secondary gestalt perception is discussed at length in the Mandler and Mandler edited book (1964), Thinking: From Association to Gestalt.

Bruner (1947), working in an experimental clinical setting found individual perceptual patterns to vary according to determinants of the moment--i.e. pain, hunger, tiredness, being in love, etc. These determinants he sees as of two kinds: (1) Autochthonous, which reflect the characteristic electrochemical properties of sensory organs and nervous tissues, and (2) Behavioral determinants, which represent the individual personal dynamics of repression, attitudes, needs and quasi-tempermental characteristics like introversion and extraversion.

What the organism sees--what is actually there, perceptually--"represents some sort of compromise between what is presented by autochthonous processes and what is selected by behavioral ones. (Bruner and Goodman, 1947, p. 35).

Arnheim (1966), in treating the problem of

subjectivity in perception speaks of there being two kinds of attribution that occur:

- (1) an organized pattern is attributed to the given stimulus, as when four lines are seen as a rectangle;
 - (2) the perceived pattern is seen as an image of another object, e.g. the rectangle as a familiar geometric figure or as a window or a brick . . . The two processes influence each other. The perceived pattern will determine what object is seen.
- (Arnheim, 1966, p. 91)

In a later work, Arnheim (1969) carries his theory further, making a case for the strengthening of visual thinking as being an important stimulus to useful cognitive process. Arnheim points out the historical fact that the ancient Greek philosophers, Plato and Aristotle (who in many ways helped to determine Western scientific thought and development), understood the dichotomy between perceiving with the senses and reasoning with the mind. They . . . learned to distrust the senses . . . still they never forgot that direct vision is the first and final source of wisdom. They refined the techniques of reasoning, but they also believed, in the words of Aristotle, 'the soul never thinks without images.'

(Arnheim, 1969, p. 12)

Artistic Perception as Civilization and Healing

Conceiving of artistic vision as both a function of mature perception and the main source of the human achievement entitled Civilization, Lewis (1966) edited a small volume gathering together the speeches of distinguished contributors to the 1965 Conference on Children's Art in Berkeley. The book titled Child Art: The Beginnings of

Self-Affirmation includes Sir Herbert Read's comments on art as supplier of values for civilization through symbolic language. Otherwise inexpressed feelings and intuitions of past eras are communicated by art, which except for its unique power would be lost. It is the ability to communicate deeply and nonverbally that distinguishes art from any other human activity. In discussing how the symbolic elements contained in art develop out of the infant consciousness, which perceives as primitive primary function, (Read sees the simple visually perceived objects of early childhood as being taken in, or internalized) as archetypal forms. In preparation for adult consciousness, to develop and eventually to express itself at a higher level,

. . . these archetypes sink below the level of consciousness, where they exercise an unconscious control of our modes of imagination and thought. They are the patterns and moulds into which our feelings and fantasies automatically fit . . . These archetypes are not themselves phantasms: they are real things, built-in structures that give direction to our mental activities, and more significantly . . . give structure to our amorphous feelings. Such structured feelings we call works of art. (Read, 1966, p. 29)

Dealing specifically with significant interconnected issues of the Humanities and Psychoanalysis, Freud's pupils, Drs. Otto Rank and Hanns Sachs issued in 1913 a classic study titled Psychoanalysis as an Art and a Science. In this work the unconscious and its forms of expression, myths and legends, religion, ethnology and linguistics, aesthetics, psychology of the artist, ethics

and the law were explored in terms of their relationship to human beings, to civilization and to the practice of psychoanalysis. Speaking of the importance of their joint-work, Rank-Sachs say:

The investigation of typical symbol forms and the restoration of their forgotten meanings by the collaboration of various assisting sciences (history of civilization, linguistics, ethnography, mythology, etc.) has scarcely been attempted as yet. (Rank-Sachs, 1964, p. 21)

According to Rank-Sachs one of the main requirements of a true work of art is that its affective effect is able to exert its unique influence beyond the limitation of the time and space within which it was created; that is, that its unique character contains universal foundations which, suppressed and re-created by the artist out of his unconscious, have the power to arouse, in those who see the work of art subsequently, similar affective reactions.

The artist's affective ideas must be so constituted that they perform the connection between conscious and unconscious in him, and what they perform at reproduction for the (viewer) namely discharge and gratification by phantasy of the unconscious . . . (is) common to both. (Rank-Sachs, 1964, p. 102)

Dr. Harry Slochower, who edited and reissued the Rank-Sachs volume in 1964, adds his own essay which he titles "Applied Psychoanalysis as a Science and as an Art." The practice of psychoanalysis is seen as an attempt to get at the truth of an individual self. The aims of both Science and Art are also to reach Truth--science seeking to do so through applying the intellect to observable facts,

and art seeking the same end via irrational, unconscious and anti-intellectual methods. Of the therapeutic process embodied in psychoanalysis, Slochower says:

Cure is not effected merely by intellectual comprehension (intellectualization is, indeed, often a 'defense') but primarily through emotional perception and affective living through of earlier traumatic experiences . . . Psychoanalysis, like art, replaces an abstract conceptual dialectic by a material-contentual dialectic which aims to uncover the dynamics of emotion without pretending to offer final formulas. (Slochower, 1964, p. 127)

It would seem that the Old Masters Art Collage as an art therapy technique might be viewed as fitting into this concept of the emotive power latent in great works of art. The viewer, or subject taking part in the OMAC, making full use of his unique gestalt perceptual powers makes a connection between the artist's visual symbolization and his own psychic images and symbols which match up with repressed emotions buried below the level of his consciousness. In his making the connection between art symbols and his own inner being, the individual is able to release for himself curative forces of both healing and psychic growth.

Reflecting the need for more of this sort of interdisciplinary research Bruner (1947) concludes his writeup of an experiment on perception conducted in the clinical laboratory, with a plea for research by other people than

. . . Experimental psychologists with a capital 'E'
. . . if we are to reach an understanding of the way in which perception works in everyday life, we social

psychologists and students of personality will have to join with the experimental psychologists and re-explore much of this ancient field of perception whose laws far too long have been taken for granted. (Burner, 1947, p. 43)

Chapter 3

DESIGN AND PROCEDURES

Specific Statement of the Problem

The purpose of this study is to determine whether or not a specific art therapy technique titled the Old Masters Art Collage supplies measurable change in self-awareness on a standardized personality inventory.

Hypotheses to be Tested

This study proposes to answer the following questions stated in terms of the Null Hypothesis.

H₁: There will be no significant difference between combined (Control/Experimental) Male pre test scores and combined Female pre test scores.

H₂: There will be no significant difference between combined Male post test scores and combined Female post test scores.

H₃: There will be no significant difference between Control Group Male and Female pre test scores.

H₄: There will be no significant difference between Control Group Male and Female post test scores.

H₅: There will be no significant difference between Experimental Group Male and Female pre test scores.

H₆: There will be no significant difference between Experimental Group Male and Female post test scores.

H₇: There will be no significant difference between Control Group scores for pre and post tests.

H₈: There will be no significant difference between Experimental Group scores for pre and post tests.

H₉: There will be no significant difference between Control Group and Experimental Group scores of pre tests.

H₁₀: There will be no significant difference between Control Group and Experimental Group scores of post tests.

General Methodology

The plan for the experiment is to use the format of Test-Intervention-Test. Specifically the steps are:

1. The group of thirty students will be divided randomly into two groups of fifteen, one serving as the Control, the other as the Experimental Group.

2. Both Control and Experimental Groups will be given the standardized POI personality inventory during class time.

3. The Experimental Group on the following day will be given the OMAC as an intervention procedure. The Control Group will receive no intervention procedure but proceed with their normal school day.

4. The following week, in regular class time, both Control and Experimental Groups will re-take the personality inventory.

5. Following the completion of the post-test personality inventory, both Control and Experimental Groups will be given a short questionnaire evaluating the total experience for each individual.

Analysis of Data

Data from the study will be analyzed by means of three separate Computer Programs, using the computer at Cal-State Hayward's Campus Data Center, CDC 3150. Also, a standard statistical binomial test for differences in proportions will be used to analyze results obtained from the short questionnaire. The computer programs will analyze the results of the standardized POI tests.

Computer Program I, ST 1332, a three-way analysis of variance with repeated measures (Winer, 1962), will analyze the 180 separate Male and Female scores, by Sex and Group, for each of the four different pre and post tests. The 180 individual scores are derived from the 12 POI scales for each 15-subject Group.

Computer Program II, TINDEP, a t-test for independent groups, will analyze the 180 separate scores by Groups and by pre and post tests, regardless of sex.

Computer Program III, CORPAIR, a t-test for correlated groups, will analyze the 180 separate scores by pre and post test for each group, regardless of sex.

The standard measurement of means, standard

deviations and differences in the means will be compared. The F statistic will be used to test the three hypotheses dealing with Male-Female differences. The T statistic will be used to test the four hypotheses dealing with Control-Experimental Group, and pre-post test differences.

Population Sample

The subjects for the study are 30 male and female students ranging in age from 15 to 17, from two Psychology classes at Mt. Eden High School, Hayward, California.

Located in Southern Alameda County, the ethnically-mixed century-old city of Hayward has a population of 100,000. The \$9,869. overall median income listed in the 1970 census is recorded as lowest for the six-city South Alameda area (Mills, 1970). In the Fall of 1974, the total school population was given as 23,271, divided among 32 elementary, 7 junior, and 6 senior high schools. The ethnic breakdown of schools is reported in 1974 as approximately 70 percent Caucasian, 20 percent Chicano, 7 percent Black and 4 percent Asian-American, with all four groups being represented in each school (Daily Review, 1974).

Hayward's Mt. Eden High School has a population of 2,000 students, ranging in background from the lowest to the high-medium socio-economic levels. The school's 1975 Spring records report that the ethnic breakdown reflects the integrated makeup of the city itself: approximately 72 percent Caucasian, 17.3 percent Chicano, 8.8 percent

Black, and 4.3 percent Asian-American.

Instruments Used

Three instruments will be used in this experiment:

- (a) Shostrom's Personal Orientation Inventory (POI),
- (b) the Old Masters Art Collage (OMAC), and
- (c) a short three-statement questionnaire.

A. The Personal Orientation Inventory was designed by Everett L. Shostrom, Director of the Institute of Therapeutic Psychology, in 1965 as an inventory of positive mental health. Positive mental health is reflected in the concepts of self-actualization developed by Abraham Maslow, who in 1967 noted that "there is today a standardized test of self-actualization . . . (which) can now be defined quite operationally" (Knapp, 1971, p. 1).

The 150 two-choice items of the POI reflect comparative judgments of values and behaviors seen to be of importance in the development of the self-actualizing person.

Such a person may be described as one who utilizes his talents and capabilities more fully, lives in the present rather than the past or future, functions relatively autonomously, and tends to have a more benevolent outlook on life than the average person. (Knapp, 1971, p. 1)

Although several investigations involving high school students indicate adolescents' POI scores to be generally lower than those of unselected adults, the choice of the POI for the present study seemed appropriate since its

non-threatening character, its emphasis on positive mental sets, and the wide variety of situations in which it has proved useful, suit it for administration in the public high school setting. The fact that the un-timed test takes on the average thirty minutes to complete also made it appropriate to give twice during the regular class period.

The 150 items of the POI are broken into four major scales and ten subscales. Two of the major scales define a time ratio, and two a support ratio. The two time ratio scales assess the degree to which one is reality-oriented in the present. The two support scales define relative autonomy by assessing the degree of balance between inner-directedness and outer-directedness. The ten subscales assess values and behaviors which are considered to belong in the healthy personality pattern.

Briefly, the two major scales of time and support ratio, and the ten subscales assessing values and behaviors are as follows:

1. Time scale (Tc) measures the degree to which a person lives in the here-and-now and how well the past, present, and future are integrated.
2. Support Inner-Directed (I) measures whether an individual's mode of reaction is characteristically "self" oriented or other oriented.
3. Self-actualizing value (SAV) measures the value of acting on one's own principles.
4. Existentiality (Ex) measures the ability to situationally or existentially react without rigid adherence to principles.

5. Feeling reactivity (Fr) measures sensitivity of responsiveness to one's own needs and feelings.
6. Spontaneity (S) measures freedom to react spontaneously or to be oneself.
7. Self-regard (Sr) measures affirmation of self because of worth or strength.
8. Self-acceptance (Sa) measures affirmation of acceptance of self in spite of weaknesses or deficiencies.
9. Nature of man (Nc) measures, degree of the constructive view of the nature of man, masculinity, femininity.
10. Synergy (Sy) measures ability to transcend dichotomies.
11. Acceptance of aggression (A) measures ability to accept one's natural aggressiveness as opposed to defensiveness, denial, and repression of aggression.
12. Capacity for intimacy (C) measures ability to develop contactful intimate relationships with other human beings, unencumbered by expectations and obligations.

B. The Old Masters Art Collage was developed as a group experimental exercise for use in Psychosynthesis workshops where the prime aim is to foster self-learning and holistic personality integration. Designed to be used by normal and healthy rather than disturbed people, the test reflects the ever-increasing Humanistic emphasis on enhancement of a healthy society.

The OMAC technique, to be administered to the Experimental Group only, is as follows:

Approximately 2,000 postcards of Old Masters art, borrowed from OMAC's creator, Tom Allen's collection, are

spread out on the floor.

Instructions given to the Experimental Group are in sequential steps, with each set of instructions being presented following group completion of the previous set.

1. "Select about 20 cards to which you have a STRONG response--both positive and negative. Your only criteria for choosing any card should be that you feel either strongly attracted by it or strongly repelled by it." (10-15 min.)
2. "Think about each card you have chosen, and try to discover why you were drawn to it. Arrange all your cards on the floor in front of you in a sort of meaningful collage representing your SELF. "Meaningful" assumes that there is some relationship between the total group of cards as they represent YOUR particular taste, and that this relationship can be visibly expressed by placement of the cards in a single format." (Appendix A) (about 20 mins.)
3. "Taking turns, verbally describe to each other your 'collage of self.' Be as honest and open as you are able to be. Each of you is free to ask questions of the other members of your triad." (about 15 mins. each person)

C. The short three-statement questionnaire is to be given to both Control and Experimental Group at the conclusion of the POI post-test (Appendix B).

Chapter 4

RESULTS OF THE STUDY

Presentation of Results

The purpose of this study was to determine whether a specific art therapy technique--the Old Masters Art Collage--could produce demonstrable change in self-perception when used as an intervention between two administrations of a standard personality inventory, the POI.

The experimental plan was to administer the OMAC only to the Experimental Group, rather than to both Control and Experimental Groups.

To check the hypotheses by Sex, comparison was made of the mean scores of Control against Experimental Group of Male and Female, within and between both groups.

To check the hypotheses by total Group regardless of Sex, comparison was made of the mean scores of both pre and post tests, regardless of sex, as well as mean scores of Control against Experimental Groups.

Since the POI value areas of self-actualization are measured on 12 separate scales, scores for comparison of each of the 4 tests (2-pre, 2-post), were obtained on each of these 12 scales.

Results presented for the hypotheses include: means, standard deviations, differences of means, and T-values for

the differences between means. From the results of the above the acceptance or rejection of the hypothesis was determined,

H_1 : There will be no significant difference between combined (Control and Experimental) Male pre test scores and combined Female pre test scores. On the basis of the data, H_1 was rejected.

H_2 : There will be no significant difference between combined Male post test scores and combined Female post test scores. On the basis of the data, H_2 was accepted.

H_3 : There will be no significant difference between Control Group Male and Female pre test scores. On the basis of the data, H_3 was accepted.

H_4 : There will be no significant difference between Control Group Male and Female post test scores. On the basis of the data, H_4 was accepted.

H_5 : There will be no significant difference between Experimental Group Male and Female pre test scores. On the basis of the data, H_5 was rejected.

H_6 : There will be no significant difference between Experimental Group Male and Female post test scores. On the basis of the data, H_6 was accepted.

H_7 : There will be no significant difference between Control Group scores for pre and post tests. On the basis of the data, H_7 was rejected.

H_8 : There will be no significant difference between

Experimental Group scores for pre and post tests. On the basis of the data, H_8 was rejected.

H_9 : There will be no significant difference between Control Group and Experimental Group scores of pre tests. On the basis of the data, H_9 was rejected.

H_{10} : There will be no significant difference between Control Group and Experimental Group scores of post tests. On the basis of the data, H_{10} was rejected.

On the basis of the results obtained from the statistical analysis, four of the Null Hypotheses were accepted since there was found to be no significant differences between: combined Male scores and combined Female scores for pre and post test scores; Control Group Male and Female pre test scores; Control Group Male and Female post test scores; and Experimental Group Male and Female post test scores.

On the basis of the results obtained from the statistical analysis, the Null Hypothesis was rejected on the other six hypotheses. Significant change in the scores was demonstrated on seven of the POI scales. These scales were: Support; Inner-Directed; Self-Actualizing; Existentiality; Feeling Reactivity; Spontaneity; Self-Regard; and Self-Acceptance.

Table 1 summarizes the results of the research analysis by sex, for all tests and all groups. The mean Male scores and the mean Female scores for pre and post

Table 1

Total Male & Total Female Scores for Pre vs. Post Tests
of Both Groups, Showing Means, Standard Deviations,
Differences of Means, and T-Values

POI Scales		MALE Control & Experimental		FEMALE Control & Experimental		Diff. of Means	T-Value
		Mean	S.D.	Mean	S.D.		
Time Competent	Pre	15.7500	2.7010	15.0000	3.0098	.7500	.6958
	Post	15.500	3.0896	16.2778	2.3466	-.7778	.7836
Support Inner-Directed	Pre	81.4167	11.0327	81.7222	5.4320	-.3056	.1011
	Post	84.6667	13.3167	86.2222	6.8647	-1.5556	.4210
Self- Actualizing	Pre	18.4167	2.6443	18.7778	2.3403	-.3611	.3932
	Post	19.6667	2.1462	19.4444	2.6618	.2222	.2412
Existentiality	Pre	20.9167	3.4234	19.0000	2.4971	1.9167	1.7756
	Post	21.5000	5.4020	20.5556	3.7920	.9444	.5639
Feeling Reactivity	Pre	14.2500	2.7345	15.9444	2.0996	-1.9644	1.9189
	Post	14.8333	3.3800	15.7222	2.4448	-.8889	.8372
Spontaneity	Pre	11.0000	2.2962	11.5556	2.0356	-.5556	.6960
	Post	11.5833	2.2747	12.0556	1.9242	-.4722	.6124
Self- Regard	Pre	12.4167	2.6785	10.6111	2.0903	1.8056	2.0713*
	Post	12.7500	2.1373	11.9444	2.0996	.8056	1.0222
Self- Acceptance	Pre	15.7500	3.3878	15.6667	2.0996	.8033	.0754
	Post	16.1667	3.5377	17.6111	2.6568	-1.4444	1.2483
Nature of Man Constructive	Pre	10.5000	1.8829	11.5556	1.6881	-1.0556	1.6027
	Post	11.1667	2.0375	11.4440	1.9970	-.2788	.3725
Acceptance of Aggression	Pre	15.6667	3.0847	16.4444	2.0926	-.7778	.8252
	Post	16.0000	3.0748	16.3889	2.3549	-.3889	.3921
Capacity for Intimacy	Pre	17.5000	3.9658	17.0556	2.4608	.4444	.3799
	Post	18.0833	5.1250	17.8889	4.3901	.1944	.1112
Synergy	Pre	6.1667	.8348	6.3889	1.1950	.2222	.5583
	Post	6.0833	1.3114	6.3889	1.1448	.3056	.6760
		N=12		N=18			

* Significance at the .05 level

tests, and combined Control and Experimental Groups, are presented for each of the 12 POI scales. The standard deviation, difference of means, and T-value for both Male and Female scores is also presented. The difference was measured at the .05 level of significance. Table 1 indicates that only on the POI scale of Self-Regard was there a significant difference between the mean scores of Males and Females.

Table 2 summarizes the results of the research analysis by sex, for the Control Group, pre and post tests. The Male mean scores and the Female mean scores are presented for the Control Group pre and post tests for each of the 12 POI scales. The standard deviation, difference of means, and T-value for the difference was measured at the .05 level of significance. Both Male and Female scores are also presented. Table 2 indicates that there was no significant difference between Control Group pre and post test scores of Males and Females.

Table 3 summarizes the results of the research analysis by sex, for the Experimental Group pre and post tests. The Male mean scores and Female mean scores are presented for the Experimental Group pre and post tests for each of the 12 POI scales. The standard deviation, difference of means, and T-value for both Male and Female scores are also presented. Table 3 indicates that only on the POI scale of Existentiality was there a significant

Table 2

Male Control vs. Female Control Scores for Pre Tests
& Post Tests Showing Means, Standard Deviations,
Differences of Means & T-Values

POI Scales		MALE CONTROL		FEMALE CONTROL		Diff. of Means	T-Value
		Mean	S.D.	Mean	S.D.		
Time Competent	Pre	16.0000	2.1602	15.6364	2.8026	.3636	.2334
	Post	15.5000	3.1091	16.4545	2.5045	-.9545	.6155
Inner-Directed	Pre	87.7500	10.5317	82.5455	5.1452	5.2045	1.3148
	Post	84.7500	15.0859	88.1818	6.0238	-3.4318	.5886
Self-Actualizing	Pre	19.5000	2.3805	19.7273	1.5551	-.2273	.2187
	Post	19.2500	3.5000	20.2727	1.7939	-1.0227	.7607
Existentiality	Pre	21.5000	2.8868	19.0000	2.4083	2.5000	1.6945
	Post	23.0000	3.7417	21.0909	4.4374	1.9091	.7627
Feeling Reactivity	Pre	16.0000	2.1602	15.6364	2.0136	.3636	.3040
	Post	15.2500	2.3629	15.3636	2.5009	-.1136	.0788
Spontaneity	Pre	12.5000	2.0817	12.6364	1.3618	-.1364	.1499
	Post	13.2500	1.8930	12.7273	1.7373	.5227	.5045
Self-Regard	Pre	13.0000	2.1602	11.0000	1.6125	2.0000	1.9528
	Post	12.2500	2.2886	12.1818	2.1826	.3182	.2305
Self-Acceptance	Pre	16.7500	3.5940	15.5455	2.8762	1.2045	.6749
	Post	16.2500	4.2720	18.1818	2.2279	-1.9398	1.1676
Nature of Man Constructive	Pre	9.75000	1.7078	11.6364	1.9633	-1.8864	1.6938
	Post	11.0000	2.9439	12.0000	1.6733	-1.0000	.8403
Synergy	Pre	6.2500	.9574	6.7273	.9045	.4773	.8914
	Post	5.7500	1.5000	6.6364	1.1201	.8864	1.2461
Acceptance of Aggression	Pre	17.5000	3.1091	16.7273	2.0045	.7727	.5737
	Post	15.7500	2.8723	16.1818	2.6251	-1.1591	.7396
Capacity for Intimacy	Pre	18.7500	4.2720	17.3636	1.7477	1.3864	.9270
	Post	18.0000	5.8310	19.1818	3.4588	-1.1818	.4920
		N=4		N=11			

Table 3

Male Experimental vs. Female Experimental Scores for
Pre Tests & Post Tests Showing Means, Standard
Deviations, Differences of Means & T-Values

POI Scales		MALE EXPERIMENTAL		FEMALE EXPERIMENTAL		Diff. of Means	T-Value
		Mean	S.D.	Mean	S.D.		
Time Competent	Pre	15.6250	3.0677	14.0000	3.2660	1.6250	.9934
	Post	15.5000	3.2950	16.0000	2.2361	-.5000	.3383
Inner-Directed	Pre	78.2500	10.4574	80.4286	6.0238	-2.1786	.4840
	Post	84.6240	13.4583	83.1429	3.6253	1.4821	.2814
Self-Actualizing	Pre	17.8750	2.7484	17.2857	2.6904	.5893	.4183
	Post	19.8750	1.3562	18.1429	3.3877	1.7321	1.3348
Existentiality	Pre	20.6240	3.8149	19.0000	2.8284	1.6250	.9247
	Post	20.7500	6.1586	19.7143	2.5635	1.0357	.4132
Feeling Reactivity	Pre	13.3750	2.6693	16.4268	2.2991	-3.0536	2.3551*
	Post	14.6250	3.9256	16.2857	2.4000	-1.6607	.9665
Spontaneity	Pre	10.2500	2.1213	9.8571	1.7728	.3929	.3857
	Post	10.7500	2.0529	11.0000	1.8257	-.2500	.2475
Self-Regard	Pre	12.1250	2.9970	10.0000	2.7080	2.1250	1.4320
	Post	12.8750	1.8851	11.5714	2.0702	1.3036	1.2768
Self-Acceptance	Pre	15.1250	3.4122	15.8571	2.4785	-.6071	.3888
	Post	16.1250	3.4408	16.7143	3.4983	-.5983	.3284
Nature of Man Constructive	Pre	10.8750	1.9594	11.4286	1.2724	-.5536	.6376
	Post	11.2500	1.6690	10.5714	2.2254	.6786	.6739
Synergy	Pre	6.1250	.8345	5.8571	1.4639	.2679	.4431
	Post	6.2500	1.2817	6.0000	1.1547	.2500	.3944
Acceptance of Aggression	Pre	14.7500	2.8158	16.0000	2.3094	-1.2500	.9309
	Post	16.1250	3.3568	15.5714	1.7182	.5536	.3924
Capacity for Intimacy	Pre	16.8750	3.9438	16.5714	3.4087	.3036	.1583
	Post	18.1250	5.1669	15.8571	5.1778	2.2679	.8473
		N=8		N=7			

* Significant at the .05 level

difference between pre test mean scores of Males and Females.

Table 4 summarizes the results of the research analysis regardless of sex, (1) for pre test scores for Control and Experimental Groups, and (2) for post test scores for Control and Experimental Groups. Presented for pre and post tests are means of the 12 POI scales. The standard deviations, difference of means, and T-values for Control and Experimental Groups are also presented. The difference was measured at the .05 level of significance. Table 4 indicates that on the POI scales of Inner-Directed and Self-Actualizing there were significant differences between Experimental Group pre and post test scores; also on the scales of Existentiality and Self-Acceptance there were significant differences between Control Group pre and post test scores.

Table 5 summarizes the results of the research analysis regardless of sex (1) for Control Group pre and post tests, and (2) for Experimental Group pre and post tests. The mean scores for Control and Experimental Groups are presented for each of the POI scales. The standard deviation, difference of means, and T-value for Control and Experimental Groups are also presented. The difference was measured at the .05 level of significance. Table 5 indicates that on the POI scales of Self-Actualizing and Spontaneity there were significant differences between

Table 4

Means, Standard Deviations, Differences of Means,
and T-Values of Pre and Post Tests
by Control and Experimental Groups

POI Scales	Group	PRE TEST		POST TEST		Diff. of Means	T-Value
		Mean	S.D.	Mean	S.D.		
Time Competent	Cont.	15.73	2.58	16.20	2.60	-.47	.6398
	Expm.	14.87	3.16	15.73	2.76	-.86	1.2910
Inner-Directed	Cont.	83.93	6.95	87.27	9.75	-3.34	1.7530
	Expm.	79.27	8.46	83.93	9.83	-4.66	2.2910*
Self-Actualizing	Cont.	19.67	2.69	20.00	2.29	-.33	.6168
	Expm.	17.60	2.64	19.07	2.58	-1.47	2.4107*
Existentiality	Cont.	19.67	2.69	21.60	4.22	-1.93	2.3769*
	Expm.	19.87	3.38	20.27	4.70	-.40	.6124
Feeling Reactivity	Cont.	15.73	1.98	15.33	2.38	.40	.7638
	Expm.	14.80	2.88	15.40	3.31	-.60	.8712
Spontaneity	Cont.	12.60	1.50	12.87	1.72	-.27	.6734
	Expm.	10.07	1.90	10.87	1.88	-.80	1.7804
Self-Acceptance	Cont.	15.87	3.00	17.67	2.87	-1.80	2.9091*
	Expm.	15.53	2.92	16.40	3.38	-.87	.9421
Self-Regard	Cont.	11.53	1.92	12.27	2.28	-.74	1.7980
	Expm.	11.13	2.97	12.27	2.02	-1.14	1.7148
Nature of Man Constructive	Cont.	11.13	2.02	11.73	2.02	-.60	1.3481
	Expm.	11.13	1.63	11.23	1.90	-.20	.3406
Synergy	Cont.	6.60	.91	6.40	1.24	.20	.7157
	Expm.	6.00	1.13	6.13	1.19	-.13	.3966
Acceptance of Aggression	Cont.	16.93	2.25	16.60	2.64	-.33	.5641
	Expm.	15.33	2.58	15.87	2.64	-.54	.8549
Capacity for Intimacy	Cont.	17.73	2.55	18.87	4.02	-1.14	1.3333
	Expm.	16.73	3.58	17.73	4.13	-1.00	1.5626
		N=15		N=15			

* Significant at the .05 level

Table 5

Control Group vs. Experimental Group by Pre Tests
and Posts Tests Showing Means, Standard Deviations,
Differences of Means & T-Values

POI Scales	Test	CONTROL GROUP		EXPERIMENTAL GROUP		Means	T-Value
		Mean	S.D.	Mean	S.D.		
Time Competent	Pre	15.73	2.58	14.87	3.16	.87	.8234
	Post	16.20	2.60	15.73	2.76	.47	.4766
Inner-Directed	Pre	83.93	6.95	79.27	8.46	4.67	1.6516
	Post	87.27	9.75	83.93	9.83	3.33	.9321
Self- Actualizing	Pre	19.67	2.69	17.60	2.64	2.07	2.5408*
	Post	20.00	2.27	19.07	2.58	.93	1.0532
Existentiality	Pre	19.67	2.69	19.87	3.38	-.20	.1794
	Post	21.60	4.22	20.27	4.70	1.33	.8176
Feeling Reactivity	Pre	15.73	1.98	14.80	2.88	.93	1.0333
	Post	15.33	2.38	15.40	3.31	-.07	.0633
Spontaneity	Pre	12.60	1.50	10.07	1.90	2.53	4.0410*
	Post	12.87	1.72	10.87	1.88	2.00	3.0305*
Self- Regard	Pre	11.53	1.92	11.13	2.97	.40	.4376
	Post	12.27	2.28	12.27	2.02	0	0
Self- Acceptance	Pre	15.87	3.00	15.53	2.92	.33	.3083
	Post	17.67	2.87	16.40	3.36	1.27	1.1111
Nature of Man Constructive	Pre	11.13	2.03	11.13	1.64	0	0
	Post	11.73	2.02	11.23	1.90	.80	1.1162
Synergy	Pre	6.60	.91	6.00	1.13	.60	1.5981
	Post	6.40	1.24	6.13	1.19	.27	.6011
Acceptance of Aggression	Pre	16.93	2.25	15.33	2.58	1.60	1.8091
	Post	16.60	2.67	15.87	2.64	.73	.7604
Capacity for Intimacy	Pre	17.73	2.55	16.73	3.58	1.00	.8821
	Post	18.87	4.02	17.73	4.13	1.13	.7619
		N=15		N=15			

* Significant at the .05 level

Control and Experimental Group pre test scores; also on the scale of Spontaneity there was a significant difference between the two groups' post test scores.

Figure 1 presents the results of the study in the form of a descriptive profile, by Male and Female scores, for Control Group and for Experimental Group, pre and post tests; and a similar profile of Male and Female high school students taken from Shostrum (1966). (Appendix C)

Figure 2 presents the results of the study in the form of a descriptive profile, by comparing the means of all Male combined Control/Experimental/pre/post test scores with the means of all Female combined Control/Experimental/pre/post test scores; and a similar profile of mean scores for both Male and Female high school students taken from Shostrum (1966). (Appendix C)

Figure 3 presents the results of the short 3-statement questionnaire--(a), by comparing the two groups, and (b), by comparing the Males and Females within the two groups. (Appendix D)

Interpretation of Results

H_1 : There will be no significant difference between combined Male pre test scores and combined Female pre test scores.

Rejection of Null Hypothesis 1 is based on data summarized on Table 1, obtained for the POI scale of Self-Regard. This indicates that in pre tests Males scored

significantly higher than Females in Self-Regard. These results imply that high school males in general hold a better self-image than do high school females.

H_2 : There will be no significant difference between combined Male post test scores and combined Female post test scores.

On the basis of the data summarized on Table 1, the Null Hypothesis H_2 was accepted. Male post test scores did not significantly differ from Female post test scores. These results imply that sex differences among high school students did not play a significant role in the scoring results of a second administration of the POI test.

Illustration of these data is seen when considering the above statement regarding the significantly higher Male than Female scores on pre tests of the Self-Regard scale. In the second administration of the POI, both Male and Female scores improve, so that the difference in means drops from the relatively wide gap of 1.8056 for pre tests, to only .8056 for the post tests, thus, erasing the significant difference between Male and Female scores at the level of .05

H_3 : There will be no significant difference between Control Group Male and Female pre test scores.

Acceptance of Null Hypothesis H_3 is based on data summarized on Table 2, Male pre test scores and Female pre test scores in the Control Group did not differ significantly

from each other. These results imply that sex differences among the Control Group students did not play a significant role in the outcome of a single administration of the POI test.

H_4 : There will be no significant difference between Control Group Male and Female post test scores.

Acceptance of Null Hypothesis H_4 is based on data summarized on Table 2. Male post test scores and Female post test scores in the Control Group did not differ significantly from each other. These results imply that sex differences among the Control Group students did not play a significant role in the scoring results of a second administration of the POI test.

H_5 : There will be no significant difference between Experimental Group Male and Female pre test scores.

Rejection of Null Hypothesis H_5 is based on data summarized on Table 3 obtained for the POI scale of Feeling Reactivity. This indicates that in the pre tests of the Experimental Group, Females scores significantly higher than Males in Feeling Reactivity. These results imply that the female high school students in the Group designated as Experimental, were better able to respond to their own feelings than the male high school students in this same group.

H_6 : There will be no significant difference between Experimental Group Male and Female post test scores.

Acceptance of Null Hypothesis H_6 is based on data summarized on Table 3. Male post test scores and Female post test scores in the Experimental Group did not differ significantly from each other. These results imply that even when an intervention is used between two administrations of the POI test, sex differences among high school students did not play a significant role in the resulting post test scores.

H_7 : There will be no significant difference between Control Group scores for pre and post tests.

Rejection of Null Hypothesis H_7 is based on data summarized on Table 4, obtained for the POI scales of Existentiality and Self-Acceptance. The data for Existentiality indicates that the Control Group scored significantly higher in the post tests than the pre tests. The data for Self-Acceptance indicates that the Control Group scored significantly higher in the post tests than the pre tests.

These results imply: (1) that the high school students in the Control Group, were able to become more existentially flexible in viewing their values on a second administration of the POI test; or, stated in another way, that on the post test their ability to react situationally rather than rigidly in accordance with objective principles, had increased, and (2) that high school students, in the

Control Group, were able to increase their acceptance of self-worth on a second administration of the POI test; or, stated in another way, that on the post test their ability to accept their weaknesses and deficiencies as well as their strengths, has increased.

H_8 : There will be no significant difference between Experimental Group scores for pre and post tests.

Rejection of Null Hypothesis H_8 is based on data summarized on Table 4, obtained for the POI scales of Inner-Directed Support and Self-Actualizing. The data for Inner-Directed indicates that the Experimental Group scored significantly higher on this scale in the post tests than the pre tests. The data for Self-Actualizing indicates that the Experimental Group scored significantly higher on this scale in the post tests than the pre tests.

These results imply: (1) that the high school students in the Experimental Group who were given the art therapy intervention, were on the Inner-Directed scale more able to be guided by inner motivation in their responses on the post POI test than previously; or, stated in another way, that the students who took the OMAC between the pre and post POI tests, were able to increase significantly the degree to which they felt motivated by internal values rather than by external influences, and (2) that the high school students in the Experimental Group who were given the art therapy intervention, on the Self-Actualizing

POI scale, were able to increase significantly the degree to which they felt they were able to make value judgments in terms of their own wants, likes and dislikes; or, stated in another way, that the students who took the OMAC between the pre and post tests became more aware of consciously choosing their values rather than relying on what they had been taught as right or wrong.

H_0 : There will be no significant difference between Control Group and Experimental Group scores of pre tests.

Rejection of Null Hypothesis H_0 is based on data summarized on Table 5, obtained for the POI scales of Self-Actualizing and Spontaneity. The data for Self-Actualizing indicates that on this scale the Control Group scored significantly higher in the pre tests than did the Experimental Group in pre tests. The data for Spontaneity indicates that on this scale the Control Group scored significantly higher in pre tests than did the Experimental Group in pre tests.

These results imply: (1) that on the scale of Self-Actualizing the high school students in the Control Group were in the beginning (i.e., on the pre test) less dependent on what they had been taught as absolutes of right and wrong in making their own value judgments than were the students in the Experimental Group, and (2) that on the scale of Spontaneity the high school students in the Control Group

were in the beginning more able to respond spontaneously to their needs and feelings--that is, to be themselves--than were the students in the Experimental Group.

H_{10} : There will be no significant difference between Control Group and Experimental Group scores of post tests.

Rejection of Null Hypothesis H_{10} is based on data summarized on Table 5, obtained for the POI scale of Spontaneity. The data for Spontaneity indicates that on this scale the Control Group scored significantly higher in the post tests than did the Experimental Group in the post tests.

These results imply that the high school students in the Control Group (which were seen in H_9 to be more spontaneously responsive to their feelings in the beginning), continue at a subsequent time, to be more responsive to their feelings than did the Experimental Group. Apparently then, the art therapy intervention which the Experimental Group experienced did not play an important role in changing their post test scores on the scale of Spontaneity. Although the Experimental Group post test scores on this scale were higher than on pre test scores, the increase was not a significant one.

Analysis of the data indicates that the use of a specific art therapy technique as an intervention can produce some demonstrable change between scores--indicative

of change in self-perception--on two administrations of a standard personality inventory. The specific art therapy technique is the Old Masters Art Collage. The standard personality inventory is the Personal Orientation Inventory.

In 7 of the 12 scales which are measured in the 150 items of the POI, significant change occurred between the scores of the pre and post tests. These scales were: Support Inner-Directed; Self-Actualizing; Existentiality; Feeling Reactivity; Spontaneity; Self-Regard; and Self-Acceptance. No significant change in score occurred in the other five scales: Time Competent; Nature of Man; Synergy; Acceptance of Aggression, and Capacity for Intimate Contact.

Chapter 5

SUMMARY

This study was designed as a means of determining whether a specific art therapy technique--the Old Masters Art Collage--could produce demonstrable change in self-perception. Self-perception was conceived as awareness of, and willingness to acknowledge, a variety of both positive and negative personality factors. In order to stimulate signs of such change in self-perception, the OMAC was used as an intervention technique between two administrations of a standard personality inventory--the Personal Orientation Inventory.

The POI was chosen as an appropriate test since it was specifically designed to focus on an individual's positive mental health rather than on aspects of mental pathology. Created by Everett Shostrum to be a measure of Maslow's concept of Self-Actualization, the POI's 150 two-choice items are non-threatening to the individual taking the test. This aspect was also important in its selection since the subjects for the study were from a normal population of adolescents.

The subjects for the study came from two high school classes in psychology. These two groups of students were arranged alphabetically into one group and then

divided through the use of a table of random numbers into two equal-sized groups.

Each group was given both a pre and a post POI test. Only one of the groups, the Experimental Group, was given the intervention art therapy technique, the OMAC.

Ten hypotheses, stated in the form of Null Hypotheses, were developed. Four of these were designed to test the difference between the Control and the Experimental Groups. The other six hypotheses compared the differences between Male and Female scores--within the groups and between each other.

On the basis of significant changes in the POI scales in the resulting data, derived from pre and post tests for the Control and Experimental Groups, regardless of sex, Null Hypotheses H_7 , H_8 , H_9 , and H_{10} were tested and rejected.

On the basis of the data derived from pre and post tests, from the Control and Experimental Groups, and from Male and Female scores, Null Hypotheses H_1 , H_2 , H_3 , H_4 , H_5 , and H_6 were tested. Since there was no significant change in pertinent POI scale data, H_2 , H_3 , H_4 , and H_6 were accepted. Since there were significant changes in other pertinent POI scale data, H_1 , and H_5 were rejected.

The specific POI scales showing significant change in score means, along with the tables where they can be located, and the Null Hypotheses which are rejected due to

the score changes, are as follows:

On the Self-Regard scale, seen in Table 1, the combined Male mean scores were significantly higher in the pre tests than the combined Female mean scores in the pre tests. These data are reflected in the rejection of H₁.

On the Feeling Reactivity scale, seen in Table 3, Females in the Experimental Group scored significantly higher in the mean pre test than Males in the Experimental Group pre test. This data is reflected in the rejection of H₅.

On the Support Inner-Directed scale and the Self-Actualizing scale, seen in Table 4, the Experimental Group scored significantly higher in the mean post test than in the mean pre test. This data is reflected in the rejection of H₈.

On the Existentiality scale and the Self-Acceptance scale, seen in Table 4, the Control Group scored significantly higher in the mean post test than in the mean pre test. This data is reflected in the rejection of H₇.

On the Self-Actualizing scale, seen in Table 5, the Control Group scored significantly higher in the mean post test than in the mean pre test. This data is reflected in the rejection of H₇.

On the Spontaneity scale, seen in Table 5, the Control Group scored significantly higher in the mean pre test than the Experimental Group pre test. This data is

reflected in the rejection of H_9 . Also on the Spontaneity scale, seen in Table 5, the Control Group's scores in the mean post test were significantly higher than the Experimental Group's mean post test. This data is reflected in the rejection of H_{10} .

The binomial tests for differences in proportions used to analyze the results of the short 3-statement questionnaire indicated that the difference between Control Group Yes answers (4) and Experimental Group Yes answers (9) was a significant one at the level of .01.

However, there was no significant difference established between the Male Yes answers and the Female Yes answers between the two groups.

Within the two groups--Male performances compared between the Control Group Yes answers (0), and Experimental Group Yes answers (6), was shown to be highly significant at less than the .01 degree; while Female performances compared between the Control Group Yes answers (4), and Experimental Group Yes answers (4), was shown not to be significant.

Conclusions and Implications

As a result of the accumulated data from this study several conclusions can be drawn regarding the performance of Male and Female subjects, the performance of Control and Experimental Groups, and the performances of pre and post tests.

From the results of the statistical analysis of data involving differences between Male and Female scoring, it can be concluded that sex seems to play little significant part in the scoring outcomes of the POI scales.

Table 1 illustrates this.

In only two POI scales, Self-Regard and Feeling Reactivity, was there significant difference between the means of males' and females' scoring. Males scored significantly higher in Self-Regard in both pre and post tests. Females scored significantly higher in Feeling-Reactivity in pre tests, and, though no longer significantly higher, continued to score higher on this scale in post tests as well.

For graphic representation of these two significant differences in Male and Female scores on POI scales, see Tables 1, 2, and 3.

Figure 1 presents in graphic profile form both the general lack of sexual factors involved in determining critical differences in scoring on the POI scales, and the two specific POI scale peaks from this study which do reflect sexual differences. For the Female subjects the Feeling-Reactivity scores move up above the standard mean score of 50 on the profile, thus, entering the range considered to be self-actualizing. For the Male subjects the peak of Self-Regard moves even farther above the standard mean score of 50 into the range of self-actualization.

These two POI scale peaks, above the mean standard score, reflect the overall profile elevation of the present study's subjects compared with their Figure 1 companion profiles of male and female students from a Shostrom study. Judged by their overall generally higher scores, the present subjects would be considered to be better functioning and closer to being self-actualized people than would be Shostrom's two high school groups.

A possible explanation for this fact is that the present study's subjects are drawn from high school psychology classes and are therefore more used to dealing with psychological matters than are general high school students. Figure 1 also shows that in the present study's Male and Female scores there is a fluctuating back and forth of high and low positions, while in the Shostrom study, the Female scores consistently remain higher than the Male. This fact might also be explained in the same way. That is, that having a background in psychology provides new personal understanding to every student, whether male or female, so that each becomes more able to function as an individual rather than out of a more traditional sex pattern.

From the results of the statistical analysis of data involving differences between the scoring of the Control and Experimental Groups, several conclusions can be reached.

First it is seen from the data on pre test scores,

that there was from the beginning a difference in ability between the Control and Experimental Groups. On 10 of the 12 POI scores the Control Group score means were higher than the Experimental Group's, with two of these POI scale means reflecting a significant degree of difference--Self-Actualizing and Spontaneity. Second, it is seen that in spite of this initial difference, the Experimental Group, which was given the OMAC as an intervention, had in the post test score means increased on all 12 of the POI scales, two of them to a significant degree--Inner-Direction and Self-Actualization--; one of them surpassing the Control Group post score mean--Feeling Reactivity--; and one of them matching the post score means of the Control Group--Self-Regard.

For graphic representations of the initial differences in the Control and Experimental Groups, as well as the final narrowing of the scoring range between them, see Tables 4 and 5.

Figure 2 presents in graphic form profiles for pre and post score means of the Control and Experimental Groups of the present study along with a profile of score means of a group of male and female high school students taken from Shostrum.

The generally higher scores of the Control over the Experimental Group in pre tests is clearly seen. Likewise, the increase in all 12 POI scales in the Experimental Group

post test scores is seen. Visible also is the narrowing of the difference of means between the Control and Experimental pre tests when comparison is made with the post test profiles of both groups.

As was noted in Figure 1, when the comparison was made between the Shostrom companion profiles and those of the present study, in Figure 2 all four profiles, representing Control and Experimental pre and post tests of the present study, are seen to be closer to the standard for self-actualizing, than are those of Shostrom's study. Again, this could be accounted for by the fact that the present study's subjects were selected from high school students with a grounding in the basic principles of psychology, thus, potentially possessing more mature self-understanding than would be likely for the general adolescent high school student.

From the results of the statistical analysis of data involving differences between the scores on pre and post POI tests, it can be concluded that the score means of both Control and Experimental groups were in general higher on the post tests than the pre tests. The 9 POI scales showing increase in mean scores of Control Group post tests are Time, Inner-Directed, Self-Actualization, Existentiality, Spontaneity, Self-Regard, Self-Acceptance, Nature of Man, and Capacity for Intimacy. The Experimental Group post scores increased in all these same POI scales

plus the three others--Feeling-Reactivity, Synergy and Acceptance of Aggression.

Further analysis of the pre and post test score data shows that a significant degree of increase in post test over pre test POI scale items occurred in Existentiality, Self-Actualization and Self-Acceptance for the Control Group, and in Inner-Directed and Self-Actualization for the Experimental Group.

Since the Control Group was not given the OMAC between pre and post tests, that group's three significantly increased post test scores could not be dependent upon any known, specific intervention. Instead, the significant increase in scores must be attributed to some other factor, possible that of the Hawthorne Effect.

Also, there is no proof that the significantly increased Experimental Group post test scores were not also due to operation of an unknown factor, possibly the Hawthorne Effect. However, several statistical factors derived from previously discussed analyses of data from this study, would indicate a different explanation.

First, the Control Group was initially seen (from the pre test results) to be the brighter and more promising group; yet, the results of their post test means showed that improvement in score had occurred on only 9 out of 12 scales, only two of which represented really significant improvement while the other seven were at a relatively

low level.

Second, the Experimental Group, initially seen to be the slower and less promising group, in their post test means showed that improvement had occurred on 12 out of 12 scales. Two of these increases in score represented significant change at the .05 level; and, except for the two Control Group post test scores showing a significant degree of improvement, every Experimental Group post test score increase was at a higher level than were the Control Group post test score increases.

The most likely explanation for the fact that the initially slower group showed the greatest degree of improvement over two administrations of the personality inventory, would seem to be the most obvious one: that the OMAC intervention which was given to this group provided the catalytic stimulus for increased self-perception.

Further indication of the positive impact demonstrated by the OMAC in the outcome of the Experimental Group's post test scores, is the statistical information provided by the binomial tests for differences in proportions used to analyze results from the short three-part questionnaire given to both groups at the completion of all parts of the study.

In the 15 member Control Group, the total experience was checked as personally meaningless by all 4 males and 7 females; 4 other females checked Yes, indicating that they

felt they had learned something about themselves.

In the 15 member Experimental Group, 5--2 males and 3 females--checked No, indicating that the experience had been personally meaningless to them, and 10--6 males and 4 females--checked Yes, indicating it had been useful in learning something new about themselves.

Limitations of the Study

The original plan for obtaining 50 high school students from two psychology classes totaling approximately 60 students, had to be revised. This was due to the difficulty of having the same people present for three separate events and on three separate days. The final total number of subjects shrank to 30. This smaller number of subjects may have had an effect on the results.

The 30 students were divided into two equal-sized groups by arranging them alphabetically and using a table of random numbers. However, as it turned out, one of the classes was slower than the other, and by arranging both classes onto a single alphabetical list, from which randomizing was accomplished, an unbalanced number of slow students was produced in one group and brighter students in the other. This imbalance may have had an effect on the results.

The method used for separation into two equal-numbered groups without regard for assuring equal numbers

of males and females in each group, undoubtedly had an effect on the outcome of the study, for in one group of 15, there were 4 males and 11 females, and in the other there were 8 males and 7 females.

The nature of the Personal Orientation Inventory may have been a limitation to the study. The vocabulary and language in the test is complex and many of the students had questions about specific words as well as ambiguous meanings, which slowed them down as well as discouraged them about their abilities to take the test.

This fact was born out by the number of incompletes, therefore, disqualified tests, which had to be discarded, in spite of their authors' having been present for all the necessary parts of the experiment, and in some cases enthusiastically involved as well.

Another possible limitation arising from the use of the POI as the standard personality test was that many of the students, especially in the second administration of the test, expressed boredom with the repetitiousness and equivocal nature of the two-choice items, and needed personal encouragement to continue working at the test. Although this particular group of students drawn from psychology classes had had more than the usual experience of taking psychological tests, many seemed to find the POI both hard and long, so that they may have answered questions only to finish the test rather than with any real

attention to meanings.

A final possible limitation to achieving an unbiased result in this study is related to the choice of the POI as the pre and post test, and has to do with the fact that although the students participating in the art therapy intervention were initially apprehensive, suspicious and resistant, eventually the feeling tone generated and this group became extremely warm and positive. The subjective vibrations set in motion by their participation in this part of the experience may have caused them then to participate more wholeheartedly in the second administration of the POI. Such a change in attitude would quite probably have made a difference in the ways they felt about answering hard to understand, and difficultly worded questions.

Recommendations for Further Research

Further research on the potential for using art therapy techniques for increasing self-perception and self-awareness in normal, healthy population samples, should include a variety of changes in format and experimental plan.

First, a better personality test designed more appropriately to suit the task of measuring self-perception would make the statistical results more meaningful.

Second, greater care should be taken in dividing the subject group into two equal-numbered parts. For instance, if again two psychology classes were to be used--

care should be taken to discover if one class is generally more able than the other. If this is the case, possibly instead of drawing up one alphabetical list of the combined classes from which to work with the table of random numbers, an alphabetical list from each class should be used for random selection, so that some brighter and some slower students would be included in each group.

Third, care should also be taken to assure a more balanced male and female ratio in each group. This consideration could also be dealt with in setting up the pool from which the randomizing would be made.

Fourth, in order to supply validity to the statistical results obtained from whichever standardized personality test is selected, both oral and written individual comments would be useful. In this way the traditional, necessarily impersonal test-intervention-test format could be rechecked by the more personal, less scientific comments of the individuals who participated. Appropriately, the efficacy of an art experience considered to be a unique heuristic exercise where learning takes place within the individual as an integral part of the process itself, would be best assessed by the individual himself.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Arnheim, Rudolph. Preceptual abstraction and art. Psychological Review, 1947, 54, 2-4.
- _____. Gestalt theory of expression. Psychological Review, 1949, 56, 156-171.
- _____. Artistic symbols--Freudian and otherwise. Journal of Aesthetics and Art Criticism, 1953, 12, 93-97.
- _____. Art and Visual Perception. Berkeley: University of California Press, 1954.
- _____. Toward a Psychology of Art. Berkeley: University of California Press, 1966.
- _____. Visual Thinking. Berkeley: University of California Press, 1969.
- Assagioli, Roberto. Psychosynthesis. New York: Viking, 1971.
- _____. The Act of Will. New York: Viking, 1973.
- Baum, F. Artistic perception as a possible factor in personality style: Its measurement by a figure preference test. Journal of Psychology, 1952, 33, 199-203.
- Benda, Clemens E. The Image of Love. New York: Free Press of Glencoe, Inc., 1961.
- _____. Illness and artistic creativity. The Atlantic Monthly, 208, 1, 1961, 97-104.
- Bogen, Joseph E. The other side of the brain. In Ornstein's Nature of Human Consciousness. 101-125.
- Bruner, Jerome, & Goodman, Cecile C. Behavioral components of perception. Journal of Abnormal and Social Psychology, 1947, 42, 33-44.
- Bruner, Jerome. On Knowing: Essays for the Left Hand. Cambridge: Harvard University Press, 1962.

- Bugental, James, & Zelen, Seymour. Investigation of the self-concept: The WAY technique. Journal of Personality, 1950, 18, 438-486.
- Child, Irvin. Children's preference. Psychological Monographs, 1946, 60, #4.
- Crampton, Martha. The visual "Who am I" technique. Approaches to the Self: The "Who am I" Techniques in Psychotherapy. New York: Psychosynthesis Research Foundation, Inc., 1967.
- _____. The use of mental imagery in Psychosynthesis. Journal of Humanistic Psychology, 1969, 23, 4-22.
- _____. An Historical Survey of Mental Imagery Techniques in Psychotherapy and Description of the Dialogic Imaginal Integration Method. Quebec: Center of Psychosynthesis, Inc., 1974.
- Daily Review. Hayward, California: Nov. 11, 1974, 6.
- Ehrenzweig, Anton. The Psychoanalysis of Artistic Vision and Hearing: An Introduction to a Theory of Unconscious Perception. New York: Julian Press, 1953.
- _____. A new psychoanalytic approach to aesthetics. British Journal of Aesthetics, 1962, 2, 301-317.
- _____. The Hidden Order of Art. Berkeley: University of California Press, 1967.
- Eliade, Mircea. Images and Symbols. New York: Sheed & Ward, 1961.
- Fink, Paul Jay. Art as reflection of mental status. International Journal of Art Psychotherapy, 1973, 1, 17-30.
- Firth, Raymond. Symbols: Public and Private. Ithaca, New York: Cornell University Press, 1973.
- Freud, Sigmund. Leonardo da Vinci, A Childhood Memory. (1910), Translated A. A. Brill. New York: Random House, 1974.
- _____. The Interpretation of Dreams. Translated A. A. Brill. London: Allen & Unwin, 1937.

_____. Jokes and their relation to the unconscious. Collected Works, Vol. 8, London: Hogarth Press, 1960.

_____. Creative writers and daydreams. Collected Works, Vol. 9, London: Hogarth Press, 1960.

_____. History of the Psychoanalytic Movement. New York: Macmillan, 1963.

Friedman, Norman. Imagery from sensation to symbol. Journal of Aesthetics and Art Criticism, 1954, 12, 25-37.

Gombrich, E. H. Art and Illusion. London: Phaidon Press, 1968.

Harms, Ernest. Forward. International Journal of Art Psychotherapy, 1973, 3/4, i-ii.

Hodness, Mary Lee. A broader view of art therapy. International Journal of Art Psychotherapy, 1973, 2, 75-79.

Hogg, James (Ed.). Psychology and the Visual Arts: Selected Readings. Baltimore: Penguin Books, 1969.

Jaspers, Karl. The Nature of Psychotherapy. Chicago: University of Chicago Press, 1963.

Jung, Carl. Psychological Types. Translated H. Gordon Baynes. London: Kegan Paul, 1926.

_____. Archetypes. Collected Works, Vol. 1, London: Routledge & Kegan Paul, 1940.

_____. Psychic Wholeness. Collected Works, Vol. 14, London: Routledge & Kegan Paul, 1940.

_____. Man and His Symbols. New York: Doubleday, 1964.

_____. Two Essays on Analytical Psychology. Princeton: Princeton University Press, Bollingen Series XX, 1966.

Kandinsky, V. On the Spiritual in Art. Translated Hilla Rebay. New York: Guggenheim Foundation, 1946.

Kellogg, Rhoda. Analysis of Childrens Art. Palo Alto: National Press Books, 1969.

- Kelly, Gary F. Mental images in counseling. Personnel & Guidance Journal, 1974, 53, 111-116.
- Keyes, Margaret Frings. The Inward Journey. Millbrae, California: Celestial Arts, 1974.
- Klein, Melanie. The importance of symbol-formation in the development of the ego. International Journal of Psychoanalysis, 1930, 11, 24-30.
- Knapp, Robert R. The Measurement of Self-Actualization and its Theoretical Implications: A Report Based on the POI. San Diego: Educational and Industrial Testing Service, 1973.
- Kris, Ernst. Psychoanalytic Explorations in Art. New York: International Universities Press, Inc., 1956.
- Langer, Susan K. Feeling and Form: A Theory of Art. New York: Scribner, 1953
- Lewis, Hilda Present (Ed.). Child Art: The Beginnings of Self-Affirmation. Berkeley: University of California Press, 1966.
- Mandler, Jean & Mandler, George A. (Eds.). Thinking: From Association to Gestalt. New York: John Wiley & Sons, Inc., 1964.
- Maslow, Abraham. Toward a Psychology of Being. New York: Van Nostrand Reinhold Co., 1968.
- McCurdy, Harold G. Aesthetic choice as a personality function. Journal of Aesthetics and Art Criticism, 1953, 12, 373-377.
- Mills, Sue. Who we are, what we do, how we live. Hayward: Public Library Folder of U. S. Census breakdown, 1970.
- Ornstein, Robert. The Psychology of Consciousness. San Francisco: Freeman Press, 1973.
- Ornstein, Robert (Ed.). Nature of Human Consciousness: A Book of Readings. San Francisco: Freeman Press, 1973.
- Perls, Fritz. Gestalt Therapy Verbatim. Lafayette, California: Real People Press, 1969.

- Perry, John Weir. The creative element in madness. International Journal of Art Therapy, 1973, 1, 61-65.
- Piaget, Jean. The Child's Conception of Physical Causality. New York: Harcourt Brace, 1930.
- Piaget, Jean & Inhelder, Barbel. The Child's Concept of Space. London: Routledge & Paul, 1956.
- Progoff, Ira. Depth Psychology and Modern Man. New York: Julian Press, 1959.
- _____. The psychology of personal growth. The Atlantic Monthly, 1961, 208, 102-104.
- _____. The Symbolic and the Real. New York: Julian Press, 1963.
- Rank, Otto & Sachs, Hanns. Psychoanalysis as an Art and a Science. (New edition, Harry Slochower Ed.) Detroit: Wayne State University Press, 1968.
- Read, Sir Herbert. Icon and Idea: The Function of Art in the Development of Human Consciousness. Cambridge: Harvard University Press, 1955.
- Reyer, Joseph. Free imagery: An uncovering procedure. Journal of Clinical Psychology, 1963, 19, 454-459.
- Rhyne, Janie. Gestalt Art Experience. Monterey, Calif.: Brooks-Cole, 1973.
- Rogers, Carl & Stevens, Barry. Person to Person. Lafayette, California: Real People Press, 1967.
- Schapiro, Meyer. Leonardo and Freud. Journal of the History of Ideas, 1956, 17, #2, 147-178.
- Segal, Hanna. Introduction to the Work of Melanie Klein. London: William Heineman, 1964.
- Shostrom, Everitt L. POI Manual. San Diego: Educational and Industrial Testing Service, 1966.
- Slowchower, Harry. Applied Psychoanalysis as a science and as an art. (In Psychoanalysis as an Art and a Science). Detroit: Wayne State University Press, 1968.

Spector, Jack J. The Aesthetics of Freud: A Study in
Psychoanalysis and Art. New York: Praeger, 1972.

Winer, B. J. Statistical Principles in Experimental Design.
New York: McGraw Hill, 1962.

Wittkower, Rudolph & Margot. Born Under Saturn. New York:
Random House, 1963.

APPENDICES

APPENDIX B

QUESTIONNAIRE

The Questionnaire: (check yes or no)

	<u>Yes</u>	<u>No</u>
1. I feel I have learned something new about myself during the course of these tests.	_____	_____
(If your answer is yes, check either of the two following statements)		
2. I feel what I have learned is more positive than negative. That is, I <u>like</u> what I have discovered about me.	_____	_____
3. I feel what I have learned is more negative than positive. That is, I didn't particularly like what I have discovered about me.	_____	_____

APPENDIX C

PROFILE SHEET FOR THE PERSONAL ORIENTATION INVENTORY

Pre & Post Male _____ Male .-.-.-
Present Study Shostrum
 Pre & Post Female _____ Female

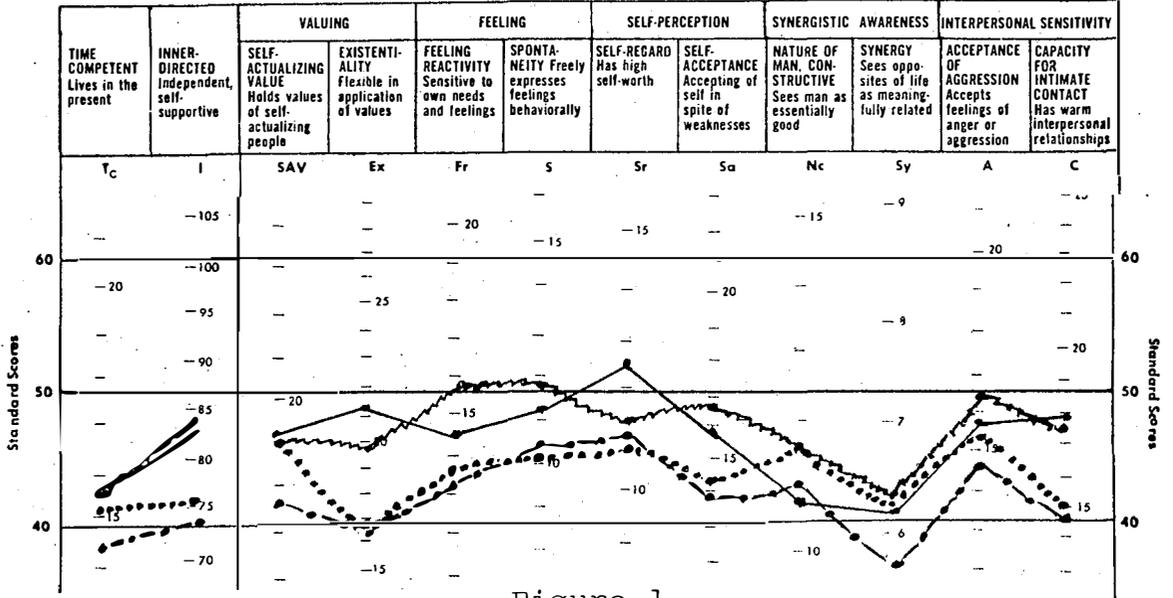


Figure 1

Control Experimental
Present Study Pre _____ Post - - - - -
 Pre _____ Post _____ Shostrum

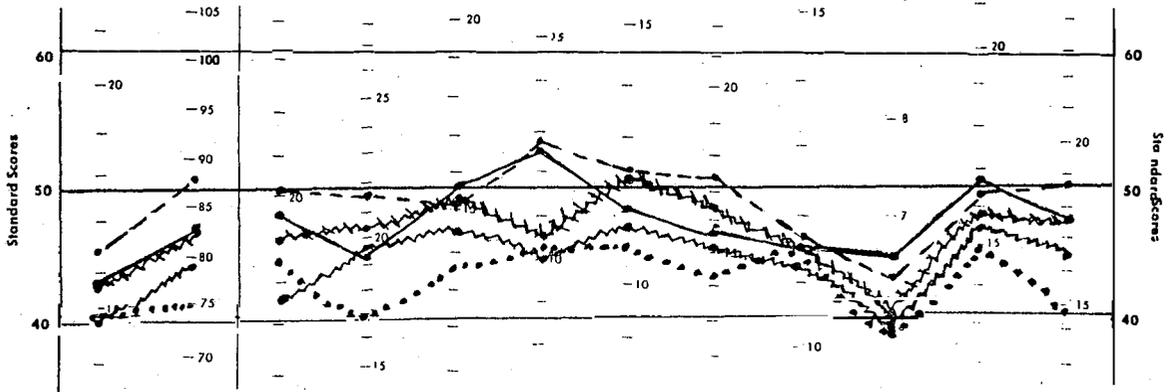


Figure 2

APPENDIX D

CONTROL AND EXPERIMENTAL GROUPS

(a)

<u>CONTROL GROUP</u>		<u>EXPERIMENTAL GROUP</u>	
<u>Yes</u> answers	4	<u>Yes</u> answers	9
<u>No</u> answers	11	<u>No</u> answers	5
N=15		N=15	

(b)

	<u>CONTROL GROUP</u>			<u>EXPERIMENTAL GROUP</u>	
	<u>Male</u>	<u>Female</u>		<u>Male</u>	<u>Female</u>
<u>Yes</u>	0	4	<u>Yes</u>	6	4
<u>No</u>	4	7	<u>No</u>	2	3
	N=4	N=11		N=8	N=7

Figure 3