

THE EFFECT OF PARTICIPATION IN AN
EXPERIENTIAL ART PROGRAM ON
SELF-PERCEPTION OF
CREATIVITY IN
ADULTS

By

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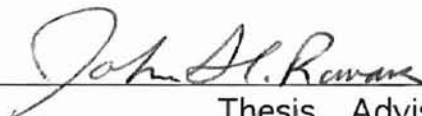
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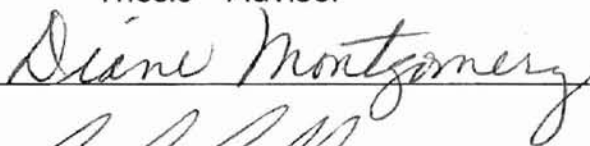
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"The Effect of Participation in an Experiential Art Program on Self-Perception of Creativity in Adults."

Introduction

Statement of the Problem

Creativity is often considered an attribute of a few "talented" individuals rather than as a trait we all possess, or as a quality that could be fostered in the general population (Weisberg, 1993). The roots of creativity-- spontaneity, curiosity, exploration and risk-taking-- are considered natural for very young children (Urban, 1991); but there are questions about how these characteristics, or how creativity itself, manifests in the adult population.

Defining creativity has been a goal of many researchers. There is no single agreed upon definition for the construct, rather there are multiple definitions. Many definitions can be organized along a continuum. One end is represented by a "product" orientation, an evaluation based on "creations" such as paintings, performances or business decisions. The other is represented by a "process" orientation which focuses more on a potential for problem solving (Hayes, 1989; Sapp, 1992). Some definitions offer a blend of these orientations, all of which will be discussed more fully in the review of the literature. Inherent in both approaches to defining creativity is some focus on problem solving. Creative problem solving may be viewed from the scientific arena (finding a vaccine for AIDS), the visual arena (Picasso's efforts to represent the horrors of the Spanish Civil War), or even an inter-personal arena (as a therapist seeks to establish communication with a client). In each case,

however, the motivation for creativity is generated by the problem to be solved, and by the result to be sought. Csikszentmihalyi (1988) proposes a systems view of creativity in which context and society are inseparable from creativity within the individual. Without a societal framework in which to understand an individual's motivation to "create" (i.e. society's reinforcement, reward structure and values), labeling an individual as "creative" is meaningless.

Barron (1988) offers the following consensus of creativity definitions from a review of the literature: Creativity includes "an ability to respond adaptively, usually including the creation of a 'product' resulting from a 'process' initiated by a 'person'; and the resulting product has characteristics of being fresh, novel, unusual, ingenious, clever and apt (p. 80)." Creativity is more than the personality or the product created; it must include the social context as well.

Following closely on the heels of defining creativity is answering the question of the importance of creativity. Walberg and Stariha (1992) suggest that creativity is an important factor in developing "human capital," referring to the socio-economic benefits of creativity. Eisner (1987) postulates that creativity is important to enable members of modern society to cope with the ambiguous nature of human existence. Read (1949) adds, ". . .the secret of our collective ills is to be traced to the suppression of spontaneous creative ability in the individual (p. 202)." Sarason (1990) attributes societal frustration to the lack of artistic activity (expressions of creativity) in a culture. While he doesn't claim that

artistic activity is a palliative to societal ills, he does suggest that creative expression is an important way of learning about the world. Through artistic activity, internal imagery is given ordered and lasting expression. It is a way of making a personal mark in the world, changing both the mark maker and the world. Maslow proposes a strong interrelationship between psychological health and creativity (Yau, 1991). An interest in identifying and enhancing creativity, however variously defined, is pervasive in the literature. In spite of what may seem like the obvious desire to "be creative," or to have creative individuals in our midst, even as a necessary component for survival in our fast-paced and rapidly changing world, our society may still hold the view that creativity is extraordinary and belongs to a few genetically select individuals (Bailin, 1994; Weisberg, 1986).

Several books and studies, however, suggest that creativity can be enhanced by participation in art programs (Edwards, 1986), learning certain drawing and visual techniques (Edwards, 1986; Leland, 1990) or changing personal viewpoints- that is, a cognitive paradigm shift (Goleman, et al, 1992; vonOech 1990). This shift would involve seeing creativity in "ordinary" events, like rearranging furniture, designing a flower garden, or choosing an alternate route when faced with a detour, as opposed to seeing creativity as only evidenced by patented inventions, museum-purchased artwork, or world changing discoveries. Weisberg (1986) suggests that creative thinking is so natural as to be "inevitable" in humans. The question that naturally follows is: Can creativity be fostered or enhanced in individuals?

However defined, the plethora of books and articles on creativity suggests that we value creativity and consider it important to maintain in our society. Creativity can indeed be nurtured and enhanced. Additionally, there are calls for more studies of creativity in adults (Pickard, 1990; Stein, 1993).

Art production, including sketching, drawing, painting, sculpting, and other artmaking activities by novice and professional alike, has long been associated with the concept of creativity. Art production fosters and enhances creative thinking (Capacchione, 1979; Edwards, 1986; Leland, 1990; Smagula, 1993) but little is known of how art making activities might affect adults' self-perception of their own creativity. An adult art class that explores creativity through visual art instruction may be a means to observe creative behavior and changes in self-perception of creativity. Will adult students who participate in an 8-week experiential art program change in their self-perception of their creativity?

Purpose of Study

The purpose of this study is to observe and record the artmaking process and its effects on self-perception of creativity in a group of adult students. The artmaking process includes such activities as drawing, painting, collage, 3-dimensional sculpture, papermaking, bookbinding, mixed-media techniques, and written journal accounts organized into brief sessions. A record of the artmaking process will be analyzed by thematic coding of adult journals. Self-perception is considered to be the adult's ideas about

their own creativity as measured on the Khatena-Torrance Creative Perception Inventory.

Definition of Terms

Creativity will be defined by the participants as they respond to the questions in their journals. For the purposes of this study, creativity is defined as a "process" in which individuals engage that results in a new or original recombination of previous "knowledge-experience" with new "knowledge-experience" in the present moment: a "product" to solve a "problem." The problem will be generated by structure of the class. For instance, participants may be asked to paint an emotion using only color and design elements. The process in which the individual engages in order to complete the task will result in a product. This "product"--whether in the form of insight or art product--will be considered "useful" by virtue of its occurrence, or if it is considered to be "creative" by the individual or the researcher.

Significance of Study

The literature reflects a continued call for a diversity of approaches to study creativity (Sternberg & Lubart, 1996; Magyari-Beck, 1993; Werner, et al., 1991,) maintaining that psychology has committed a Type II error by failing to identify differences which exist in the population with respect to the construct of creativity. They point to the neglect of the profession to devote adequate resources to the study of creativity given its relative importance in the field of psychology and the world. The importance of

understanding the construct of creativity is underlined by Csikszentmihalyi (1996), and Magyari-Beck (1993) in the postulation that not only does culture define creativity, but creativity defines culture.

This study seeks to identify connections between art processes and creativity as defined by self-perception. It may lead to further techniques for fostering creativity in individuals. It may also provide the basis for future studies using a larger sample size and improved design features. The results may have implications for professionals in many fields, including counseling (helping clients with personal problem solving and techniques for enhancing personal creativity), and further understanding of human development (Dinwiddie, 1994.) Sternberg and Lubart (1996) call for more studies on creativity, as the importance is considered very timely in our rapidly changing world.

Assumptions

It is assumed that persons who enrolled in this course did not necessarily consider themselves "highly creative". It is assumed that the enrollees are somewhat representative of the general population of adults in the community. The art center where these courses were held offers introductory and intermediate classes for individuals in the community. Presumably the enrollees were interested in discovering or exploring their creativity, not displaying something of which they were already aware.

Creative behavior exhibited in artmaking is assumed to be an indicator of the larger construct "creativity". Although there are

many ways to define and assess creativity, which will be discussed further in the review of the literature, for the purposes of this study, artmaking creativity is assumed to be indicative of the larger construct.

Self-perception of creativity is assumed to be indicative of creativity. This is supported by the definitions of creativity that propose novelty to the individual and the contextual nature of creativity as elements of the construct (Csikszentmihalyi, 1988; Ebert, 1994).

Organization of Study

In the following sections, research supporting this study will be reviewed, including various descriptions of the creative process and definitions from the current literature. There will be a detailed description of the participants involved in the study, the instruments used to elicit self-reports, and procedures to be followed in conducting the research. These will be followed by a description of the format to be used by outside raters and guidelines for interpreting the results.

Review of the Literature

Introduction

"The problem of creativity is beset with mysticism, confused definitions, value judgments, psychoanalytical admonitions, and the crushing weight of philosophical speculation dating from ancient times."

(Albert Rothenberg quoted by Edwards, 1986, p. 30)

The review of the literature relevant to this study will focus first on the nature of creativity; the ways in which the construct is conceptualized in the literature; beginning with an historical perspective of the "genius" or mystical view of creativity; and including some personality and mental abilities descriptions of creativity. Second, an exploration of creativity from childhood through adulthood will be presented. Next, the relationship between self-esteem, art activities, and enhanced creativity in children will be presented followed by an exploration into the possibility of enhancing adult creativity. Finally, creativity as an inherent quality will be discussed and the research hypothesis will be offered. While this is not meant to be an exhaustive review of the literature pertaining to the various definitions, applications, and studies of creativity, it is meant to serve as a summary of those representative examples which pertain to this researcher's questions.

Genius Views of Creativity

In classical mythology, creativity, manifested in the forms of art, poetry, music and dance, depended on the presence of the Muse

for divine inspiration. As Plato said, "For the poet is an airy thing, a winged and holy thing; and he cannot make poetry until he becomes inspired and goes out of his senses and no mind is left in him (Bailin, 1994)." This view, though planted in ancient soil, may well germinate in contemporary thought about creativity: that it is the province of genius (Simonton, 1987), or an attribute of only a few individuals (Weisberg, 1993). Creativity may be seen as the result of "talent", which some individuals possess and some do not (Edwards, 1986). Edwards (1986) describes, then seeks to debunk, our traditional beliefs about talent and creativity by proposing that it is an arbitrary decision to ascribe to artmaking activities the label "God-given talent" when we do no such thing with reading, or other kinds of abilities. She concludes that creativity in the form of artistic activity seems "rare and out of the ordinary because we *expect* it to be rare and out of the ordinary (p. 7)."

Cobb (1967) describes the American "uplift of the masses, this awakening and training of their intelligence (p. 5)" as an example of the direction for creativity research and education. He focuses on identifying "gifted pupils", saying, "for in talent and genius lie all the potentialities for progress (p. 15)." Although he identifies the need of a society to "offer a receptive and appreciative market for the growth of talent and of genius (p. 13-14)," he clearly values the identification of those in the society who "possess genius"; who have creative potential. Sarason (1990) believes, however, that artistic activity is universal, but that our society prefers to hold fast to the view that creativity is a "special gift of special people (p. 81)."

Hall and Metcalf (1994), trace the path of "Artist as Mystic Seer" from the myths and legends of ancient Greece to a firm rooting in the Romantic period of art (roughly 1800-1850). In this era, popular belief held that it was the job of the artists and writers to "reveal general truths or to convey some deep essential reality (p. 81)." Although the art world has gone through transformations that attempted to refute the mystical nature of personal creativity, "the rhetoric surrounding artists is still dominated by magical descriptions of mysterious inner vision, creative drives, expressive urges, innate sensibilities, messages from the unconscious, and pure subjectivity, and these imperatives of the imagination are still considered to place artists outside of society and its understandings (p. 84)."

The "genius" view of creativity might be summarized by the following four assumptions: 1) that creative individuals possess a set of unique (personality) characteristics, 2) that those characteristics *cause* creativity, 3) that "genius" remains constant over a life-span, and 4) that "genius" is a psychological characteristic of the individual (Weisberg, 1986). A brief discussion of these four assumptions follows.

Unique Personality Characteristics. The characteristics of a "creative" person, according to the first assumption, would be identifiable and quantifiable in order to separate the creative from the non-creative person. Guilford (1987), in his Structure Of Intellect model, proposes that creativity can be defined by four traits: fluency, flexibility, originality, and elaboration. The assumption that creative individuals possess a set of unique

characteristics seems to underlie Guilford's 1950 address to the American Psychological Association. "Whatever the nature of creative talent may be," he asserted, "those persons who are recognized as creative merely have more of what all of us have (p. 36)." The "genius" view is undergirded by a belief in some special personality characteristics of the creative person, although for Guilford, these traits seem to be different from the ordinary as a matter of degree rather than in kind.

Correlation Equals Causation. If trait theorists consider that certain characteristics are unique either in their presence or degree in creative individuals, then the next assumption is that once identified, those traits must be the "cause" of creative behavior. Although a correlation may exist between the presence of traits and creative behavior (Guilford, 1975/1987), Weisberg (1986) cites a Getzels and Csikszentmihalyi study which suggests that no causation can be claimed.

In this 1968 study, Getzels and Csikszentmihalyi followed 205 art students from a prestigious midwestern art school in the United States through their training to the beginnings of their careers seven years later. The students scored close to college norms on conventional intelligence measures but far above norms on two tests of perceptual abilities. These perceptual abilities indicate traits which would be expected to produce creative behavior. No such predictive ability was discerned among the group. In a continuation of his studies on creativity, Csikszentmihalyi (1996) draws on this and other empirical evidence to suggest that personality traits alone

are insufficient to predict or describe creative persons or the creative act.

Lifespan Constancy. If genius remains constant over a lifespan, one might assume that a genius produces only masterpieces, and consistently produces them throughout his or her life. The reality of this false assumption is evident in the paintings of vanGogh (whose work did not even sell in his lifetime), the music of Bach (by present standards one of the best composers that ever lived, but dismissed for seventy-five years after his death as hopelessly old-fashioned), and Einstein's early rejection of the statistical laws of quantum mechanics. In the case of vanGogh and Bach, changing standards of societal approval are clearly a factor in evaluating creativity. This strongly supports Csikszentmihalyi's social context considerations which will be discussed in the Creativity as Inherent section. Gardner (1993) proposes that the nature of creativity may change with age, even in adulthood, in the sense that earlier works may be more daring where later ones tend to be more integrative. Whether creativity is interpreted differently by society over an individual's lifespan or the individual's work changes in response to some unidentified factors, the empirical evidence does not seem to support a notion of lifespan constancy with respect to genius or creativity.

Creativity As Psychological Characteristic. Finally, genius as an innate characteristic of the individual is challenged by Weisberg's (1986) notion that "there is nothing intrinsically unique about an artist to make them possess genius; we, their audience, bestow genius upon them (p. 88)." Although it is tempting to try to

isolate characteristics of the creative individual for the ease of testing, measurement, and educational applications, current research in the area of creativity seems to favor a broader, more integrated approach which will be discussed more fully in the section dealing with creativity as an inherent quality of humans.

Creativity: From Childhood to Adulthood

While the "genius" view is not well-supported empirically, it seems to be a popular idea. An unconditional acceptance of the "genius" or mystical view of creative behavior would explain why some adults don't consider themselves creative (Isaksen & Dorval, 1993). If creativity involves some external visit of the Muse, then an exploration into fostering creativity as an internal process- a possibility- is pointless. If, however, creative potential is to some degree an inherent human condition (Ebert, 1994; Markova, 1994), then an exploration of childhood creativity and adult manifestations of creativity may be seen as the next logical step in research.

Children engage in creative behavior (the urge to explore, investigate discover: Lowenfeld, 1987) as a condition of human nature. Lowenfeld (1987) offers that our concern should not be with *motivating* children's creativity, but being aware of the restrictions that we place on them that serve to *inhibit* this natural curiosity (p. 77, emphasis added).

Recognizing creative behavior in children is not difficult using various approaches to the definition of creativity. Ebert (1994) describes several of these approaches: Guilford's divergent thinking (a cognitive problem solving activity involving multiple possible

solutions), Mayer's novel solutions (a related cognitive problem solving activity with emphasis on novelty), Suran and Rizzo's restructuring (involving "unusual" and "useful" reconceptualizations of the problem or solution), and Piaget's problem-solving as a developmental concern. From a less cognitive approach, Carl Rogers (1961) conditions of "playfulness" and "openness to experience" as necessary for creativity can be seen to describe children quite accurately. All of these can be seen to apply to children's natural activities such that children are often labeled "creative." Sarason (1990) maintains that children are creative because of the diverse imagery that they transform and to which they give meaning (as in the imaginary uses for a broom- as a rocket, as a horse, as a bridge, and as something else tomorrow!) D. H. Russell is quoted by Urban (1991, p. 177): "Childhood and creativity belong together inseparably, for learning- including all processes of change which may lead to new forms of behavior- may be seen as a creative process." We accept the idea of children being naturally creative, but if children are thought inherently to hold creative capacity, then why are adults not also viewed as "naturally" creative? Does creativity disappear between childhood and adulthood?

One explanation of this discrepancy is offered by Cohen (1989): "A bridge is needed to connect what is called creativity in childhood to the type of creativity seen in eminent adults (p. 170)." If creativity is easy to identify in children, it may be in part because we focus on the *process* in which children engage *up to some point*, then begin to expect "products" as a measure of creativity as individuals near adulthood. Cohen illustrates the comparison: "A

four-year-old 'invents' the idea of a stencil from cutting folded paper versus a doctor inventing a new procedure for an operation (p. 172-173)." Both are considered "creative," but by different societal standards. The adult version seems to depend on some usefulness to society to be considered creative, whereas the child's version need only be new to her. Vygotsky's perspective on the development of creativity, summarized by Ayman-Nolley (1992), postulates that at points throughout childhood and adulthood, creativity changes across the lifespan as a result of life experience and sense of relationship to the world. The usefulness of the child's "product" may be in expression of creative potential, where adults are held to more rigorous standards and expected to generate useful products in order to be considered "creative."

In order to look at creativity in adults in any meaningful way for this study, a distinction must be made in the "product" of creativity such that it need not be of a revolutionary nature to be considered creative. Also, the process in which an individual engages himself or herself more closely resembles the child's model in Cohen's continuum: personal novelty, making new connections, demonstrating abilities (talents), developing hueristics, and producing information (p. 172-173).

Davis (1993) describes a "U-shaped" artistic development curve. In this model, preschoolers display a high level of creativity, followed by a late childhood trough (the bottom of the "U") where children are directed by literal interpretations of the world and may be considered less creative, and finally, the resurgence by some adolescents to creative artistic activity. In some cases, Davis

suggests that the "U" levels out and becomes an "L", because artistic activity is abandoned altogether. That not all individuals come out of the literalness phase- the trough- raises questions of why differences seem to exist among individuals. Sarason (1990) points to evidence suggesting that the curve is barely or non-existent in some cultures (see Sarason, 1990, p. 75). Even in the United States, the curve seems to be unreliable in predicting artistic development in schools where artistic activity is highly valued as a mode of learning. According to Sarason, societal expectations and valuation of creativity are a critical contributing factor to the phenomenon of limited or reduced artistic activity in adults from the level experienced in childhood. If, as a society, we valued creativity (specifically with respect to the production of, and participation in, artmaking processes, according to Sarason), creativity would not diminish. Sarason relates a conversation with educator Henry Schaefer-Simmern, who maintains, "Nothing in Western society more effectively subverts and extinguishes artistic activity than the judgment that the artistic product should be a copy of reality, a product of "memory" (p. 32)." That judgment has virtually blinded us to the creative capacity of people, especially in our schools, where children are required to imitate reality. Is it any wonder that they grow up to see themselves as uncreative? (p. 34)"

If, in order to see ourselves as creative adults, we must produce "something new or very rare and of value to the world (Cohen, 1989, p. 176)" as seen in the accomplishments of Darwin or Piaget, or be able to produce a "copy of reality (Sarason, 1990)," it is no surprise that we hold on to the mystical, magical view of the

Muse. Rollo May (1981) would suggest that we are not in touch with our creativity as adults out of fear of not reaching those standards: ". . . Many people never become aware of their most creative ideas since their inspirations are blocked off by this anxiety before the ideas even reach the level of consciousness (p. 191)."

Enhancement of Creativity in Children and Adults

Lowenfeld and Brittain (1987), in postulating stages of creative development, trace the appearance of artistic self-consciousness as the young child's exciting expression of self in artwork gives way to self-critical and introspective imagery by the mid- to late teens, much as in the U-curve described by Davis (1993). To Lowenfeld & Brittain (1987), this also represents cognitive and social development as manifested in art. To Sarason (1990), it would perhaps be a further reflection of society's tendency to value only that art which is a "copy of reality." As we become more aware of our culture's values, we manifest our creativity within the context of society (Rogoff, 1990). Along this line of thinking, creativity, particularly as manifest in artwork, can be seen to decline as children age and become more aware of the expectations and values of their culture. In the United States, where cultural preferences seem to value analytical and logical activity over artistic activity, creativity may be relegated to a narrow realm involving medical and scientific endeavors, or to "professional" artists (Sarason, 1990). We "prove" things by numbers and logical steps; disregarding art, dance, and poetry as valid ways of "knowing" things in the world. By cultural standards of value, the artistic and

creative processes witnessed in children may be encouraged in only a few cases, serving to perpetuate the "genius" myth.

The literature is rich with descriptions of art and creative processes in children (Eisner, 1987; Brooks, 1986; Goleman, et. al., 1992; Johnson, 1985; Kellogg, 1969; Lowenfeld & Brittain, 1987; Urban, 1991). Of these few examples from the field, Armstrong, Brooks, Johnson and Lowenfeld & Brittain offer artmaking activity as a way of enhancing creativity in children. Others (Cameron, 1992; Capacchione, 1979; Diaz, 1992; Edwards, 1986, 1989; Kent & Steward, 1992; Warner, 1991) offer artmaking projects with the goals of "discovering and recovering your creative self (Cameron, 1992)," "drawing on the power of art to tap the magic and wisdom within (Diaz, 1992)", "increasing your creative powers (Edwards, 1986)," and "freeing the creative spirit (Kent & Steward, 1992)," specifically for adults. The question remains whether artmaking activities have the effect of increasing individuals' self-perceptions of creativity. Studies to support or refute this relationship were not found in the literature.

While his written work has focused primarily on creativity of notable individuals and grand acts of creativity, Csikszentmihalyi (1996) offers some insight on transferring his findings to enhancing creativity in everyday lives. He offers prescriptive advice toward that end in the form of five suggestions:

- 1) cultivate curiosity and interest,
- 2) cultivate purpose and a reason to pursue the new and complex,
- 3) cultivate habits of strength,
- 4) internalize these habits into your personality, and
- 5) apply your creative energy in the domain of daily life.

Creativity as Inherent

Creativity, or creative products, seem to follow a developmental path: preparation (problem identification), incubation (information gathering and "mulling it over"), illumination (the "Aha!" experience), and verification (working out the details of the solution) (Wallas, as described in Wiesberg, 1986, p. 45). This path is relevant to "everyday" problems such as cooking a meal or choosing a detour route as well as those which create more notable products such as paintings, literary works, or vaccines (Moore, 1994; Torrance, 1988). Lowenfeld (1987) adds thinking abilities, attitude development, and intrinsic reward of the process to form a more contextual view of creativity.

Creativity studies have focused on personality traits, products, motivational aspects, and a measure of "genius," or talent. Csikszentmihalyi's (1990) view is that consideration of these aspects without also considering the societal context results in judgments of creativity which are essentially meaningless. Sarason (1990) adds that only when a society supports and nurtures creative acts will creativity be broadly manifest. This adds complexity to the identification, understanding, and quantification of the construct creativity. Or, as John Muir (quoted in Diaz, 1992) said, "When we try to pick out anything by itself, we find it hitched to everything else in the universe."

Ebert (1994), Kay (1994), and Sarason (1990) postulate that creativity is an inherent human quality, that we should be looking for creativity in the ordinary rather than in the extraordinary. Csikszentmihalyi (1990) adds that we are asking the wrong question

to ponder *what* creativity is. He substitutes the question, *where* is creativity? These authors claim that in a congenial environment, creativity will flow. Ebert (1994) sees the human brain as "a natural problem solving system," and Kay (1994) quotes Perkins' assertion that "the essence of invention isn't process but purpose," adding, "there are no specifically 'creative' cognitive processes."

An essential question that remains: Can individual creativity can be enhanced by artmaking or other activities; particularly outside of a societal context in which the environment is supportive for creative risk-taking behavior, and in which the creative products are valued? As Sarason (1990) writes, "the capacity for artistic activity, like the capacity to have *an* experience, is a normal attribute. . . that. . . requires opportunity, support, and understanding (p. 91)." In this way, "creativity is not a characteristic in and of *an* individual. At the very least, it requires a context that contains materials and opportunities that can be used for artistic purposes (p. 73)." Eisner (1983) maintains that creative abilities are developed by the opportunities provided to an individual rather than as a function of biological maturation. Social value of art processes may be a necessary precedent for creative acts to be expressed, or social valuation and creative expression may be concurrent and inseparable. Hunsacker (1992) looks at creativity through the lens of personal and societal experience, considering the person's own perception of whether the act is creative (bound by society's support or lack thereof) as supremely important. In this approach, creativity is considered inherent, but again, inseparable from societal context.

For the purposes of this study, the creative environment will be considered an important element. Problem solving, or creating art within given boundaries, will form the motivation for creative acts. "The formulation of a problem," said Albert Einstein, "is often more essential than its solution, which may be merely a matter of mathematical or experimental skill. To raise new questions, new possibilities, to regard old questions from a new angle, requires creative imagination and marks real advances in science (Edwards, 1986, p. 75)." Adult students will be encouraged to investigate these problems from new angles, to "rearrange" their knowledge of the world. "Creativity. . . consists largely of rearranging what we know in order to find out what we do not know. . . Hence, to think creatively we must be able to look afresh at what we normally take for granted (George Kneller, quoted by Edwards, 1986)." Natalie Rogers (1993), drawing heavily on her father Carl Rogers' Person Centered Therapy approach, maintains that a safe environment is critical in fostering creativity. Although creativity is considered to be an innate capacity of humans (see Csikztemihalyi, 1990; Ebert, 1994; Kay, 1994; Rogers, 1993; and Sarason, 1990), without both a safe personal environment and some societal support, it may languish in the adult population.

Summary

The question remains: Does artmaking activity increase self-perception of creativity in adults? The literature suggests that a supportive environment plays an important role. Whereas the definitions of creativity range from magical "gifts" to personality

characteristics to an ordinary quality which we all possess; this study allows individuals to define their creativity and look primarily at whether that perception changes over the length of the course. Creativity, a potential which everyone possesses to some extent, can be influenced by context. The researcher, therefore, will be concerned with creating a supportive and appropriate environment and with evaluating the creative processes as described by the participants themselves. Flexibility is essential to the structure of the course. It allows creativity to manifest at different times and through various media for each of the participants. This study seeks to offer adults an introduction to art processes within a supportive environment, and observe and record self perceptions of participants as they explore personal creativity.

Research Questions

Will adults who participate in an 8-week experiential art program change their self-perception of creativity? Will there be evidence in adult journals of qualitatively different creative behavior over the course of the program that gives additional support to the presence of "creativity?"

Methodology

Introduction

Testing creativity poses difficult problems which are inherent in the nature of the construct. Because creativity is domain-specific, manifesting itself in real rather than manufactured "problems" (Guilford, 1950: "think of unusual uses for a paper clip"), it becomes difficult to test meaningfully. Almost by definition, a "creative" answer would not be among the choices offered by test-makers. There is a concern about the lack of motivation to "be creative" for a test as a threat to internal validity of standardized creativity tests. Amabile, Goldfarb, & Brackfield (1990) describe intrinsic motivation as a necessary factor for the presence of creativity. Consequently, creativity tests may not detect the construct even if it is present (Piiro 1992; Weisberg 1993).

Due to the controversies in definition, interpretation of various instruments measuring creativity have been problematic (Cooper, 1991). Tests to measure creative potential, or thinking processes that are associated with creative problem solving, are often used. This addresses the cognitive approach to creativity, but doesn't address context, product valuation, or the individual's self-assessment. Was the act "creative" or novel for them? Creativity, by its complex nature, may best be studied from multiple viewpoints simultaneously. This study will use pre- and post-test scores on the Khatena-Torrance Creative Perception Inventory, and journal scoring of self-reported entries created as a part of the class to evaluate the participants' self-perception of their creativity.

Participants

Participants in this study were 7 self-selecting adults with an age range of 32-52. The class was conducted at an art center which operates as a non-profit community facility offering visual art instruction for children and adults at nominal cost. This class included a \$10 supply fee. The community in which the art center is located can be described as a rural community in the central United States with an approximate population of 7500. The participants, when enrolling, were given the opportunity to participate in the research study (and class) or participate in the class only. The course was advertised through the art center's regular newsletter including the schedule of all classes offered at the center during that educational term. Knowledge of the course may also have been obtained by word of mouth in the community. The self-described socioeconomic status of the participants ranged from lower to upper middle class. Racial identification was reported as white among the five males and two females in the study.

The Class

The experiential art class was offered in an 8-session format. Class sessions were held weekly for two hours in the evening in a comfortable and appropriate environment. In addition to artwork and keeping a journal in class at the art center, students were given writing and drawing assignments to be completed outside of class during the week.

The following schedule of art activities was planned:

1. Introduction/ pretest (Khatena- Torrance WKOPAY and SAM)

The pretest is given, students are introduced to the course, and questions/ reactions about artmaking activities and creativity are briefly discussed.

Bookbinding/ journal construction

Participants construct a blank book in which to work for the rest of the course. Tagboard, muslin, and drawing paper are used in the hand construction of a journal. Students marbleize paper (a decorative process using floating ink in swirled patterns) to use as endpapers in the book. Later weeks will involve individual decoration of the journals.

2. Drawing: contour, portrait

Drawing techniques are introduced, including these possible approaches: drawing to music, scribbling, drawing "emotions", contour drawing (outline of an object), blind contour drawing (drawing while looking at the object and not the paper), and portraiture.

3. Papermaking

Participants create handmade paper from recycled paper and paper pulp in a water tub. The process involves hand dipping a screened frame into the slurry mixture (water and softened pulp) and making additions of color or other materials to enhance the visual effect of the product. The handmade paper will be available for future artmaking processes, including collage and painting.

Collage

From the French *coller*, to glue, collage involves gluing materials together to form an image. Magazine photos,

handmade paper, found objects, fibers, fabrics, eggshells, feathers, beads, and construction paper may form the basis for this artform.

4. Watercolor painting

Using traditional watercolor paper or handmade paper, participants experiment with watercolor techniques including wet-in-wet, dry wash and various manipulations of the surface and paint for different effects.

5. Maskmaking

Participants assist each other with placement of plaster soaked cloth on their own faces to create a mask form of their likeness. These quick drying forms are then adorned in various ways using acrylic paint, beads, feathers, leather, raffia, and cloth.

6. Journaling activities

Participants are asked to write about the creative process each week. Questions asked each week are:

- 1) *"How would you describe your own experience and some of the choices you made (color, materials, subject matter, and your own participation level)?"*
- 2) *"What changes, if any, occurred during your involvement in this activity?"*
- 3) *"What did you notice about how you felt before, during, and after this activity?"*
- 4) *"How does this activity relate to creativity for you?"*

Participants also use their journals in class to draw ideas, or write about ideas for paintings, sculpture, collage, and drawings.

Each week, participants are asked to write or draw around a given "pod" idea. These include: Childhood experiences with art or creativity; adult experiences with art or creativity; family or community support for art or creativity; and self-portraiture.

While structure was planned, considerable flexibility was also assumed so that in response to the participants' levels of activity, change in any week's specific plan was possible. Any concerns or issues raised during the course were handled by referrals to appropriate professionals in the community.

Instruments

Khatena-Torrance Creative Perception Inventory. The Khatena-Torrance Creative Perception Inventory consists of two separate tests of creative self-perceptions: What Kind of Person Are You (WKOPAY) and Something About Myself (SAM). These inventories, according to their authors, are "based on the rationale that creative functioning is reflected in the personality characteristics of the individual (Khatena & Torrance, 1976, p. 10)." Factors identified by WKOPAY are: Acceptance of Authority, Self Confidence, Inquisitiveness, Awareness of Others, and Disciplined Imagination. Factors identified by SAM are: Environmental Sensitivity, Initiative, Self Strength, Intellectuality, Individuality, and Artistry. Sub-

scores for each factor, as well as total scores for each instrument will be calculated.

The Khatena-Torrance instruction manual provides normative data based on 4362 adult and adolescent male and female subjects. These scores were obtained from several locations across the United States and as such are considered by the authors as "quite representative of the college level American adult (Khatena & Torrance, 1976, p. 25)." The standardization of the scores results in a mean of 5 and standard deviation of 1.

In the instruction manual (1976), Khatena & Torrance report split-half estimated reliability, corrected to full length using the Spearman-Brown formula, of .98. Internal consistency reliability was reported to be .68. Test-retest reliability r_s were .98 (after one day) and .77 (after four weeks). Criterion validity is based on positive correlations with other (self-report) creativity tests. Correlations with Torrance Tests of creative Thinking are .46 and .60 in two groups of students.

Morse (1994) suggests caution to users of WKOPAY and SAM, following his reliability tests (N=2503). Lower reliability estimates were found in his study ($r = .85- .94$), though adults scores seemed to hold reliability better than children's scores, particularly on the WKOPAY.

In review of the Khatena-Torrance Creative Perception Inventory, Vernon (1992) faults both tests, suggesting the benefit of an addition of autobiographical information to close the gap between self-report information (claiming recognition and attribution of desirable traits) and reconstruction that relies on memory rather

than self-judgment. Cooper (1991) questions the content validity of both SAM and WKOPAY. She finds that the factors identified such as "good guesser, independent of others, and "eccentric," which are not qualities Khatena and Torrance associate with the construct "creativity," are, in fact, representative of the "underside" of some highly creative people. She takes this instrument to task for only recognizing a "goody-goody, supremely well adjusted (p. 202)" type of creative person.

As with any "forced-choice" personality questionnaires, participants may respond with the more socially desirable choice rather than the choice that describes their action in the world as perceived by others. Since there is both a pre-test and post-test score, however, respondents may want to appear "creative" to begin with, and not show a significant change on the post-test score, regardless of intervention. For these reasons, the scores obtained will not be the only way to evaluate self-perception of creativity. An addition of autobiographical information in the form of questions to be addressed in the journals will constitute further data.

Journal Scoring. Journals created by the students, including written and visual data, provided information regarding the creative process over the course of the study. Participants created hand-bound journals as a part of the artmaking component of the course. They wrote and sketched in their journals each week, both in class and in homework assignments. Participants were given specific questions about their involvement and process around which to structure their journaling to allow for consistency in the basis for scoring the journal accounts. Concepts which formed the basis of

the questions were taken from Cameron (1992) and Capacchione (1979) who propose journaling activities as a way to release creativity in individuals. Participants were asked to describe their creative process as they completed each art project. They were asked to write about what they did, how they did it, what decisions they faced and how they solved them. Finally, they were asked to describe how they felt about their completed product and the creative process. The primary researcher collected and photocopied journal accounts, and deleted any unique identifying information. Self-reported journal entries, as well as other entries not directly related to artmaking processes in class were interpreted using a coding system which was developed by the researcher and secondary investigator after the first class. Participants' responses to these four questions constituted the data:

- 1) *"How would you describe your own experience and some of the choices you made (color, materials, subject matter, and your own participation level)?"*
- 2) *"What changes, if any, occurred during your involvement in this activity?"*
- 3) *"What did you notice about how you felt before, during, and after this activity?"*
- 4) *"How does this activity relate to creativity for you?"*

The researcher maintained two additional sources of information, a weekly journal and an audiotape of each class. The written account included a schedule of activities, the researcher's reflections of the relative success of those activities, and the

processes observed during the class. The audiotape provided a more exact record of the instructions given, and modifications of the flexible schedule proposed. Participants were informed of the taping, and any transcriptions did not identify individuals by name. This additional information provided further observations regarding the process in which the participants were engaged during the class and served to corroborate data from observations made in individual's journals and describe context for both individual's and researcher's weekly journal accounts.

Research Design and Procedure

This study was a pre-test post-test design with an additional descriptive measure of the dependent variable.

Journal interpretation is described individually (what themes were noted by each individual through the course of the program), as well as the class as a group (including observations of themes or frequency of responses from week to week.)

Both WKOPAY and SAM allow scoring keys for factor orientation. Because of the low group numbers, scores from the Khatena Torrance Creative Perception Inventory were analyzed descriptively.

Procedure. The Khatena-Torrance Creative Perception Inventory was administered at the beginning of the first class, and as a post-test at the end of the last class. Journals were constructed the first evening, and entries began the first week. The journal entries were photocopied and assigned a number to insure

anonymity. Additionally, when the researcher made the photocopies, unique identifying information was obscured.

Results

Analysis of Data

To analyze the data, each participant's comments were first transcribed from their journal entries onto note cards. Each card contained a single comment, or in some cases two to three related sentences which described the participant's experience.

The cards were then separated into piles by the primary investigator, based upon similarity of content. The themes which emerged from this first sorting were as follows (listed in descending order of frequency; frequency numbers in parentheses):

- awareness (31): typified by comments such as insight, new meaning, realization, relatedness, revealing, "made me pay more attention", and references to new things or looking at things in a new way.
- enjoyment (29): all comments included the word "enjoy"; most about the activity, one commented that not knowing what came next was enjoyable.
- descriptive (17): these comments simply described what the participants did, with no affective comments or awareness of process or involvement evident.
- satisfaction (12): described feeling "OK" or that they had accomplished a personal goal in the project. Many described hesitation or concern followed by a feeling of "satisfaction".
- comfort (12): calm and relaxed was the pervasive theme describing this category.
- fun (10): participants used the word fun in describing their experience.
- pleased (10): most used the term "pleased" either referring to their end products or to their participation and to the interaction among classmates.
- encouragement (9): used the term encouraged, or "I think I can. . ." reflected a sense of hopefulness
- risk (8): Typifying this category were comments such as, "I was uncomfortable. . . I'm a chicken, but I was glad I could

- go thru with it", and "I am at risk. And that's what creativity is about."
- frustration (7): participants described frustration with their results.
- trouble (5): using the word, "trouble", describing difficulty achieving desired results.
- difficult (5): described difficulty in decision-making, technical skill (carving and new drawing technique).
- pride (4): a sense of accomplishment and ownership.
- felt great (4): literal wording, referring to accomplishment.
- needs work (4): refers to product or skill level of participant.
- excited (3): sense of eagerness to participate in new activity.
- cautious pleased (3): this category reflected a sense of being "acceptable, but. . . ." these were all from the same participant.
- felt stupid (2): from one participant, referring to inner dialogue while trying new activity.
- process (2): these comments simply referred to the participant's awareness of involvement in the process.

Each theme was color-dot coded to identify it from the others. These categories were cross-checked by the secondary investigator for consistency and agreement of labeling choices. Upon consultation with the secondary investigator, it was decided to conduct a second sorting to collect information regarding two other themes which were apparent:

participant's references to the group: these comments referred to camaraderie, interaction, and the awareness of others' experience, process and products.

participant's observations about their own (creative) process: (as differentiated from comments about the specific product which was created.)

Each incident of a "theme" (as described above) and each reference to group or process is considered to be a "unit" of

information. The data yielded 317 units of information, with the following breakdown by participant:

#2: 21 #6: 53 #8: 77
 #3: 62 #7: 29 #11: 20
 #4: 55

The color dots identifying themes were then placed on an 8x8 matrix to look for emergent patterns. The matrix allowed for additional information from the primary investigator to be added (observations journaled after each class). Headers for each week were the content of each class, as the particular week's task seemed very related to the responses.

Attendance (* denotes presence, -late enrollee)

	wk #1	wk #2	wk #3	wk #4	wk #5	wk #6	wk #7	wk #8
#2	*	*	*		*	*		
#3	*	*	*	*	*	*	*	*
#4	*	*	*	*	*		*	
#6	*	*	*	*	*	*	*	*
#7	*	*	*	*	*	*	*	*
#8	-	*		*	*	*	*	*
#11	-	*	*	*		*		*

Each individual will be described briefly, using demographic characteristics and observations of patterns in the journal entries as well as notes concerning the Khatena-Torrance test scores. Then the class content will be described by week, noting patterns of entries related to task, and including primary investigator's

journaling related to the week. Finally, overall observations will be made concerning the class as a whole.

Participant #2. This participant missed classes 4, 7, and 8. Six of the total 21 responses reflect an awareness of the creative process, four of those during week 6. The primary investigator journaled after week six an awareness that this participant had begun the collage project by carefully cutting, then watching others and deciding to tear images for his project. Asked about his choices and the change in style, he seemed unaware of the change and perplexed by the question. The resulting product, however, was very satisfying to the participant. His journal entry reflects an awareness of change, as he writes, "I'm not sure I can identify the changes which are happening." This participant commented on risk-taking during class #1, and themes of awareness, fun, and feeling good were also expressed in the first week. No responses were coded during weeks three and five. Participant #2 is a 41-year-old middle class white male.

Khatena-Torrance factor changes: Acceptance of Authority, Awareness of Others, Intellectuality, and Artistry reflected one standard score higher at post-test. Initiative raised from a score of "0" to a score of "4", and Self-Strength raised from "4" to "6". All other factor scores remained unchanged. Creative Perception Inventory remained unchanged, and Something About Myself reflected one standard score higher.

Participant #3. Participant #3 was present for all classes. This participant reported being "pleased" eleven of the 62 responses.

The first two weeks cautious pleasure was expressed, and later responses included an element of encouragement. Twenty responses reflected a description of process, during the week of blind contour drawing (where the focus is totally on process and the end product is considered non-important), and during the week of learning shading and tonal values. During the last three weeks, this participant expressed enjoyment. References to the group were not apparent during weeks four through seven. During week four, the primary investigator noted this participant becoming aware and vocal about "his own style" being different from a classmate's upon comparison; apparently with some pride. Fourteen of the responses occurred during week four (the task was shading and eraser drawing on toned paper.) This participant commented in class week seven that he had been physically not well, but when he came to class he felt immediately better. He was noted by the primary investigator to be involved and "thriving." Participant #3 is a 51-year-old upper middle class white male.

Khatena-Torrance factor changes: Acceptance of Authority, Intellectuality, and Individuality scores decreased one standard score from pre-test to post-test. Self-Confidence, Self-Strength, and Artistry increased one standard score. Other factor scores remained unchanged. Creative Perception Index score increased one standard score while Something About Myself total score remained unchanged.

Participant #4. This participant missed classes 6 and 8 due to personal concerns. Overall, the number of responses decrease dramatically over time, with 17 units recorded week one and only

two units week seven. References to group interaction were evident in the first two weeks. Participant referred to "increased comfort levels" and "increase in relaxation" during the first class, and to a "strong sense of loneliness" upon leaving class two. The participant's early responses of enjoyment, comfort and satisfaction are not reflected in later entries, and the participant expressed discomfort and aggravation (this is a "pain") week five, referring to the journal entries. The primary investigator's journal noted that personal interaction was important to this participant, and "perhaps cohesiveness (within the group) and helpfulness (to others during maskmaking project) were something this participant needed." The primary investigator also noted this participant's satisfaction and awareness week four, when participant declared, "I like this (drawing), I'm not doing any more to it." Participant's journal reflected fun, encouragement, awareness, and satisfaction during that week. The participant commented on week seven, "It would be nice to have a place between frustration and motivation. At times I think I'm my own worst enemy- I get in my way too much by not allowing the trial and error aspect of creation to evolve." The only two entries week seven reflect frustration and awareness of process. Post-test scores of the Khatena-Torrance instrument were unavailable due to her class absence and subsequent move out-of-state. Participant #4 is a 43-year-old middle class white female.

Participant #6. No absences were recorded for participant #6. This participant made regular references to the group, commenting on week one, "I needed the leadership of the instructor and the

motivatedness of the group.", and in week two, referring to the "camaraderie and safety" among the group. Expressions of satisfaction are evident in the first three and the last three classes, but not in class four or five, when the six responses are limited to enjoyment, awareness, and a reference again to the group. Comfort was expressed weeks 2, 3, 6, 7; product and process awareness week 8. Pride was identified week one and not again. Participant referred to coming to class feeling rushed from his outside life, and being distracted by an upset stomach on two occasions- weeks two and three. He repeatedly refers to "calming down" during the progression of the class. He refers in week four to being "carried along as floating a river" if he shows up (for class). Weeks six, seven, and eight refer to feeling calm once and relaxed three times. Participant #6 is a 44-year-old upper middle class white male.

Khatena-Torrance factor changes: Self-Confidence and Inquisitiveness scores decreased by two standard scores, from "5" to "3". Intellectuality decreased by one standard score. Other factor scores remained unchanged, as did the total score for Something About Myself. Creative Perception Index increased from "6" to "7."

Participant #7. Participant was present for all classes. This participant was noted by the primary investigator as commenting on the first class, "You don't understand. I don't write- and not without lines- and I don't like to mess up blank white pages." He reflected about his risk taking and comfort during the first class. Responding to questions of his own perception of artistic development during his life, he reflects that there is "no activity during this time of life (currently) that could be considered creative or artistic", but also

expresses a willingness to "open up to new areas of art" during week five. Primary investigator noted that this participant's perfectionism seemed to be holding him back (week 6). "Unblocking his creativity seems to hinge on him not having such rigid standards of achievement." His journal reflected little of his process compared to observations of his involvement and to his verbal comments, which both indicated intensity and delight with what was happening. His comment during week seven was, "The greatest change I've noticed has been how I appreciate art and creativity in our everyday life. Things that I have taken for granted in the past now have new meaning to me from an artistic view point."

Participant #7 is a 52-year-old middle class white male.

Khatena-Torrance factor changes: Disciplined Imagination decreased one standard score, Individuality decreased two standard scores, from "6" to "4." Environmental Sensitivity, Self-Strength, and Intellectuality increased one standard score; and Artistry increased three from "0" to "3." Other factors remained unchanged, as did Creative Perception Index. Something About Myself total score increased from "4" to "5."

Participant #8. Participant #8 was absent for classes #1 and #3, but was interested in "catching up" and doing the "homework" assignments from the missed classes. This explains in part the heavy responses in week four (25 units). Participant reflects on process regularly throughout the classes, and only refers to the group during classes two and four. early responses of satisfaction, comfort, and enjoyment give way by class four to responses of excitement, pleasure, pride, and fun. Weeks five and six reflect

feeling "great", satisfaction, and "loved" the process and choices of color and materials for the collage cover of her journal. In entries, this participant refers often to changing her process to reflect her knowledge of wanting "it a certain way and accomplishing that goal." Overall, she expresses an optimism that she will learn something and that she can create new things, reflected in comments such as week eight's, "I started out OK but got frustrated. . .then I changed and thought what the heck let's see what I have and go for it. I did and it turned out fine." Participant #8 is a 32-year-old lower middle class white female.

Khatena-Torrance factor changes: Acceptance of Authority, Inquisitiveness, Intellectuality, and Individuality decreased one standard score. Artistry decreased three from "3" to "0." Creative Perception Index increased from "5" to "6", while Something About Myself total score decreased from "4" to "3."

Participant #11. This participant joined after the first class and was absent classes five and seven. Participant commented during the first class, "I haven't drawn in 40 years. I'm pleasantly surprised at the results!" There were few responses overall (20), and participant's early encouragement was not repeated in journal entries after week two, though enjoyment was noted week four. Primary investigator notes frustration and negative self-talk; participant notes frustration and "trouble" as responses weeks four and after make-up homework week seven. Awareness of process weeks two and three. Primary investigator also notes that this participant sought encouragement and cautiously responded when asked to not compare his product to others' or to a photographic

ideal. He verbally commented with a cautious optimism at the end of classes that he "will never see things the same way." Participant #11 is a 49-year-old middle class white male.

Khatena-Torrance factor changes: Inquisitiveness and Artistry increased one standard score, while Self-Strength increased two standard scores. Disciplined Imagination and Environmental Sensitivity decreased one standard score. Other factors remained unchanged. Creative Perception Index increased from "5" to "6", while Something About Myself total score increased from "4" to "5."

Class #1. Participants were introduced to the research component and requirements of the class, given permission to participate regardless of the research participation, and volunteers were asked to sign consent forms. The Khatena-Torrance instrument was administered without introduction of content.

As an introductory icebreaker, a roundtable discussion was conducted around the starter sentences, "Real artists are_____", "Artists are_____", and "Creative people are_____." Responses were jotted on a large paper on the wall. The next round of responses was to the starters, "I could be more creative if only_____", and "The thing that keeps me from being an artist is_____."

The class was in agreement that their responses of what "creative people are" usually didn't meet their descriptions of themselves. Primary investigator posed the suggestion that we may block the pathways to our own creative selves by these ideas.

The history of bookbinding and of marbleizing were discussed during a demonstration of each process. The class members began working on journal construction, breaking two at a time to marblize paper.

The marbleizing "seemed to delight everyone", from observations made by the primary investigator. Most participants seemed surprised at their very pleasing results, and appeared to feel instant success. The class atmosphere was encouraged and hopeful. The primary investigator noted that planning for each class needed to have a predicted success as well as a "stretcher": an activity designed to go beyond current levels of knowledge and comfort, thereby "stretching" the participant's experience. This class provided both, as marbleizing was received as successful and pleasing, and the more technical and exacting requirements for bookbinding allowed participants to assist each other in measuring, holding and gluing. Interpersonal class bonds are beginning to be evident from this participatory and cooperative involvement, though it should be noted that many of the participants knew each other previous to the class.

Homework assignment (in addition to four responses asked each week on reflections of class participation- see page 30 for content) was to draw a person (head only) from life, draw a chair from life (not memory), and assess and respond to personal reactions to these drawings.

Journal responses as a class were numerous (56 units) with considerable focus on description of process (14 occurrences.) Risk-taking, satisfaction, and enjoyment were also prevalent

themes, as were references to excitement and fun. The only "negative" response was one participant noting that something "needs more work."

Class #2. Five new participants began the class this week, four by word-of-mouth new enrollment and one who was enrolled but absent week one. Past participants began by finishing their bookbinding while the Khatena-Torrance was administered to new participants after a repeat of last week's invitation and consent form signatures. Peer teaching occurred without instruction or prompting, as participants were eager to share their new skills at bookbinding and marbling.

Drawing instruction was introduced by attempting to "demystify" drawing; presenting it as a skill rather than magic that only "experts" can perform. The class was informed that several drawing skills will be taught as a basis for learning to pay more attention to their worlds, to learn to "see."

Blind contour drawing techniques were taught in which the participants look only at the object being drawn, and not at their drawing surface. The effort is concentrated on observing the contour, or outline, of the object in all its detail, and not on creating a beautiful picture. The participants were initially self-conscious about drawing without looking at their paper. Once comfortable with the directions, participants reported "loving" this exercise, as their worries about creating something "beautiful" were relieved by the process of observing and recording as the basis of this exercise. This was followed by an exercise in which participants spent most of their drawing time looking at the object being drawn, with

occasional glances at their paper for placement of pencil and composition of drawing.

Homework assignment was to pick out a favorite shoe, remembering the time spent with the shoe and how it feels, and to notice details of the shoe while drawing a blind contour and a modified blind contour. Assessments of these drawings were also invited.

Journal responses this week were again numerous (66 units) and included group references (10) as evidence of awareness of and response to each other becomes apparent. Process awareness (12 units) was also noted. Six instances of simple description (this is what I did) were recorded, and seven units described "trouble", "difficulty", or "disappointment." Seven units described awareness of creativity or personal involvement.

Class #3. Intentions to begin early this class with maskmaking were squelched by early arriving participants' eagerness to finish gluing marbled paper in their journals. Some flexibility of instruction seemed appropriate to honor the curiosity and involvement in process.

Some history of masks and exploration of the meanings and uses of masks was discussed during a demonstration of plaster cloth maskmaking. The process involves one participant lying down on the table with tissue across the individual's eyes and mouth while strips of plaster-soaked cloth are placed across the face until the entire face is covered (except for small holes left at the nostrils to breathe.) The process takes about thirty minutes until the mask solidifies enough to remove it from the face. Participants were

eager to begin, working in pairs or with several plaster-placers helping create one single mask at a time. This activity divided across gender lines, with the males helping males with maskmaking, and considerably more sloppy in their placement; and females helping females. No explanation is offered by the participants in their journals for this occurrence.

The primary investigator noted a general bantering and cohesiveness which developed among group members during this activity. As the masks were being built up by adding plaster layers after the shape was set and the mask off the individual's face, the class was shown a drawing demonstration on facial proportions. Comments ranged from expressions of fun to the realization that these participants felt that they "would never try this without this class." Primary investigator observed a sense of participants' revelations and debunking personal myths about drawing, seeing, and personal creativity. While it was not reflected in the journal comments, primary investigator noted an awareness of others during the activity of maskmaking, and an almost childlike delight in the process and product. Frustration levels seemed to increase when the drawing task of facial proportions was introduced.

The homework assignment was to create another portrait from life, or a self-portrait in the mirror, using the new information on proportions and contours, and including the heightened awareness from the process of maskmaking.

Journal comments decreased this week to 34 units, and included expressions of comfort (3), fun (2), awareness (6), and one unit each of procrastination, confidence and yearning. Six

references were made to process and four referred to group interactions.

Class #4. The class was virtually self-starting this week, as participants were eager to start on their masks as they arrived. Not waiting for formal instructions, they only asked for assistance with choice of paint or brushes to begin their decorating processes.

Two participants asked for feedback on their homework portraits, one expressing pride and the other expressing frustration. One participant offered to help a classmate who had been absent make a mask.

This class focus was on shading and values. A still life set up with a cube, a ball, a cylinder and a cup was set in the center of the room with strong side light. The intention was to observe composition and drawing skills and to describe shape and volume through tonal values.

The primary investigator noted that this task was "daunting and generally frustrating to the class," but that the opportunity arose to discuss the link between frustration and incubation (preceding the "aha" experience of realization of a new skill or awareness.) Additionally, this technique was offered as another tool, not the only way to represent images. The atmosphere was described by the primary investigator as "draggy," and participants were described as "subdued" in general this class.

Homework assignment was to rub graphite shavings onto a page of their journals, creating a gray surface. They were then asked to erase the highlights of their features, thereby "drawing" a likeness. Pencil shading was encouraged to force the darkest values.

It was suggested that all tools learned to this point be used in this assignment: facial proportions, value scale, contour awareness, and learning to look more carefully to see more completely.

Journal comments were numerous this class, with 73 units, due in large part to participant #8, whose journal included remarks from make-up assignments from a missed class. Process comments were significant (20), and only two references were made to the group. Awareness of creativity was also a frequent occurrence, with 8 units. Frustration (4) and disappointment (3) were evident, as were 8 comments expressing enjoyment.

Information on the development of the creative process was elicited from questions regarding each participant's own memories of his or her childhood artistic experiences. The journal entries regarding development failed to yield significant information that could be generalized about the properties or developmental process of creativity.

Class #5. This class focused on personal style and differences in markmaking. As the class filtered in, they immediately began to work on projects in process. The principal investigator noted that although the participants initially seem task-oriented, "the process seems to take over" and participants get lost in their work.

Playfulness and childlike wonder of the artistic process was approached by reading a children's book together. Line quality was introduced by looking at different styles of famous artist's drawings. We discussed how the lines were made: quickly or slowly, with hard or light pressure, and playfully or deliberately.

Participants were encouraged to be true to a personal style rather than focusing on a pre-conceived end product.

Homework assigned this class included journaling and drawing about the development of creativity in each participant.

Participants were asked to respond to the climate for their creative development, including challenges and outcomes in five periods of life (to be age-boundaried by each individual): early childhood, school years, young adulthood, mid-adulthood, and later adulthood.

The primary investigator noted that group dynamics included a fairly "competitive" banter between several of the men.

Investigator noted that adjustments should be aimed at neutralizing the competitive aspects and continuing to encourage "effort, process, and individual style." An additional awareness was observed at working toward closure and application of the class to each individual's life, a transfer of learning.

Journal comments numbered only 26 this class, representing a general steady decline in number of responses over the class. Pleasure and satisfaction number two units each, ten references are made to process, and one to group. Three units addressed awareness, and one each described risk, satisfaction, pleasure, and "loved it." Two responses (by the same participant) expressed displeasure and futility.

Class #6. The class began with collage demonstration for decorating the cover of the journals. A time limit was imposed on the collage in an effort to allow time for introducing watercolor. The primary investigator reflected that "this might have failed for both activities. The time rush prevented all but a cursory (and I

suspect, frustrating) introduction into watercolor. Additionally, most didn't finish the collage effort."

Homework assignment was to draw a 6"x 8" image for use in printing process the following week.

Of the 29 journal comments, nine were references to process. Five indicated enjoyment, one each reflecting disappointment and difficulty, and two simply descriptive. Two units of satisfaction were noted.

Class #7. This class began with an explanation of the printmaking process, showing the difference between woodcut and monoprint, and inviting participants to transfer drawings to linoleum blocks in preparation for next week's class. A demonstration of papermaking followed, and most of the remaining class time was spent making handmade paper and decorating it with colored pulp and dried flowers.

There were only 17 journal responses this class; four expressing process awareness, two indicating awareness of their own creativity, two indicating enjoyment, and one each comfort, fun, and encouragement.

Primary investigator was aware of the involvement of the participants in the process of making paper. While one participant was very perfectionistic about the paper being perfectly formed from the mold, most were very flexible and responsive to the product as it happened. Frustration was not reflected in the journal entries, but was evident in the class as the mix of cotton in the paper pulp yielded a technically difficult paper product. The edges of the paper were more likely to stick and tear for the inexperienced

papermaker. After many trials, everyone was successful in creating several sheets of decorated paper, many commenting how "easy" making paper really was!

Class #8. The combination of fewer participants (only five) and the end of the classes yielded a mixed reaction and a change in group dynamics. Several of the participants were talking among themselves in an effort to keep the classes running, or at least begin another class: "part two." The participants began carving linoleum blocks almost immediately; while the primary investigator set up a monoprint demonstration to coincide with their work. Class members had asked to see the print process, and were intrigued and energized by watching the four-color print emerge into a recognizable image. For the most part, the demonstration served as motivation for participants to begin their own printmaking process.

This technical process, thinking in reverse (carved image produces the mirror image when printed), and the time-consuming carve and print process, potentially held more frustration than any other single process. This was not reflected in either the journals or in direct observation. There was a definite decrease in energy as the participants wound down and began refocusing their energy to life away from the class.

Journal responses were scant (12 units) and reflected comfort, fun, frustration, satisfaction, difficulty, group, and awareness of process. One participant termed the last session "bittersweet", and added, "as a slice of life, this class gives me much for application throughout my days- which I have already experienced."

See Appendix -Table 1: Khatena-Torrance CPI Scores

While the small number of participants in this study preclude inferential statistical analysis of factor scores on the Khatena-Torrance Creative Perception Inventory, it may be useful to note the interpretations of the individual factors according to the test authors (Khatena & Torrance, 1976, pp. 18-19, 30-31.):

Acceptance of Authority: relates to qualities of being obedient, courteous, and to accepting the judgments of authorities.

Self-Confidence: relates to being socially well-adjusted, self-confident, energetic and curious, thorough and remembering well.

Inquisitiveness: relates to always asking questions, being self-assertive, feeling strong emotions, being talkative and obedient.

Awareness of Others: relates to being courteous, socially well-adjusted, popular or well-liked and considerate of others, and preferring to work in a group.

Disciplined Imagination: relates to being energetic, persistent, thorough, industrious, imaginative, adventurous, and never bored, attempting difficult tasks and preferring complex tasks.

Environmental Sensitivity: relates to openness to ideas of others; relating ideas to what can be seen, touched, or heard; interest in beautiful and humorous

aspects of experiences; and sensitivity to meaningful relations.

Initiative: relates to directing, producing, or playing leads in productions; producing formulas or new products; and bringing about changes in procedures of organizations.

Self-Strength: high loadings indicate self-confidence in matching talents against others; resourcefulness; versatility; willingness to take risks; desire to excel; and organizational ability.

Intellectuality: indicates intellectual curiosity enjoyment of challenging tasks; imagination; preference for adventure over routine; liking for reconstruction of things and ideas to form something different; and dislike for doing things in a prescribed routine.

Individuality: indicates a preference for working by oneself rather than in a group; seeing oneself as a self-starter and somewhat eccentric; critical of others' work; thinking for oneself; working for long periods without getting tired.

Artistry: indicate production of objects, models, paintings, carvings, musical composition; receiving awards of prizes or having exhibits; production of stories, plays, poems and other literary pieces

Observations

There are questions concerning the reliability of Khatena-Torrance scores, specifically with reference to at least two incidents of irregularity of response noted by the scorer. In these cases, a specific question of accomplishment ("I have planned or carried out experiments", "I have painted, drawn, designed, sculpted, carved on wood, made models of my own design, done pottery, or creative photography") were answered in the affirmative at pre-test and in the negative at post-test. Explanations for this could be as simple as carelessness or as complex as the individual re-evaluating the meaning of the statement (with implications for self-perception of creativity.)

For more information concerning the normative data for the Khatena-Torrance, please refer to the presentation in Chapter 3. Readers are reminded that standardization resulted in a mean score of 5 with a standard deviation of 1.

Four of the six participants' Creative Perception Index scores were higher at post-test by one standard deviation than at pre-test. The other two remained constant. SAM scores showed gains of one standard deviation in two cases, one score was lower by one standard deviation, and the other two remained constant. Due to the penurious amount of data, factor scores and index scores should be cautiously interpreted as single measures of self-perception of creativity. However, adding each individual's journal data along with the primary investigator's observations to the test scores begins to more fully describe each individual's experience.

Primary Investigator's Summary

Overall, the journal comments seemed to have good face validity, as the primary investigator noted a broad range of comments including frustration, pleasure, and clear awareness of their involvement. Respondents seemed candid with their remarks, though journaling may have been an unfamiliar format for many. No time was spent in instruction in that regard. Additionally, the focus on "process" was thought to be new to many of the participants, as most seemed intent on what the products were going to look like, and considerable time was spent verbally coaxing thoughts addressing each individual's process: "What was it like for you to experience this?", "How did you come to a decision about that color, shape, line, etc.?"

Summary and Conclusions

Nineteen themes emerged within the journal scoring, and these are consistent with descriptions of the creative process found in the literature. They are further substantiated by changes in factor scores of the Khatena-Torrance CPI. Amabile, Goldfarb, & Brackfield's (1990; see also Amabile, 1995) discussion of social influences on creativity are supported by the 25 references to the group and the support participants described having felt in the class environment. These also are supported by the contextual theories of Csikztemihalyi (1996) and Sarason (1990). The preference for working in a group is substantiated by consistently high scores on the CPI factor "Awareness of Others" (all participants scored "6" at post-test) and by decreases in post-test scores of the factor "Individuality", which the manual (1976) describes as indicating preference for working by oneself.

The 31 instances of "awareness" in the journal entries indicate more perception of creativity in the participants. The results of this study begin to approach Hunsacker's (1992) ethnographic perspective of creativity, in which what an individual sees himself or herself doing (as related to a creative act) is important. This is informed by the individual's personal experience, cultural experience and expectations or definitions of what is creative. Clearly, the participants defined creativity themselves, and responded in their journals from that personal definition, but equally clearly by their responses, there was some societal awareness of the construct and its products from a larger, societal view.

The literature is not clearly in agreement on the construct of creativity, particularly to "Big C" creativity, which would encompass geniuses and prodigies, the famous among us which most would agree are "creative"; and "little c" creativity, which is postulated to be the potential inherent in all of us to create or be creative (see Csikszentmihalyi, 1990.) This study sought to look at "little c" creativity, but class members' responses to the term "creativity" indicated an influence of an expectation of "Big C" creativity, as evidenced by an almost constant criticism of the value of an individual's own work. "I'm just not creative" was a frequently heard comment, as if creativity were the domain of someone else. Weisberg (1986), summarizes the genius view of creativity as being "caused by" a set of psychological characteristics which is present at birth and remains constant over a life-span.

Little evidence was found in this study for the presence of "genius" views of creativity, although some of the responses during the first class to the discussion topics "Artists are. . . ." and "Creative people are . . ." included responses that indicated beliefs that the Muse must be present for creativity to be elicited. Responses typically indicated that a mystical or magical process was at work. As was reported, the participants' definitions of creativity did not fit their general views of themselves. However, responses in the journals did not support the genius models of creativity, as participants described what creativity was like for them, and related their personal products to the construct of creativity. The discrepancies between their views of creativity and

views of themselves as creative seemed to narrow as they became aware of their own involvement in "creating".

This study seems to have most relevance to the work of Sarason (1990), Csikszentmihalyi (1988, 1990, 1996), and Amabile (1990, 1995) in that the responses clearly pointed to awareness of context and environment. These authors claim that a congenial environment, both immediate and societal, provides the necessary undergirding for creative acts to flow naturally. This study attempted to provide such an environment, but provided no mechanism by which to assess the effect of environment, or even for individuals to describe the effect of opportunity on their perception of creativity. Indications from the journal entries suggest that this would be a natural direction in which to direct further research.

The definition of creativity for the purposes of this study was considered to be "a process in which individuals engage that results in a new or original recombination of previous "knowledge-experience" with new "knowledge-experience" in the present moment: a "product" to solve a "problem". The participants did engage in that process, indicating their awareness of their new "knowledge-experience" in journal entries, and in some cases eluded to their own creative growth.

Limitations

Only one class of 7 adults was available for participation in this study. This was factor of the physical space and equipment restrictions (tools and art supplies) at the art center where the class was offered, as well as attrition of enrolling members who

chose not to participate in the research study. No control group or comparison data were used.

The participants were self-selecting adults who chose to enroll in the class in the local art center. Therefore, there is a possibility that these adults were more likely already to possess personality characteristics of creativity, if that is a significant factor, and that they are not representative of the general population.

Participants were aware that "creativity" was the focus of the study, which could lead to confusion about interpretation of the results: is increased creativity the result of the art process or of the knowledge of the study and the psychological environment of the class?

Participants were self-reporting, both in responses to questions on the pretest and in writing about their experiences in their journals. There is always a danger that desirable characteristics may be falsely claimed. There is some awareness of the qualities associated with creativity, both as a result of the pretest, and as a result of general knowledge. Individuals may subjectively claim these qualities.

Some class members chose to enroll in the class but did not choose to participate in the research study. Some participants did not complete the class, due to personal reasons, a mortality risk to an already small number in the study. Further, all participants did not participate fully in the out-of-class exercises, either because of personal time constraints, or because they felt intimidated by the nature of the tasks. If an individual has identified himself or

herself as "non-creative", and includes in that identification an assertion, "I can't draw," the requests to draw outside of class may have seemed overwhelming. While this condition may have provided less raw data to evaluate, the nature of the class and the study is to look for changes in *self-perception* of creative behavior, and to identify potential activities, such as artmaking, that might enhance that individual's self-perception of his or her creativity.

The researcher was also the instructor, which involves the possibility of introducing experimenter bias. Also, the issue of the "freeing" psychological environment that the instructor/ researcher attempted to create for the workspace is a potentially confounding variable. The environment may be more related to creativity than the art processes themselves. This study had no mechanisms to separate the effects of art processes on creativity from the effects of an accepting and supportive environment on creativity. As Johnson-Laird (1988) asserts, "to be creative is to be *free* to choose among alternatives (p. 202)."

Suggestions for Further Study

Participants seemed uncomfortable with the journaling aspect of the study, and appeared reluctant to invest much time or energy in this aspect of the class. Consequently, more time might be spent in journaling instruction, encouraging full participation so that participants become more familiar with that mode of gathering data and their intimidation may be removed as a potential confounding variable. In addition, a more in-depth processing of experience consisting of interviews with participants might also yield more

detailed information regarding each individual's experience as it relates to creativity.

This study showed considerable awareness of group involvement and context by the responses in the participants' journals; yet no part of the design allowed for consideration of the importance of either group interaction or context. Future studies may seek to provide an element in the design that illuminates these areas. Drawing on philosophies of group process in the field of counseling psychology, one suggestion would be to design a session each week in which the participants discuss their experiences of the process, their own perceptions of the importance of context, and meanings of creativity. This would certainly circle back to the work of Rogoff (1990) in which the cultural context is considered an inseparable angle from which to study creativity.

Conclusions

This study sought to observe and record the artmaking process and its effects on self-perception of creativity in a group of adult students. Data were gathered from pre- and post-test administrations of the Khatena-Torrance Creative Perception Inventory and from journal entries made by the participants on a weekly basis. Journal entries were compared with notes kept by the primary investigator on a weekly basis, yielding a broader interpretation of the class experience.

Individuals in the study showed a high presence of awareness and enjoyment of their creative process, and indicated a strong sense of group cohesion and support. These are indicative of

creativity in the works of Amabile (1995), Csikztemihalyi (1996), and Sarason (1990). Reflections of the primary investigator indicate that the *level* of experience witnessed during the classes and in conversation with individual participants was not reflected in the journals. This includes both intense self-doubt about personal abilities as well as an almost elated joy with personal successes. Participants seemed to show an immediate awareness and increase in self-perception of their creativity, but it is not known how this class has affected *ongoing* perceptions of creativity in the participants, though indications at the end of the last class would suggest that participants would "never look at things the same way." Participants seem individually and collectively aware of new abilities and displayed considerable awareness of their own involvement in the process of creating, but it remains unclear how this transfers to life away from this class, or more specifically, to their self-perception of their own creativity.

Not enough participants were available to yield meaningful statistical analyses of the CPI scores, and journal entries were highly variable in frequency and content, so conclusions must be tentatively drawn from the data available. It is felt by the primary investigator that design flaws in the study prevented more robust conclusions being drawn, and that the indications from participants' journal entries and the literature reviewed for this study both support additional research in this area.

Participants appeared to alter their self-perceptions of creativity more than was evident in any of the data gathering sources designed for this study. This is primarily indicated by

participants' comments such as "I will never look at things the same way." While it would be compelling to assume that these individuals perceived themselves differently with respect to their own creative abilities after this class, the data simply were not sufficient to support that conclusion. However, several recommendations for further study may be found in the preceding section of this study.

The value of this class for the participants seemed to be in trying something new and becoming aware of abilities and developing some confidence in an area previously untapped; i.e. the "process". As mentioned, there was considerable emphasis on context, environment, and personal interaction. Whether these ingredients are encompassed in an individual's self-perception of creativity, or whether these concepts have implications for other areas of counseling could be the foci of future studies.

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APPENDIX

TABLE I

Test Results from the SAM and WKOPAY Khatena-Torrance Tests

Participant

	2	2	3	3	4	4	6	6	7	7	8	8	11	11
	pre	post	pre	post	pre	post	pre	post	pre	post	pre	post	pre	post
Acceptance of authority	3	4	5	4	2	-	2	2	4	4	4	3	2	2
Self-confidence	4	4	5	6	3	-	5	3	4	4	4	4	4	4
Inquisitiveness	5	5	4	4	3	-	5	3	5	5	6	5	4	5
Awareness of others	5	6	6	6	7	-	6	6	6	6	6	6	6	6
Disciplined imagination	5	5	5	5	3	-	6	6	6	5	5	5	6	5
cpi	5	5	3	4	5	-	6	7	4	4	5	6	5	6
Environmental sensitivity	7	7	6	6	6	-	5	5	5	6	7	7	4	3
Initiative	0	4	0	0	1	-	0	0	4	4	0	0	6	6
Self-strength	4	6	4	5	5	-	3	3	5	6	5	5	4	6
Intellectuality	5	6	4	3	8	-	4	3	4	5	4	3	3	3
Individuality	5	5	5	4	3	-	3	3	6	4	5	4	5	5
Artistry	5	6	4	5	3	-	3	3	0	3	3	0	4	5
sam	5	6	4	4	5	-	3	3	4	5	4	3	4	5

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 03-25-96

IRB#: ED-96-094

Proposal Title: THE EFFECT OF PARTICIPATION IN AN EXPERIENTIAL ART PROGRAM ON SELF-PERCEPTION OF CREATIVITY IN ADULTS

Principal Investigator(s): John S.C. Romans, Leslie Anderson Cochran

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved with Provisions

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING.

APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

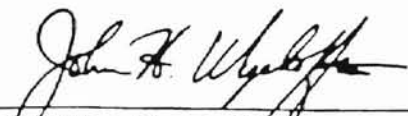
PROVISIONS REQUESTED:

The K-T Inventory asks for quite a bit of identifying information. The methods to be used to keep these identifier confidential (or for their removal) is not addressed in the informed consent form or in the IRB application. Please provide clarification regarding how this identifying information will be handled.

PLEASE DO NOT PROCEED WITH THIS STUDY PRIOR TO RECEIVING FINAL APPROVAL.

If you have any strong disagreements with the reviewer's recommendations, you may respond in writing to the executive secretary (Jennifer Moore, 305 Whitehurst, 744-5700) or request a meeting with the full IRB to discuss the recommendations.

Signature



Chair of Institutional Review Board

Date April 2, 1996

VITA

Leslie Anderson Cochran

Candidate for the Degree of

Master of Science

Thesis: THE EFFECT OF PARTICIPATION IN AN EXPERIENTIAL
ART PROGRAM OF SELF-PERCEPTION OF CREATIVITY IN
ADULTS

Major Field: Counseling and Student Personnel

Biographical:

Personal Data: Born in Cushing, Oklahoma, On June 7, 1959, the daughter of Charlaine and Oscar Anderson. Mother of four children: Sara (b. 1981), Whit (b. 1983), Katherine (b. 1984), and Ben (b. 1988).

Education: Graduated from Cushing High School, Cushing, Oklahoma in May 1977; received Bachelor of Science degree in Secondary Education with Art emphasis from Oklahoma State University, Stillwater, Oklahoma in May 1994. Completed the requirements for the Master of Science degree with a major in Counseling and Student Personnel with Community Counseling emphasis in May 1997.

Experience: Served on Arts and Humanities Council from 1988-1994; directed and taught Summer Art Camp for children 1994-1995; counselor for Personal Counseling Services at Oklahoma State University 1996-present.

Professional Memberships: Kappa Delta Phi, Student Affiliate of American Psychological Association, Student Affiliate of Oklahoma Counseling Association.