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Creativity

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“CREATIVITY”

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INTRODUCTION

Creativity, in its countless forms and expressions, is evident in every aspect of life. The title of one who is deemed to be *creative* is often reserved for those who wield paintbrushes, cameras, or a well-worn pair of ballet slippers. Yet possessing the quality or power of creating that results from original thought and expression is not limited to college art majors and eccentrics. Creativity plays a role in the life of every person around the globe and has been found to have numerous positive effects.

The concrete definition of creativity is “the state or quality of being creative; creative ability or process” (Webster, 1989). The more “creative” definition might follow along the lines of Peter Koestenbaum’s interpretation that “creativity is harnessing universality and making it flow through your eyes” (Cameron, 1992, p. 3). Throughout this review the term *creativity* will be used to encompass both concrete and abstract ideas and all of those acts which involve any part of the creative process and expression of thought, not just those belonging to so-called *artists*.

Beginning with the most basic element, creativity affects the individual on several closely related levels. From birth to passing, a person will travel through many phases of life in which they will explore who they are and what their purpose is. Through creativity, people develop stronger senses of self-esteem and self-confidence as well as the ability to express themselves in unique ways. With these kinds of personal skills they are able to continuously grow, develop, and become productive individuals. Creativity allows people to function within the parameters of their communities and greater societies and to have successful relationships with those around them. Creativity brings

meaning to life, gives hope to those in need of a brighter outlook, provides the knowledge that there are choices and opportunities available for living, and even assists in the inevitable process of aging.

Beyond the individual, society as a whole encompasses its own set of parameters in which we must learn to exist. From the classroom to the workplace to the one's wider social circle, creativity plays a role. For instance, the arts in schools have been a long-standing issue of debate. However, since creativity is not limited to arts programs, it can assist with the learning process as a whole by improving an array of skills as well as grades and test scores. In the workplace, the ability to be creative is a draw for potential employers and a skill that is useful in terms of competition in business and industry. In the larger communities in which people live, creativity and creative expression help them to better understand one another, to appreciate different cultures and points of view, and to deal with unforeseen occurrences such as trauma and disaster.

The most far-reaching sector of life involves the role of creativity in the world. Encompassed here are several areas including the global market and economy, problem solving, and historical patterns of creativity throughout time as it applies to survival, discovery, invention, innovation, and progress. Creativity has, and will continue to, enhance the world at large and allow every individual to move toward the future.

LITERATURE REVIEW

EFFECTS OF CREATIVITY ON THE INDIVIDUAL

Personal Exploration and Realization

“Creativity advances through works that bring about the artist’s continuing self-creation” (Franklin, 1999, p. 160)

As this quote by Garry Willis would suggest, creativity is rooted deep within each individual. For it to grow it must be examined, investigated, and explored. Only then will it be capable of realizing its full potential in human life. From that point, people can use creativity to nurture a sense of self-esteem, to boost self-confidence, and to assist each individual in realizing their own personal potential.

Individual experiences in creativity occur when a person utilizes symbols of a given area such as music, business, or even mathematics, to generate new ideas and to discover new ways of seeing things. These new ideas and patterns, which are often considered novelties, differ from any seen or known up until that moment. Although many creative individuals feel that luck and a fortunate combination of circumstances are to be credited with their success in creative fields, there are also those who believe that creativity is in the nature of all individuals, that it is an inherent tendency in all people. This natural tendency then spills out into other areas of personal exploration and self-improvement (Csikszentmihalyi, 1996).

Self-esteem, or “an objective respect for, or favorable impression of, oneself” (Webster, 1989) may be considered the foundation upon which one can build self-

confidence, self-actualization, and finally self-expression. Creativity boosts people's self-esteem by opening them up to the idea that anything they wish to accomplish is within their reach (Bayer). School arts programs are centers for creative learning and are one way in which the idea that anything is possible is encouraged and facilitated. This philosophy results in significant increases in self-esteem. In support of this idea, research conducted by the National Arts Education Research Center at New York University and McGill University both found that measures of self-esteem improved for students who expressed themselves creatively in music and art (Staff, 2002). It is clear that creativity enhances self-esteem by providing an outlet for expression and opportunities to excel.

In terms of creativity, self-confidence is here defined as one's "realistic and objective confidence in one's own judgment, ability, power" (Webster, 1989). According to Stanford psychologist Albert Bandura's research, the strength gained from accomplishing creative tasks, as well as practicing them, gives people a greater sense of confidence (Goleman, Kaufman, Ray, 1992). When we have faith in our natural instincts to create we gain confidence from expressing them and this confidence, in turn, makes its way into other areas of our lives. When an individual creates, they are diving into the depths of their inner beings and accessing personal thoughts and beliefs that also result in feelings of self-confidence (Morris, 1994). Without creativity it is less likely that one will experience the feelings of exhilaration that accompany acting at the best of one's abilities (Csikszentmihalyi, 1996). In school systems across the globe, creativity has also been recognized (monetarily and otherwise) as being incredibly important because when it is utilized in the form of art and music programs it is found to help "self-confidence and motivation" among students (Parkinson, 2004).

In 1975 the concept of *flow* emerged as the new way of considering creativity as it relates to individual actualization (Csikszentmihalyi, 1996). *Flow* occurs at the moment when a person is at their peak; when “skills and challenge match, then flow is most likely to emerge” (Goleman et al., 1992, 46). This individual and emotional connection to what a person does in life is of the utmost importance. To become fully realized, one must feel that connection to creative outlets. When a person is experiencing that flow, or that connection, neurological studies reveal that the brain exerts less energy and subjects show a smaller degree of anxiety and self-consciousness than a person who is not connected (Goleman et al., 1992). Thus, the self-actualization process of making desire into fact or action benefits from creativity by accessing this link.

Achieving a certain level of Self allows people to express themselves creatively and in many different ways. It is necessary, in many cases, for people to find ways to express themselves creatively so that they might represent the impact of their experiences on their life as well as assert parts of their personality. This type of self-expression is also beneficial because it allows people to non-verbally display various aspects of who they are (Csikszentmihalyi, 1996). Those who utilize creative outlets gain lifelong attentional skills, intelligence, and the ability for self-expression. Self-expression is not only a result of creativity but it is that creative expression that leads to greater self-discipline, diligence, and self-gratification (Staff, 2002). Without this manifestation, creativity itself has no outlet and so the symbiotic relationship is revealed.

Personal Growth and Development

“The creation of something new is not accomplished by the intellect but by the play instinct acting from inner necessity” ~C.G. Jung (Cameron, 1992, p. 19).

Personal exploration, in its many forms, inevitably leads to growth and development among individuals. A large part of this growth comes in the role of an individual within a given society. Professor Dean Stanton has found an interesting link between the social dimension of creativity and leadership. He says that “a successful leader is someone who can persuade people to change their ideas or behavior. A successful creator is one who gives other people a different way of looking at the world.” He goes on to explain that “creativity is not something that’s entirely within the individual- it involves reaching other people” (Goleman et al., 1992, p. 26). And just as people affect society, so are they affected by it. There is a powerful influence from the wider society that can often channel a person’s thinking in a new direction (Csikszentmihalyi, 1996). When we create we become involved in this broader domain and are able to contribute to the social context. Furthermore, creativity allows people to leave their mark on society. As society changes, it also allows people to find new ways to evolve with it. As a result of this relationship people can effectively adapt to a constantly changing environment (Dahlberg, 2004). Psychologist Rick Bayer has found that there are countless outlets for creativity in social settings, from building houses to organizing businesses to writing computer programs. In each case, creativity breeds excellence (Bayer).

Society as a whole provides many challenges that people must face on a daily basis. Among these are substance abuse and certain inevitable health challenges. The Texas Commission on Drug and Alcohol Abuse Report found that participation in band programs resulted in secondary students making up the lowest lifetime and current use of alcohol, tobacco, and illicit drugs. Creativity, in certain forms, also helps to cope with stress, stimulates the immune system, and improves overall health (Staff, 2002).

In terms of relationships, the use of collaborative creativity strengthens personal connections, deepens emotional intimacy, and can even result in personal growth for those involved (Cohen 2000). Csikszentmihalyi and his team conducted a survey in which the sample showed that most people in creative fields stayed married for 30, 40, or over 50 years (1996). Creativity enhances relational bonds because “when we are actively creating, we feel better about our relationships. We tend to be more generous to others. We have more to give because we have answered our urge to create” (Morris, 2004).

Personal Quality of Life

“Man is most uniquely human when he turns obstacles into opportunities” ~Eric Hoffer
(Cohen, 2000, p. 173).

In addition to personal exploration and personal growth, creativity also improves quality of life in general. Author Cynthia Morris has found that one of the benefits of creativity is that it enhances quality of life. “Call it a good mood. Call it a natural high. When we’ve done our creative work, we gain energy for our other responsibilities” (2004). Most people invest their lives in projects and ventures that are defined according to their own society and culture. Within this framework each individual develops a “life

theme” that embodies their unique vision while still allowing them to thrive.

Psychologist Erik Erikson found throughout the stages of life that each individual will strive to find meaning. To find this meaning, one must take full advantage of the creative process as they explore and develop (Csikszentmihalyi, 1996). By actively pursuing this process, people are recognizing and utilizing their innate sense of creativity and recognizing and utilizing the benefits of it. It is then that people begin to feel better about their pursuits because they are not simply wishing they could achieve certain goals, but actually doing so (Morris, 2004). After an individual exits this flow of creativity, they experience a sense of happiness and pride at their accomplishments (Csikszentmihalyi, 1996).

Not only are happiness and a sense of accomplishment results of creativity, but creativity also offers hope to people by allowing them to believe that not everything has to be as it is if they desire it to be different. Through creativity they can always imagine that there could be more or that there could be something different in store for their lives (Bayer). Certain forms of creativity can lead to a sense of hope and often provide more effective ways to deal with loss and grief (Dahlberg, 2005). In addition to providing hope to many situations, it also provides choices, options, and opportunities. Creativity is a way to fight against fixed ideas or biases that a person may have about trying new things or trying a different approach (Cohen, 2000). When people are given this greater sense of hope they are able to apply it to a variety of different situations because they are offered choices and a wider range of possibilities (Bayer). Creativity allows us to see these opportunities, generate possibilities, and imagine what could be (Dahlberg, 2004).

At any stage of life, individuals benefit from involving themselves in creative pursuits that take time, effort, and thought. In this way, those who are advancing in years remain productive even after “retiring” from conventional “work”. In the final stage of life people look for ways to nurture others, often using wise and creative approaches (Goleman et al., 1992). During this stage, there are four main benefits of creativity that assist with the aging process. The first of these benefits is how creativity strengthens morale. “Part of the nature of creativity is it’s engaging and sustaining quality- no matter what our physical condition, we feel better when we are able to... express ourselves with some creativity” (Cohen, 2000, p. 11). Creativity nurtures emotional resilience and helps people to cope with adversity. Another benefit is creativity’s effect on physical health as people age. “Increasing numbers of preliminary findings from psychoneuroimmunological studies – research that examines the interaction of our emotions, our brain function, and our immune system – suggest that a positive outlook and a sense of well-being have a beneficial effect on the functioning of our immune system and our overall health” (Cohen, 2000, p. 12). When people express themselves creatively, they foster emotions that improve their outlook on life and give them a sense of well being. The third benefit is how creativity enriches relationships. In terms of the aging process, specifically, creativity creates a link between younger and older adults as they share the ways in which they each express their individual creativity. Finally, creativity assists the aging process by acting as a legacy. “To be creative in later life provides an invaluable model of what is possible as we age, for our children, grandchildren, great grandchildren, and society” (Cohen, 2000, p. 14). As people grow

older they consider how productive and they were and will therefore benefit from pursuing all opportunities for creative expression.

EFFECTS OF CREATIVITY ON SOCIETY

The next level given to the positive effects of creativity on life is within one's society. From school to work to the greater community, creativity plays a role. As has already been established, people are constantly learning, growing, and developing. The role creativity plays in a person's successful development within society lies in several areas. It's role in education deals with the learning process, the improvement of various skills, and the improvement of grades and test scores. In the working world, creativity provides people with skills that attract employers and it gives a competitive edge to those who possess them in business. Finally, in one's community, creativity connects people, connects cultures, and help people to deal with trauma and disaster.

School

"Imagination is more important than knowledge" ~Albert Einstein (Cameron, 1992, p. 131)

When one thinks about learning, the focus often lies on days spent in a classroom setting. In an academic atmosphere, programs dedicated to the arts are where the benefits of creativity most often lie. Being provided an education in the arts enhances spatial intelligence in students. In 1997, the United States Department of Education found that the arts contribute "significantly to children's intellectual development" and prove "far superior to computer instruction in dramatically enhancing children's abstract reasoning

skills” (Staff, 2002). Creativity also “engages cognitive and kinesthetic experiences and promotes long-term learning” (Jankovitz, 2004). In the non-academic realm, what matters most in today’s society is the possession of relevant skills (Csikszentmihalyi, 1996). When one succeeds in a “creative cultural endeavor” such as writing a novel or winning the Nobel Prize, it elicits wealth, admiration, and power. However, in order to succeed one must find the joy in learning to sustain their creativity. A vital part of this learning process is using creativity as a step toward taking risks. When we take these creative risks, we are opening ourselves up to invaluable learning experiences (Goleman et al., 1992). Creativity also applies to the seven intelligences defined by Howard Gardner: Language, Math and Logic, Music, Spatial Reasoning, Movement, Interpersonal Intelligence, and Intrapersonal Intelligence. By participating in a variety of creative activities, people are developing these types of intelligences and reaping the benefits of each. For example, when a person writes a story or poem, sings a song, plays an instrument or applies their body in dance, sports, or craftsmanship, they are improving their language, music, and movement intelligence. By finding creative ways to experiment, observe, and strategize and by imagining how something looks and how it could look differently, people develop their math and logic and spatial reasoning intelligence. When people endeavor to interpret the motivations, personalities, strengths and weaknesses, feelings and interactions of others or attempt to understand their inner self and how they can adapt to their environments they are benefiting their interpersonal and intrapersonal intelligence. With the creative development of these intelligences, people learn who they are and what their role in society is (Goleman et al., 1992).

In the environment of education, creativity has been the focus of much debate for some time. When budgets call for cuts, the arts are often the first to be nominated for sacrifice. However, research does not support this approach. One school in Italy demonstrates the benefits received by students who are given a large scope of resources and opportunities for creative discovery and expression. By implementing a wide-ranging curriculum, the Reggio Emilia school has found that students respond in very positive ways. This focus on creativity produces students who are energetic, who love to learn, who are challenged, and who are allowed to be curious (Goleman et al., 1992). In the United States, creativity and the arts are officially given weight in our national education standards because their importance has been recognized. The No Child Left Behind Act of 2002 recognized the arts as one of the “core academic subjects” (Staff, 2002). One study carried out by University of California Los Angeles education professor James Catterall in which 25,000 students were surveyed revealed that students involved in the arts received higher standardized test scores and overall higher grades than students who were not (Jankovitz, 2004). One study discussed in Neurological Research found that, in a group of 237 second grade students involved, that after some piano keyboard training they scored 27% higher on proportional math and fraction tests than the students who had had no training (Staff, 2002). According to the National Center for Education Statistics, a 1988 study showed that students who participated in music programs received more A’s and B’s and a greater number of academic honors and awards than non-music students (Staff, 2002). Another article in Neurological Research outlines research that exhibited the positive effects of creativity in the form of piano lessons on spatial-temporal IQ scores (Staff, 2002). In the College-Bound Seniors

National Report of 2001 it was found that “students with coursework/experience in music performance and music appreciation scored higher on the SAT: students in music performance scored 57 points higher on the verbal and 41 points higher on the math, and students in music appreciation scored 63 points higher on verbal and 44 points higher on math, than did students with no arts participation (Staff, 2002). The United States Department of Education has found that another benefit of creativity is that “many colleges view participation in the arts... as a valuable experience that broadens students’ understanding and appreciation of the world around them (Staff, 2002). The College Board of New York has also identified the arts as one of six basic academic subjects that students are encouraged to study if they wish to be successful in college (Staff, 2002). In one study done by physician and biologist Lewis Thomas, it was found that the highest percentage of undergraduate majors accepted into medical school, at 66%, were music majors (Staff, 2002). Research clearly indicates that people benefit from creativity in academics by improving skills, grades, and test scores.

Work

“Creative work is play” ~Stephen Nachmanovitch (Cameron, 1992, p. 77)

For many, the next step after school is to enter the workforce. Creative professions are considered some of the oldest known: writers, musicians, artists, etc. Possessing creative skills gives people an edge in the business world, allows them the option of entering into careers that would not be considered ordinary, and they are often able to create their own jobs or open up new fields for others (Csikszentmihalyi, 1996). Even government agencies and private foundations like their executives to “have a reputation for creativity” (Csikszentmihalyi, 1996, p.204). The need for creativity is changing how

the workplace is organized and what people do. “When both managers and workers adopt a creative outlook, a subtle but powerful change begins to occur in the workplace” (Goleman et al., 1992, p. 106).

Creativity’s role in the workplace includes, but is not limited to, creation of new products, development of better services, and generation of new ideas and innovations in all fields. The nation’s top business executives agree that arts education programs better prepare workers for the 21st century (Staff, 2002). A 2006 survey of nearly 140 organizations by Hewitt Associates revealed that 60% of companies were struggling to find enough creative individuals to fill their need. They found that this growing need would result in companies placing a greater emphasis on nurturing the creativity of current employees (Berry, 2006). With new technology developing daily comes the need for creative people to use them and interpret them by utilizing creative thinking. Recent years show that this creative thinking has been responsible for giving many companies a competitive edge such as Michelin’s invention of “radial tires”, Citibank’s innovative ATM machines, and Sony’s revolutionary compact disc (Yapps Cohen, 2005). It is interesting to note that the collaborative creativity found to enhance relationships also comes into play when working with others.

Community

“The world of reality has its limits; the world of imagination is boundless” ~Jean-Jacques Rousseau (Cameron, 1992, p. 137)

Outside of school and work each individual is part of a community, whether it is geographical, relational, or interest-based. Creative influences are all around us and opportunities for creativity are endless. When one creates, they are connected to

everyone who works in the challenging and rewarding field of artistic creativity (Morris, 2004). In addition to the connection that is brought about by a sharing of creativity, there is also the connection that allows communities to bring about change when it is desired or necessary. Within this community are many different groups of people from many different backgrounds who must learn to work together in creative ways.

Creativity allows people to be exposed to other cultures and fosters a sense of empathy toward one another. Every human culture expresses itself creatively and this creative expression has the power to bring people from all backgrounds together. Artistic expression is one way for people to connect to themselves as well as to others by introducing one another to the richness and diversity of the human family. In 2003 Youthwise South Africa was formed so that educators could set up programs to help children and their teachers “tap into their well of creativity” and reach a level of “sustainability so they can break through the cycle of poverty” (Eberth, 2005). In return, the team is immersed South African culture and learns first-hand about the diseases and struggles they face on a daily basis. The founder of the Forces of Nature African-American dance troupe Abdel Salaam has found that “the arts have been one of the best ways to help [people] resolve their differences and bring various communities together” (Goleman et al., 1992, p. 173). According to Dean Simonton’s research at the University of California, “In the most creative periods [of history] there has been a tremendous infusion of diversity: new ideas and cross-cultural encounters. Then the society is confronted with putting all this diversity and complexity together in some harmonious way” which is where creativity comes into play (Goleman et al., p. 173). He further explains that, because of global communication, “there is more opportunity than ever for

cultures to learn from one another. Cultures weak in one or another area of creativity can learn from another society strong in that area, as Japan has successfully done in adopting Western technology” (174).

There are many obstacles faced by people all over the world and just as creativity can bring together different cultures, so it can also join communities that have experienced trauma or disaster. In 2004 the 9/11 Commission Report (created out of a 2001 disaster) found it “crucial to find a way of routinizing, even bureaucratizing, the exercise of imagination” in order to deal with negative events and be able to move forward (Dahlberg, 2004). The entire process of dealing with something devastating (such as a hurricane or earthquake) is a creative act (Dahlberg, 2005). The way for people to achieve post-traumatic growth is to cognitively engage in the process and form new goals, reassess the world around them, and imagine what could be possible in their lives. It is this vision that will reconnect them to the broader community, which is a necessary part of the process (Dahlberg, 2005). Another type of trauma that people deal with is loss. Loss, or the prospect of any kind of loss, often makes people re-evaluate their lives and creativity helps them to stay in the world and thrive despite adversity (Cohen, 2000).

EFFECTS OF CREATIVITY ON THE WORLD

“Imagination, play and creativity are all related and all help us to understand the world around us” (Bayer). Since the beginning of time creativity has been present in all corners of the world. From cavemen finding new ways to cook and hunt to artists of the Renaissance finding new ways to depict real life of canvas. Every movement forward

has been the result of creativity. After WWII researchers began to look for ways to stimulate creative behavior and to apply imagination to many different fields. By the 1950's J.P. Guilford, then president of the American Psychological Association, launched the "formal academic study of creativity" (Dahlberg, 2004). By being creative, people are adding something to the world. "There is no question that the human species could not survive, either now or in the years to come, if creativity were to run dry" (Csikszentmihalyi, 1996, p. 317). The world is dependent on creativity and the future is in the hands of those who create. Through creativity the economy, our ability to problem solve, and our ability to discover new things all benefit.

Global Market

"The function of the creative artist consists of making laws, not in following laws already made" ~Ferruccio Busoni (Cameron, 1992, p. 181)

According to the American Arts Alliance Fact Sheet of October 1996, "the arts create jobs, increase the local tax base, boost tourism, spur growth in related businesses (hotels, restaurants, printing, etc.) and improve the overall quality of life for our towns and cities. On a national level, nonprofit arts institutions and organizations generate an estimated \$37 billion in economic activity and return \$3.4 billion in federal income taxes to the United States Treasury each year" (Staff, 2002). It has already been established that employers look for creative individuals to recruit. To this effect, many companies are putting a good deal of money into training programs for this purpose. Sir Ken Robinson asserts that where once the arts were not seen as relevant to getting a job, now the arts teach many of the skills and values at the heart of the nation's growing "creative economy" (Morrison, 2005). Companies who adopt this approach experience, and are

responsible for, economic growth because their new knowledge, products, and services are meeting growing market needs (Yapps Cohen, 2005).

Discovery

“The greatest discovery of my generation is that a human being can change his life by changing his attitude of mind” ~William James (Cohen, 2000, p. 9)

In Csikszentmihalyi's research it was found that when asked what they feel best doing, the most common answer people gave was “designing or discovering something new” (1996, p. 108). Originality is one of the most important dimensions of creativity. In the world, as on an individual level, creativity invites exploration (Morris, 2004) and produces innovative ideas (Dahlberg, 2004). Since the 1500's the world has passed through major periods of invention, innovation, and progress when “free thinking” and creative individuals, groups (such as the Transcendentalists), and movements (such as The Enlightenment) stood at the forefront (Gardner, 1993). In the world of today, Gardner points to seven extraordinary, creative individuals as greatly impacting the modern intellectual revolution and proving that the role of creativity in life is one that is beneficial to the world as a whole. These seven creative thinkers include Sigmund Freud, Albert Einstein, Pablo Picasso, Igor Stravinsky, T.S. Eliot, Martha Graham, and Mahatma Gandhi. It is interesting to note that the achievements of each of these individuals also correspond to the each of the seven intelligences that benefit from creativity that have been previously discussed. These achievements range from inventing modern cubism (Picasso) to fathering the psychoanalytic movement (Freud), from inventing new forms of dance (Graham) to composing innovative ballets (Stravinsky), from writing revolutionary works (Eliot) to discovering the theory of relativity (Einstein) to creating

new methods of peaceful resistance (Gandhi) (Gardner, 1993). Each of these creators, along with thousands of others, have greatly impacted the way people live because of their discoveries, innovations, and inventions and helped the world to move forward. Of course, such progress is not obtained without a variety of obstacles.

Problem Solving

“A person who never made a mistake never tried anything new” ~Einstein (Goleman et al., 1992, p. 35).

When people find themselves in difficult situations it is helpful to be able to think outside of the box to find alternative options. In this way, the creative process allows people to make connections they might not have otherwise made and find answers to their problems. Several phases of this process include identifying the problem, considering the options (brainstorming), and letting ideas incubate (Bayer) or, in other words, letting the unconscious mind work (Goleman et al., 1992). The ability to determine important pieces of information from those that are irrelevant during this process is called “selective coding” and also benefits greatly from creative thinking when making these selections (Goleman et al., 1992, p. 35). Another advantage of creativity in problem solving is the ability to make comparisons and analogies so that one might put things into a fresh context or see them in a new way (Goleman 35). Creativity helps people to sense problems and name them before they are obvious, it allows people to see the nature of a problem and consider it from many perspectives, and in using creative problem solving, people are able to consider multiple scenarios before taking the risk of implementing one of them (Csikszentmihalyi, 1996). If it were not for creative problem

solving it is clear that the world would not be where it is today because, to borrow a well-known phrase “necessity is the mother of invention.”

CONCLUSION

As is now quite evident, creativity plays an important role in many aspects of life, has numerous positive effects, and is not simply a quality reserved for “artists”. For the individual, creativity benefits personal exploration and realization by boosting self-esteem, enhancing self-confidence, promoting self-actualization, and nurturing self-expression. In terms of personal growth and development, creativity aids individuals in developing positive relationships with others and within the greater society. On a broader scale, creativity gives meaning to life, provides hope for those in need, makes choices and opportunities available, and assists in the aging process.

Beyond the individual, creativity benefits society on several levels including education, business, and cultural interaction. In schools creativity aids the learning process, improves student’s skills, and raises grades and test scores. In the workplace it helps to provide people with skills that employers are looking for and gives an edge to those competing in the business world. And, finally, on the community level, creativity links people and cultures and provides a way to effectively deal with trauma and disaster.

The last level in which creativity plays a positive role is in the world as a whole. It has been found to improve the economy and the global market as well as aid the problem solving process. Creativity also plays a major role in the process of discovery throughout

all parts of the world and benefits invention, innovation, and progress. Based on historical evidence, creativity is necessary for the development of the human family.

To say that creativity merely “plays a role” in life seems to lack the degree of gravity that is deserved. Creativity, in all of its forms and manifestations, is evident in every part of life. From the stop lights that control traffic, to the laptop computer used to write term papers, to the recipe used to create a favorite dessert, to the painting hanging in the hall, creativity is everywhere. It is undeniable.

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