What are the benefits of dance in relation to developing creative potential for the individual?

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What are the benefits of dance in relation to developing creative potential for the individual?

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10.11.06

Bachelor of Arts (Dance) Honours
USE OF THESIS

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Abstract

This thesis proposes to discuss the benefits of creativity for the individual and highlight the increasing importance of creativity in today’s society. The thesis discusses how creativity can be identified, nurtured and developed and what factors effect the development of creative potential. Creativity plays a major role in dance as an art form. This thesis draws attention to the fact that dance teaches many of the key skills needed to develop creative potential and how dance can be utilised as an avenue to enhancing an individual’s creative ability. This thesis will outline the parallels between learning dance and developing creative potential.
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Introduction

Creative potential is the ability to be creative. There are numerous definitions of creativity all sharing a common focus in that creativity involves the creation of a novel or original product which is achieved through a ‘creative process’. Creative potential, on the other hand, does not have to result in a creation or product, but is the prospect that an individual has the ability to create something original and unique. It implies that the individual possesses the knowledge to use their creativity as well as other skills in a creative process which may or may not result in a product.

In today’s corporate world, there is a high demand for creative individuals and for creativity in the work place (Baer & Kaufman, 2005, p.xiv). Innovation and creativity are seen as highly sought after qualities. Creative people have the ability to problem solve more efficiently, work collaboratively and come up with original and innovative ideas, therefore giving companies an extra edge in a competitive market (Baer & Kaufman, 2005, p.xiv). Individually, creativity is a characteristic we use in order to adapt and prosper in a constantly changing environment (VanGundy, 1982, p.5). Creativity is so greatly sought after that recent in-depth research has been conducted on the psychological, theoretical and practical aspects of creativeness (Baer & Kaufman, 2005, p.xiv).

Creativity plays a major role in dance as an art form. As a dancer, you are constantly using creative measures to develop innovative concepts through movement. Choreography involves creative problem solving in order to create a desired aesthetic or intention. Dance requires that you are creative not only with the body, but with the environment that surrounds the body. An experienced dancer has the ability to make creative choices with movement in order to perform movement with exacting quality (Baer & Kaufman, 2005, p.90). Creativity in dance not only associates itself with physical choices but with thought processes. Creativity generates an environment for the development of cognitive thinking, but also an environment where the mind and body merge. Dance not only acts as a medium for expressing creativity, it enables a person to develop the skills of creative thinking.
As the demand for creativity in modern society amplifies, the art of dance may hold a significant place in the development of creativity as a prominent characteristic in an individual. To determine how dance can be utilized in this way, one must identify if the creative ability of dance artists is a general ability that can be mastered, or if the creative knowledge is specific to the domain of the dancer (Baer & Kaufman, 2005, p.8). Secondly, we need to identify the creative structures or tools mastered in dance that can then become beneficial to application across many fields of endeavor. It would be ignorant to think that dance is the only way or the best way to develop creativity, and this is not what is being suggested. However, because a dancer requires a large amount of creative skill to meet the requirements of the profession, it expected that dance training would have some degree of impact on the individual’s creative development therefore increasing creative potential. The aim of this thesis is to establish whether dance has any benefits in nurturing creativity.
Creativity: a demand for creative thinkers

There are numerous life advantages for the creative individual and people with creative skills (Pink, 2005, p1). While creativity is a valuable trait of increasing importance today, creativity has been common interest for centuries.

Although interest in creative talent among ordinary adults and children is a recent phenomenon, the genius or the great man has interested historians, biographers and philosophers for centuries. He was regarded by many as qualitatively different from ordinary men, and as set apart by his creative powers which arose through inspiration from some divine source outside himself (Gilchrist, 1972 p2).

While our ability to be creative as humans is not a new evolutionary trait, the necessity for creativity is becoming more and more important. The demand for creative thinkers now permeates our work force, education and homes. This new requirement for creative thinking has evolved as competition rises due to the demand for new and different approaches to products and services. Particularly on a corporate level, large amounts of money depend on a product or service being new, inventive, original and unique. If an individual can apply unique and innovate ideas to their work not only are they more likely to find employment, they are also at less risk of losing their job to corporate out-sourcing.

A broad outlook on today’s western society makes it evident that many office working corporate jobs are being out sourced to poorer nations. Alternatively, people are being laid off work because machines can do the work faster for less cost. There is mass production and abundance of goods and services. The individual who has the ability to invent and produce original ideas is now required in companies and the corporate world. They are the ones who will be able to secure themselves a job for the future (Pink, 2005, p2).

Many big companies in Australia have started to out source jobs to overseas companies in order to cut costs. Late October 2006, Qantas, Australia’s national airline, outsourced its IT work to an Indian company, sacrificing three hundred and forty Australian jobs. These Australian workers were fully qualified to work in the IT jobs for Qantas, yet the company could get overseas staff, qualified with the same abilities, to do the work for a much
cheaper cost. This outsourcing was a cost cutting attempt to save money and cut labour costs of the company (Long, 2006 ABC).

As the economist puts it, the sorts of entry level tasks that “would once have been foisted on ambitious but inexperienced young recruits, working long hours to earn their spurs in Wall Street or the City of London, are, thanks to the miracle of fibre-optic cable, foisted on their lower paid Indian counterparts” (Pink 2005, p54)

This outsourcing of jobs to equally qualified people for less money puts white collar western jobs at risk. Therefore, when people go for a job with a company, they need to be able to offer a company multiple skills and creative abilities across a range of areas in order to make a valuable contribution. They need to be able to offer more skills than their overseas competitors.

At the same time, because of abundance, businesses are realizing that the only way to differentiate their goods and services in today’s overstocked marketplace is to make their offerings physically beautiful and emotionally compelling. Thus the high-concept abilities of an artist are often more valuable than the easily replicated L-Directed skills of an entry-level business graduate (Pink 2005, p55).

The requirement for creativity has already started to influence American society. Corporate companies now send their recruiters to the top arts schools in search of creative talent. A Master of Fine Arts is now one of the most sort after credentials in the USA (Pink, 2005, p54).

Corporate recruiters have begun visiting the top arts grad schools – places such as the Rhodes Island School of Design, the School of the Art Institute of Chicago, Michigan’s Cranbrook Academy of Art – in search of talent. And this broadened approach has often come at the expense of more traditional business graduates (Pink 2005, p54).

The need for developing creativity is increasing in western society. People want to foster their creative abilities and skills in order to develop their creative potential. How people can accomplish this is a question for which the arts and dance in particular may have an answer. Firstly we must address what creativity is and how it can be developed.
Developing Creativity

Creativity can be defined as “… The ability to produce work that is novel (i.e., original, unexpected), high in quality and appropriate (i.e., useful, meet task constraints)…” (Kaufman and Baer in Sternberg, Grigorenko and Singer, 2004, p4). It can also be described as a process that leads to creative realization and development of creative skills regardless of the outcome of productivity. “…Creativity is the interplay between ability and process by which an individual or group produces an outcome or product that is both novel and useful as defined within some social context…”(Plucker and Beghetto in Grigorenko, Sternberg and Singer, 2004, p156).

In order to develop creativity the individual must be educated in or exposed to factors that cultivate creativity. For example, creative process, creative environment, development of original ideas, and creative thinking. All these factors effecting creativity can be nurtured in an artistic environment.

Margaret Gilchrist is a psychologist who has conducted extensive research on the psychology of creativity. She acknowledges that creativity can be nurtured and cultivated in an artistic environment.

Guilford has pointed out ‘to a marked degree’ that activities such as painting, inventing, writing, planning, composing or designing are generally regarded as creative. In addition, people in certain professions- for example, actors, musicians or artists- are regarded as more creative than the average. Their activities manifest creative potential, and result in creative products, whether tangible and intangible (Gilchrist, 1972 p.11).

Gilchrist observes that ...activities at an early age indicate interest in and a drive towards creative achievements that may result in such accomplishments in the future... (Gilchrist, 1972, p25). Gilchrist gives good indication throughout the text that creativity can be nurtured and discovered through creative activities. While Gilchrist focuses mainly on the psychology of creativity and the ability of the creative individual, she also recognizes slight differences in creative skills in areas of the arts and of science. She does however,
acknowledge that they have many similarities. The idea of creativity being specific to one
learning area or type of intelligence is highly debated and this theory is referred to as the
domain specific theory. There has been extended research into domain specific creativity
and across domain creativity also known as general creativity. The information from this
research suggests that the traits and attributes that lead to creativity in one domain may not
be the same traits or attributes needed to be creative in another domain (Sternberg,
Grigorenko, Singer, 2004, p.ix)

In order to determine whether or not creativity or creative skills can be developed to serve a
general purpose, we must firstly establish the degree to which creativity is general.

One of the most central issues addressed by the chapter in this volume is the degree
to which creativity is general across domains or specific to a domain. This issue has
been the object of considerable research and speculation for decades – and the
answer seems to be unequivocal both – creativity is general and specific. The
question then becomes: Under what conditions do we find generality, and under
what conditions do we find specificity? (Baer & Kaufman, 2005, p.238)

The above quotation highlights an important question related to dance. Is the creative
knowledge that is learnt and developed in dance general or specific? If this knowledge can
be used in a general manner, how then is it different and more beneficial from using
another art form or domain to develop creative knowledge?

Dance and the arts rely heavily on creativity (Baer & Kaufman, 2005, p.xiv). As a dancer
you are required to make creative decisions with your body in relation to time, space and
dynamics. The art of choreography encourages creative thinking, promoting problem
solving abilities and cognitive thinking (Baer & Kaufman, 2005, p.97). Baer and
Kaufman’s studies, affirms these statements about dance (Baer & Kaufman, 2005, p.81-
102). However, they additionally inquire whether the creativity and the creative knowledge
associated with dance is specific to the domain of dance, or if it can be transposed to the
general spectrum.
Creativity also has a much wider purview than it once did; no longer confined to just a few areas in the arts and sciences, creativity is now considered important in performances and products of all kinds. Indeed, interest in creativity has never been greater, with a special division within the American Psychological Association devoted to the empirical study of the arts, four different journals centered around the study of creativity, and several major annual awards given out to outstanding creativity researchers. (Baer & Kaufman, 2005, p.xiv)

Baer & Kaufman not only deals with dance as a creative domain but also addresses other art forms such as acting, visual arts and writing. They then continue to look at creativity in specific areas such as psychology, engineering, computer science, management and teaching. Interestingly, the research found that, domains not associated with the arts, highlight the benefits and progress that creativity generates in that specific domain. In turn, it makes evident that these domains are not strictly dependant on creativity, where as creativity is a vital component across the arts domains. However, each domain has creative aspects unique to themselves even amongst the arts.

More and more work has focused on the domain specific nature of creative thinking and creative performance. Even in domains that seem closely related, such as writing poetry and writing short stories (Baer, 1993, 1994a, 1994b, 1996: Kaufman, 2001) or creating different kinds of art work (Runco, 1989), it appears that the underlying processes may be quite different. The important skills, attitudes, ways of working, guiding metaphors, and standards for assessing creative performance vary widely from domain to domain (Baer & Kaufman, 2005, p.xiv).

Developing creativity, as stated previously, also relies on educating individuals in the creative process, creative characteristics and exposing the individual to creative stimulus in the environment. To determine if the creative skills learnt in dance are transferable to other skill areas, we must identify the traits and abilities of creativity and locate them within the dance domain.

The research project “Unspoken Knowledges” conducted by Shirley McKechnie, Robin Grove and Kate Stevens in 1999 identifies and explores the concept of creativity as a form of knowledge. It draws attention to the intellectual rigour of a choreographic process and the seamless connection between the body and mind.
There is a wealth of current writing in the field of consciousness, mind, brain and body that moves away from answers that suggest we are dealing purely with bodies. A dynamical approach to cognition, (as opposed to a computational approach) conceives of the mind as one with the body, not so much as an interaction between symbolic representations, but as a system in which perception, action, and cognition are always dynamically coupled and embedded in the world (McKechnie, 1999).

The research was conducted in Australia by leaders in the dance community who had the understanding and knowledge base to research and assess their findings, resulting in progress and development in the dance community. This research could be seen to validate the connection between the creativity and physicality of dance, and intellectual stimulation and knowledge.

The research addresses problems which beset the dance industry at its most creative level - the methodology and practice of the craft of choreography. It is applied research, in that it is original work undertaken primarily to acquire new knowledge with a specific application in view. The research proposed is not only excitingly original; it is a shining indication of Australia's leadership in dance and the intellectual investigation of its art and practice (McKechnie, 2001).

Senior researcher of this project, Shirley McKechnie, wrote a paper in the journal *Choreography and Dance*, Vol. 6 addressing further the connection between the mind and body, emphasising the intellectual complexity of the creation of dance.

The network of dynamic and spatial relationships which characterises a fine choreographic creation is evidence of complex thinking in four dimensions. The subtle interactions between mind and motion necessary for the creation of such complex structures are the subject of this paper. But questions about form and structure are not only asked by artists. My students and other interested people seek answers to questions which have only been formulated in the latter part of our troubled twentieth century by writers and thinkers from a range of disciplines. The words brain and mind have often been used interchangeably in the past. New knowledge from evolutionary theory and the neurosciences now allows us to see the brain as a biological given and the mind as a cultural construct. Contemporary thinkers in many disciplines ranging across philosophy, the sciences and the arts are beginning to find that the post-modern fixation on context has a venerable history.

The research project Unspoken Knowledges at the Victorian College of the Arts in Melbourne has time to trace a complex choreographic journey and to ask questions about the way artists view the world and the relationship between the nature of
choreographic thought and its relationship to more universal themes (McKechnie, 2001, p.139-154).

While this research draws attention to the intellectual stimulus of dance at a complex level, it also emphasises the creative way dance as an art form encourages people to think. This can then lead to self expression through a creative and positive medium. On an individual level, this allows a person different avenues through which to define their point of view and values.

However, while this project highlights the extent to which intellectual creative knowledge can be achieved in the dance industry, it draws attention to the fact that this knowledge is attained at an elite level of practice in the dance industry. If we relate this back to an average person wanting to develop their creative knowledge and abilities, we find a problematic situation. Even though the creative knowledge highlighted in this project may be general, rather than specific, it still is unattainable for a person not trained in the discipline of dance or choreography. This leads us to question the importance of dance in education and the age at which creativity can be nurtured and developed.

A dance experience at a young age, especially where creative dance is involved, gives the individual a chance to express themself individually in a physical nature. Through this discovery and expression they learn about their bodies, minds, imagination and ideas (Joyce 1980, p.5). But, most importantly, creative dance teaches the individual self awareness, self confidence and self acceptance (Joyce 1980, p.5)

Experiences in dance are fundamental and accessible to all children because a child’s body and its expression are one. It is the capacity of the creative dance to involve all children that results in some practitioners viewing creative dance as something diametrically opposed to dance as a performance art (Bergmann 1992, p.105).

While it would be unrealistic to assume that people would run out and find the nearest dance class in order to become more creative, evidence shows that people who have previously been involved in the arts have more creative abilities. The following quotation is
based on research by J. L. Holland on the success of high school and college graduates who had previously participated in arts activities.

Taking part in creative activities in high school was the best predictor of continuing creative activity in college and D. W. MacKinnon reported that creative activities during college years and earlier were characteristics of highly creative architects identified on the basis of their adult achievements (Gilchrist, 1972, p27).

It is evident from this that dance, notably creative dance, particularly if it is learnt at a young age, will have an impact on developing creative potential. This is also apparent when we examine the characteristics of developing creative potential.
Identifying and developing creative traits and creative process and environmental factors which influence creative potential.

Process

There are three areas that contribute significantly to creative development. The first is creative process. While the definition of creativity states that there has to be production of a novel or original idea, there also has to be a process that takes place in order to produce a creative outcome. Creativity, domain specific or general, always involves a certain level of process.

Regardless of ability, there is a general method or process by which an individual enacts his or her creative ability. This is not to say that the process a highly skilled individual engages in is identical to that of an unskilled individual. Rather, a process or procedure serves as a vehicle for enacting individual ability. ... (Plucker and Beghetto in Grigorenko, Sternberg and Singer, 2004, p156).

Relying purely on the individual's ability is not enough to generate creativity; ability along with process enhances creative production. A very basic example of combining ability and process producing creativity is a designer brainstorming for a new product. This individual has the design knowledge and understanding to create a new product, but uses a creative process (i.e. brainstorming), in order to come up with a product that is novel or original. The process of brainstorming activates the mind to think creatively.

Process is one of the key factors in developing creativity, it acts as an avenue to express creativity enhancing each individual's creative skills. Process is one skill that can be developed by the individual who wants to gain greater creative potential.

The process leading to the creation of a product can be divided into four stages, preparation, incubation, illumination and verification. Preparation - involving thought about the task or problem at hand, sourcing information and exploration of ideas. Incubation - letting the ideas subconsciously evolve and challenging habitual process. Illumination - a new inspiration or unique insight into an idea or solution. Verification, questioning the outcome with logic (Gilchrist, 1972, p6).
The emphasis of creative process in developing creative potential opens up the opportunity for learning dance, because dance highly values process. If we evaluate dance in this context, we discover that process is a constant factor in the development and learning of dance. The process of making and learning dance, otherwise known as choreography, involves creative process at a basic level and at a professional level. This makes it beneficial in developing creative potential at low and high levels of dance.

Creative dance is one avenue of dance that has been developed to nurture the creative process allowing the individual greater access to their creative abilities. Creative dance is dance in a simple form used as therapy or a form of creative education to help develop positive self concepts and self-acceptance (Bergmann 1992, p.104). This dance form enables a person to express individual ideas and concepts, encouraging ideas that are novel and allowing thought processes to flow in a stimulating environment; thus developing creative traits.

It is the subjective nature of dance that has resulted in an emphasis on the process rather than the product of dance. Alma Hawkins notes that “as an expressive activity, dance enables the individual to relate to his environment in a highly personal and unique fashion”. It is an emphasis on the personal and unique nature of creative dance that has led to many practitioners to de-emphasise the creation of a product meant to be shared with an audience. Joyce suggests that “in creative dance the statement comes before the technique. The individual is the first source; in teaching, you seek to reach the part of the individual that is the composer rather than a player, an originator rather than an interpreter, a creator rather than a performer” (Bergmann 1992, p.104).

Further research into using creative dance as a medium in developing creativity, reveals that dance has a greater impact on the individual because it involves the “whole being” in the creative process. It also suggests why dance could be chosen over other art forms and sciences to discover creative ability (MacDonald Colla J. 1993 p172). Dance requires the participation of both the physical and the mental enhancing the learning experiences by involving all the senses of the body, becoming totally committed to the creative experience (MacDonald Colla J. 1993 p172). So what makes the dance process or choreography different to the process of other creativity inspiring forms like painting or designing? It is due to the fact that the mental creative process becomes physically identifiable and
therefore can be better understood and recognized on an internal and external level. (Hawkins, 1964, p18).

Traits

If we look at a person who we term “creative” and ask ourselves what makes this person creative, we must take into consideration the characteristic traits that define a creative person. If we assume that all people are creative to certain varying degrees (Gilchrist, 1972, p 5), then people with obvious creative capacity should possess similar attributes and qualities.

The following traits and abilities are specific to the creative individual based on psychologist J.P. Guilford’s theory: sensitivity to problems: ability to formulate the initial problem which requires a solution; fluency of ideas: the ability to produce multiple ideas in relation to the problem; flexibility of thinking: exploring possible solutions in innovative ways; novelty: originality of ideas; complexity of thinking: analysis and synthesis of ideas; evaluation of ideas: the ability to investigate certain ideas and disregard others; redefinition of the purpose of existing objects and techniques (Gilchrist, 1972 p5). Guilford suggests that: “…Individuals could differ in all these abilities and the sum total of these differences could account for differences in creative talent…” (Guilford inGilchrist, 1972 p2).

Creativity in this sense is present in almost everyone, and many people have the potential for a high level of creative achievement. Whether or not the potential is realized depends on the direction of their interests, on training and opportunity, on chance and perhaps also on the possession of special talents (Gilchrist, 1972. p.10).

There has been extensive study of creative traits by the Institute for Personality Assessment and Research (IPAR) at the University of California. A study of architects demonstrated that similar traits existed in more creative individuals. The architects were separated into three groups, group one being considered the most creative, group two, less creative but showed potential and the third group was made up of volunteer architects. After a series of
tests it was detected that the highly creative architects exhibited the following characteristics (Gilchrist, 1972, p64).

They displayed less inhibition of impulse, had more unusual and unconventional views, were less constrained by conventional expectations, and were less concerned with making the right impression on others (Gilchrist, 1972, p64).

The above character traits can all be related back to development of the individual and the idea of exploring one’s self. These creative traits are developed as the individual becomes confident in their beliefs and values and confident in their ideas and abilities. Exploration of one’s self is a key factor in creative dance; the learning process relies heavily on the self discovery of the individual. It encourages “…greater understanding and acceptance of self. Ability to work with self-confidence and self-direction. Understanding of others and skill in working with them…” (Hawkins 1974, p.122). Creative dance also develops self expression, aesthetic choices, communication through body language and value of individual choices.

Social and environmental factors

Creative process and creative traits both play a significant role in the development of creative potential. There is a third, equally important, factor that contributes to creative development and that is the environment in which creativity is nurtured. This factor is highly influential in creative learning as it effects the individual’s self perception, morals and ethics, self esteem and the valuing of others.

Peers can have a dramatic impact on creative response in an individual. Pressure from peers can undermine creative achievement and creative ideas as the individual feels the need to conform to the majority point of view. This peer pressure is more evident in child and adolescent learning. Studies by Amabile suggest that:

There is some suggestive evidence that peer pressure in class rooms can undermine creativity…evidence of increased tendencies for children to conform with their peers at about the fourth grade. This increased conformability pressure would be
expected to reduce children’s willingness to take risks in exploring new paths to solutions (Amabile, 1983, p160).

Although the above quotation relates to the development of children, the same pressure to conform is relevant for every individual. However a mature and self confident approach would be expected more from an adult in this situation.

The facilitator or motivator in creative learning also has an effect on the way they mentor their students. Research on how the attitudes and teaching methods of instructors influence creativity in students has show that teachers who are concerned with the autonomy of their students, have generated more creative pupils (Amabile, 1983, p160).

In that study, teachers’ beliefs in the importance of student autonomy correlated significantly and positively with their students’ preference for challenge, curiosity, and desire for independent mastery (Amabile, 1983, p160).

The focus on the individual becomes an important part of developing creativity and both teacher and peers plan an important role in nurturing or inhibiting self confidence and discovery. A study by Chambers (1973) investigated the teaching styles at university level, deciphering what teaching styles inhibit creativity and what styles facilitate creativity. A list was compiled ten factors that most facilitated creativity, they were:

1. Treated students as individuals
2. Encouraged students to be independent
3. Served as a model
4. Spent considerable amount of time with students out of class
5. Indicated that excellence was expected and could be achieved
6. Enthusiastic
7. Accepted students as equals
8. Directly awarded students creative behavior or work
9. Interesting, dynamic lecturer
10. Excellent on one-to-one basis (Chambers in Amabile 1983, p164)

Dance emphasises individual learning, whether it is creative dance, which relies on self-discovery and self-motivation, or dance that is taught with a more physically technical approach, such as ballet where the individual works on developing skills for ones self. An example of this would be a student learning to perform a pirouette. The student can only rely on the knowledge they have gained through their teacher, watching others and the
information they have learnt through self discovery in order to perform the task. No one else can do it for them. Therefore the focus from the teacher has to be on an individual basis. Although the ballet dance form encourages individual learning it also encourages conformity. The individual must discover their own pathway to performing a pirouette but the pirouette can only be performed in one correct way. This is where creative dance and other dance forms that encourage self expression become more beneficial in developing creative potential.

The ten attributes further highlight that individual learning is extremely important in facilitating creativity. Not only are these traits common to educators of creativity, but they are also evident in family relationships as well. A study of children with varying creative abilities researched the impact of parents on creative development. The finding of this study found that children who came from a home where there were less boundaries and children had more opportunities to make their own individual decisions, produced a higher level of creativity (Amabile 1983, p168).

Considerable evidence suggests that families most likely to foster creativity in children are characterized by a low level of authoritarianism and restrictiveness, an encouragement of independence, and a somewhat cool interpersonal distance between parents and children (Miller and Gerard, 1979 in Amabile, 1983, p168).

This evidence further supports the idea that fostering the individual’s self confidence and sense of self worth can develop creativity.

The environment where a person learns to develop their creative skills also plays a part in stimulating the creative mind. Visual and physical stimuli allow the individual a greater number of options in their creative responses and the environment’s stimulus tends to be evident in the product of that creativity (Amabile, 1983, p183).

For example a study of children placed in an environmentally cue-rich room produced higher creative results than the children that had been deprived of certain senses (darkness and silence). The result was that children in a room with more stimuli responded more creatively than the children with fewer stimuli (Amabile, 1983, p 183).
Children use environmental scanning in answering questions to creativity tests. When asked to think of unusual uses for an object, for instance, the more successful subjects will often scan the room they are in for clues to responses. Besides providing specific answers to test items, cue rich environments might simply provide a level of cognitive stimulation necessary for subjects to engage their domain-relevant skills (Fuerst and Zubek in Amabile, 1983, p183). It is also important that the individual feels comfortable enough in the learning environment to be able to explore. This involves attitudes of acceptance and understanding as well as limited evaluation of the result or process.

Creative dance requires a response to the environment to which the participant is subjected. This enables them to express individual and original ideas in regards to their situation (MacDonald Colla J. 1993 p172). It offers the individual the opportunity to create and express in an environment that is free from judgment and is understanding and stimulating. Movement and physicality is explored with simple direction from an instructor who facilitates the process by introducing different stimuli such as emotions, aesthetic response, visual cues and physical objects. Exploration of these stimuli involves thinking, imagining, feeling and responding.

The individual’s development of creative potential has many varying factors, environment, process and traits being the most important three. Providing that these three variables are nurtured, every individual should be able to develop their creative potential. The only varying factor that will then impact on creative growth is genetics. Do genetics influence creative ability? Is creativity instinctual or is it a skill that is learnt?
Do we all have creative ability?

There has been extensive research in measuring creative ability or potential in an individual. These tests measure creative response, creative personalities and levels of productivity. However, an area which is greyer in the study of creativity is whether or not creativity is already programmed into a person’s genetic make up, or whether it is a skill that is learnt. Does a creative person have a predetermined level of creative ability or can creativity keep developing indefinitely?

There are a few different view points on this question but, regardless of where creativity originates in the individual, many researchers believe that, to some extent, creative potential can be developed. The differences lie in what aspects of creativity can be developed.

Alma Hawkins, dance researcher and lecturer at the University of California, stipulates that every person has the facility to be creative; creativity comes naturally to the human being. The creative impulse comes from an innate desire for discovery and sense of inquisitiveness driving the individual to learn and discover the world on a personal, social and environmental level (Hawkins, 1964, p6).

The impulse toward creativity and aesthetic experiences is fed by the inner spirit that urges man to move forward and upward...The explanation of man’s creativeness, according to authorities, is to be found in the understanding of human nature. Apparently it is as much a part of nature to seek aesthetic experiences, to be curious, to discover, to imagine, and to stretch for new understandings as it is to perpetuate the basic biologic functions and the cultural heritage of man (Hawkins, 1964, p6).

*Training Your Creative Mind* is a personal programme book created by Arthur VanGrundy. Throughout the book there are a series of exercises that encourage creative problem solving and the development of right brain thinking. The text encourages the creative skills that would be of value to many business and corporate related jobs. He believes that everyone has the ability to be highly creative beings, and it is just a matter of developing our capabilities.
100 per cent of people in the general population are creative. The only way most of us differ from those whom we consider to be creative geniuses is that these latter individuals somehow have managed to grasp the meaning and significance of their creativeness. And they have been able to direct this creativeness into channels that bring recognition to their creative achievements (VanGrundy, 1982 p2).

VanGrundy is particularly concerned with the right brain development in order to problem solve more efficiently and effectively. The right brain functions are associated with creative qualities for example, problem sensitivity, flexibility, fluency and originality (VanGrundy, 1982. p11). VanGrundy’s creative thinking exercise may have some beneficial effect on creativity in the individual, however, they are theoretically based. If we compare this to the creative abilities associated with dance, the main difference would be that dance is practical in its creative intellectual stimulus and the other is theory based.

Researcher and author Daniel Pink’s theory claims that creative attributes and qualities are also produced by the right side of the brain. Development of right brain thinking involves six aptitudes, they are the following:

Design – being able to create a product that is not only functional but is aesthetically and emotionally engaging.
Story – putting facts into context in order to understand thoroughly.
Empathy – forge relationships and understand other individuals
Symphony – synthesis, being able see the big picture and crossing boundaries.
Play – finding moments for laughter, light heartedness, games and humour.
Meaning – Purpose, transcendence and spiritual fulfilment.

The theory suggests that the individual will function with greater creative capacity, if these six skill areas are developed. If we assume for a moment that these aptitudes do develop creativity, and compare them to the aptitudes of dance we find that the skills correlate.

Design - The aptitude of design in dance is a skill that starts developing even at a very basic level. Choreography can be as simple as the individual exploring and experimenting
with different movement dynamics then making aesthetic choices based on what they think is engaging for themselves and others (Hawkins, 1964, p 106). The student becomes aware of aesthetic choices through dance, both visually and physically. For example, learning what types of movement make them feel graceful and calm or what movement makes them feel angry and powerful. By observing others and the environment around them, individuals can establish what pleases and what displeases them, thus building an aesthetic vocabulary. Most importantly learning dance gives the student awareness of aesthetic choices. For the more experienced dancer, choreography, the design of dance, becomes an area for developing aesthetic sensitivity. Through this sensitivity the dancer can communicate with his or her movement causing an emotive response from the viewer.

It is the dancer’s whole function to lead us into imitating his action with our faculty of inner mimicry in order that we may experience his feeling. Facts he could tell us, but feelings he could not convey in any other way than by arousing them in us through sympathetic response (Martin in Hawkins 1964, p35).

This brings us to the next aptitude, Story. This is a skill a dancer learns, communicating through the body, telling a story or conveying a meaning. Dancers learn to become incredibly sensitive to the meaning behind the movement. They can read intricate body language as well as master it; dance is an excellent medium for developing non-verbal communication.

This kind of perceiving is made possible by man’s innate capacity for inner mimicry and empathy with movement and movement tensions. This kinaesthetic sense, made possible by an intricate network of nerves and muscles, enables the human being to “feel into” and perceive the movement gestured of the fellow man. This sensitive mechanism, which allows man to empathise with everyday gestures, also allows him to perceive dance as an art experience (Hawkins, 1964 p4).

A dancer also develops the skills of sequencing movement together in order to create meaning through the movement. A story can be told through the movement when the movement is manipulated through sequencing. As choreographic skills develop the movement becomes highly structured and sequencing of movement is refined. This allows
movement subtleties to enhance the story aspect of the movement and communicate more effectively with the audience.

The aptitude of empathy or the skill of understanding other individuals is another benefit in developing communication skills. By observing how others move, the dancer learns to read non verbal communication, they also observe how others communicate with their bodies and in relation to one another. There is also social interaction that is involved with the consultation, process and explaining of creative dance. Thoughts, ideas and suggestions are shared in within a group atmosphere. In choreography to there is a necessity for good communication skills. Choreographic process relies heavily on the communication between the choreographer and the dancer both verbally and physically.

Symphony - the idea of being able to see the greater picture or vision. There are many ways in which this skill is utilized in dance. Conceptualisation of an art work means the dancer has to arrange different elements such as music, movement, costume, spacing and timing into an art work that conveys a message and connects with the audience.

The illusion, which constitutes a work of art, is not a mere arrangement of given materials in an aesthetically pleasing pattern; it is what results from the arrangement, and is literally something the artist makes, not something he finds (Hawkins 1964 p 85).

The dancer/performer also has to make decisions while performing that will have an effect on the overall work. Their role as performer is to understand the concept of the work and create this on stage through the movement vocabulary.

So far we have used dance in the context of creative dance or dance in a learning environment. However, there is one type of dance that produces all the traits that are related to the aptitude of Play, this is social dancing. Social dancing takes place in many occasions in our society, parties, weddings, celebrations and leisure time. In fact dancing socially is associated with finding moments for laughter, light heartedness, games and humour. Many childhood games involve dancing or moving tactfully, musical statues, musical bobs, tag,
what’s the time Mr Wolf? etc. While children are playing with movement they are also subconsciously associating movement with fun. Pink’s analogy is that people become more creative if they enjoy what they are doing (Pink 2005, p179). The idea is that enjoying being creative will in turn foster creativity, which can then permeate into other skill areas. Pink gives this example of an airline company which has adopted this idea. “...Southwest Airlines mission statement offers clues to its stellar performance. It says, “People rarely succeed at anything unless they are having fun doing it”...” (Pink 2005, p179).

Play in dance can also be associated with improvising or trying out a phrase with different dynamics. Similar to a jazz musician playing around with different notes a dancer can manipulate movement experimenting and discovering what they enjoy.

The aptitude of meaning is highly relative in certain forms of dance. For instance, in classical Indian dance, direct spiritual connection between the dancer and a greater being is forged.

At its best, dance has the most powerful means to lead its worshippers – the artist – to the Divine. It is a sincere depiction of the Divine. It is a sincere depiction of the realities in life, an embodiment of the imagination and gracefulness, the very soul which thereby creates as it were the “Idol of the Beautiful” (Indian Classical Dance).

Yoga, although not a strict dance form, is another example of movement that serves to benefit the inner being through meditation and is based around postures and breathing. It serves to integrate the body, mind and spirit into one to seek the divine within. “...Yoga has been called a science or technology of liberation. This is because, unlike purely theoretical philosophies, yoga seeks to provide the student with a practical path (or indeed many possible paths) towards the common goal of liberation...” (Unkown, 18.10.2006 Yoga).

All six of these aptitudes can be found and developed through the form of dance. This brings us back to the question are the skills learned in dance transferable to other areas and domains. Csikszentmihalyi’s research would answer yes to that question for he believes creative people have the ability to transfer their creative knowledge into other areas.
Mihalyi Csikszentmihalyi is a psychologist from the University of Chicago. His extensive research investigated how individuals learn. He discovered that enjoyment may be the key to successful learning. The experience of enjoyment becomes a learning experience which can then be distinguished from the rest of life experiences. This is known as the flow experience because people from the study concluded that an enjoyable experience was like getting swept away by a current, like being in a flow. The flow experience theory proposes that a person needs to be fully immersed in a task in order to successfully learn from it and to be fully immersed in a task the individual must enjoy it (Csikszentmihalyi, 1990, p13). We can relate this back to Pink’s aptitude of Play, enjoyment promotes creativity.

Csikszentmihalyi also researched into the lives of creative people investigating how they learnt and how they used their creative abilities, he concluded that creative individuals often use their creativity across multiple domains. “...creativity generally involves crossing the boundaries of domains...” (Csikszentmihalyi in Pink, 2005, p131). This explains one talent creative people have over less creative individuals, that of is multi-tasking. Creative people have the ability to make connections across domains. “... The most creative among us see relationships the rest of us would never notice...” (Pink 2005, p131). Our world at present is prevalent with the idea of multi, we live in a multi-cultural society, we are entertained by multimedia and our jobs usually require us to complete multiple tasks and have multiple skills (Pink 2005 p131). Levels of multi-tasking vary in each creative individual but it is a trait that is of great benefit to the individual.

The unique aspect of dance in relation to multi-tasking is that dance itself relies on a dancer being able to multi-task. A dancer has to be an athlete, an artist, a communicator and a technician. These skills involve using the body and mind at the same time. Not only do dancers have to think creatively but also logically. They have to be aware of own their aesthetic choices as well as the choices of other dancers. Dance is a discipline that requires multitasking and has the ability to develop this attribute within the individual.
Conclusion

Creativity will always be a beneficial and sort after trait in the individual. How we harness our creative ability depends on our learning environment, influences from educators, family background and the knowledge we attain about the process of creativity.

Creativity is definitely a skill that can be developed given the right situation and information. Dance proves to be very effective in providing these to requirements and as a result nurtures the creative potential in the individual. It is “environmentally friendly” in its creative development approach and encourages traits such as self awareness and self confidence. Dance students learn aesthetic qualities and conceptual thinking, they also learn how to multi task and be exceptional communicators. These characteristics and skills are all qualities of creative individuals. It is evident that the more advanced the student becomes the more creative traits they possess, but creative traits start to evolve from the beginning of learning dance.

The traits and creative abilities that are learnt through dance can then be transferred into other skill areas providing that the individual has gained knowledge and understanding of the skill area previously.

Dance has proved itself to be highly beneficial in developing creative potential in the individual. The people that have recognised this are set to gain many benefits from their dance experience.
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