

**The Transformative Power of Creative Process in Learning:  
Defining a Path to Relational Connections with the Environment**

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## ABSTRACT

This project offers an analysis of how the “transformative power” of creative process in learning offers humankind relational connections with the natural environment. It supports the recommendation that educational institutions move towards a transformative creative learning process. The paper argues that by teaching children through assumptions of the world as in constant creative becoming humankind will move toward a more encompassing, coherent story of the universe which allows for the increasing self-actualization of individuals. After offering a theoretical discussion of the transformative power of creativity through the works of Brian Swimme, Edmund O’Sullivan and Alfred North Whitehead, the author provides descriptive, interpretive and critical narrative accounts of a teaching occasion created by her in which she illustrates her understanding of this transformative power.

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## **1.The Origin Story**

*“Periods of tranquility are seldom prolific of creative achievement.  
Mankind has to be stirred up.”*

-Alfred North Whitehead

The role of the artist throughout history has been often defined as ‘visionary’, a medium of sorts, capable of bringing to life the spaces which are rarely seen and experienced. An artists’ ability to capture essences of worlds unknown, to connect or make visible the invisible realities, to captivate and inspire methods of activism have granted many individuals the opportunity to live a life filled with possibilities unimagined. The same can be said about educators. Both artist and educator exist in systems of analysis; systems that require active observation and engage in processes that seek to provide transformative possibilities. Our role as educators is to inspire greater meaning-making. We are to be visionaries and in turn, create visionaries, in hopes that future generations look to alternate possibilities in how they choose to define their role on this planet. Let us look to the past and live out presently the unimagined possibilities, to take a chance to inspire active creative change.

### **1.1. Connecting To Everything: Awakening Creativity**

This story begins with the act of creation, the process of birth, the growth of a being, the ramblings of a mother of three about to give birth. The creation of this story begins with interruptions of little people running in and out of the office, wondering when mom will be finished and not really listening to the answer as they run back out to push boundaries in their games of innocence and intrigue. This telling recollects many pasts, many former presents and former anticipations of many futures coming together in processes of new discovery. As I struggle to codify the meaning of this activity, I turn my gaze in silent apprehension. I ponder what might happen if only humankind could re-

awaken to such precious moments of absorption and wonder. Then I turn back to write into representational existence the purposes, concepts and ideas lived at hand. I dream that one day all of these wonderings might lead back to the discovery I have been questioning: how does the innate power of creativity inspire or motivate human beings to desire a clearer understanding of their purpose on this planet? I sense these feelings as part of a universal network or web of feelings. Brian Swimme (2001) speaks to this desire, “We awake to a universe permeated with allurements, and our most primal desire is to become this allurements. We awake to a universe filled with fascination and our most fundamental urge is to become this fascination” (p. 55).

As another being presently grows inside me, I understand and feel the inherent connections of allurements and fascination. I feel faint understandings of creativity in a most primordial and visceral form. I have the ability to understand, based on scientific observation, the physicality of the changes I go through daily as this being grows inside of me. Yet I am constantly aware that I have no comprehension of how this life came to actually be. By this I mean that I rely on the factual information I have learnt mechanistically about how this being was made, can grow, and what it will become. Yet I desire a universal or holistic concept of creativity to try comprehending the unknowns. How did this being actually come to be? I experience the creativity of this creation from my immediate relation to this growth, but I do not experience this creativity from inside the subjective experience. I wonder if being able to express myself in words rather than action and feeling allows me to speak from a place of privilege. Does this experience of relation speak to deeper understandings and other connections with the world around me? I believe that through the exploration of trying to find the right words to explain this

process of creativity, my transformation of personal awareness awakens to the multitudes of possibilities that are continually coming into being. It is the transformative power of the written creative process that brings me closer to my own self- actualization. Robert Regnier (2005) speaks to this process,

Learning occurs through the continuous transformation of feelings and ideas into patterns of connectedness. Value emerges subjectively via prehensions of past influences in relation to current possibilities. Transcendence and immortality emerge in the novel value particular to the character of what is achieved in each learning event. The learning that is accomplished in writing a paper, for example, transcends the individual value of those divergent and disparate feelings, influences, and ideas present in it. In the writing process, these feelings, influences and ideas are gathered together creatively. In the finished work, they constitute a novel creation which transcends what previously existed. In this way, valuing brings new reality into being. (pp. 4-5)

What would it be like to feel from the subjective experience of this new growth inside, and to experience all awareness from within the confined safety of another? Does this person growing inside me, this participant in constant creativity, wonder what it's like to be outside of ones self? Does this person even have premonitions of desire to know more than it knows right at this moment, or perhaps know the feelings of disconnection? Does this person know what it means to be present or what it means to inquire about ones past, present or future moments? Or, does all of this happen because of the disconnection that takes place from the moment this person enters the world, either by choice or force? Is it the human condition to reenact this separation, and to create



further distance between one's self and the environment because of the departure from the womb? I raise these questions as I try to comprehend the origins of humankind's desire to perpetuate the continued disconnection with the natural environment. Schools, parks, museums, zoos and artificial biospheres are examples of the continued disconnection. The mechanistic world tries to create improved and artificial realities that provide generalized knowledge and underlying policies that govern how, when, where and why humankind experiences the natural world. Breaking ecosystems into parts, habitats into pieces and compartmentalizing human interactions, humankind continues to find ways in which to dominate and disconnect their lived experiences of nature. Mechanized, fragmented systems provide perceived safety and an abstraction or false reality of the natural experience. Humankind's tendency to oversimplify and abstract phenomena is a way to control, under the guise of understanding, the lack of prehending the unexplainable.

I feel this other from the outside in and as I know with heart, mind and body that everything I experience is not only my own, but is equally shared with someone completely different yet living in the same moment. I tell myself to believe I am filtering and protecting this new person from all the harm that may come from the outside world and even at times from the thoughts that I am thinking. Then a small kick gently reminds me that this person too has its own awareness, needs and wants. I do not like to call this unknown person an 'It', but his or her identity remains unknown. The story of this new person's origin is evolving. This person inside is an actuality comprised of potentiality. It has and will be shaped by past and future possibilities that can only be imagined, yet still remain unknown.

The story of my cosmological origin might tell the tale of what shapes my intrigue today. Or perhaps it is like many other personal human experiences, filled with uncertainty, curiosity and a forward linear progression of time. In trying to capture the essence of what once was, I find myself wanting to be at the end before I even give myself the chance to begin. I desire the answers to questions that can only come from the process of defining the very words that bring into existence new actualities. The abstract dreams, ideals and thoughts that live inside my being want to become concrete realities. I have been taught to recognize these abstract moments as product, and the recognition of process is the essence of what has begun to set them free.

As both an artist and educator I have learnt to express and place value on these abstract dreams in the product form of a painting, sculpture or body of text. For example, the creation of a sculpture often begins with an abstract moment, dream or concept. In the process of turning these abstract notions into concrete realities, combinations of previously unrelated elements or materials are placed together to form connective patterns that come to mean more through their emergent whole. Yet as I come to offer an analysis of how the transformative power of creative process in learning offers humankind relational connections with the natural environment, I recognize that the true transformative power lies in what the creative process uncovers, the potential to “constitute a novel creation which transcends what previously existed. In this way, valuing brings new reality into being” (Regnier, 2005, p. 4).

## **1.2 The Origins: Self And The Universe**

This project analyzes how the “transformative power” of creative process in learning offers humankind relational connections to and with the natural environment. This project’s specific focus on “transformative power” in the creative processes of learning should not be confused with a simple investigation into the “power of transformative learning”. There are several ideas of transformative learning as theorized by various authors including Paulo Friere and Edmund O’ Sullivan. They elaborate on structures and processes of transformative learning. Rather than adopt these theories or create a new theory of transformative learning, this project sets out to investigate the capacity of creative processes in learning to make significant changes in the relationship of individuals to the environment. This project does not attempt to create a new theory of learning. Rather, it focuses on exploring the power or capacity of creative processes in learning to change reality from what it was to something distinctively new or novel. Nevertheless, this work is inspired by and sees itself as part of and contributing to transformative learning theory. It will facilitate a deeper understanding of what is meant by the notion of transformation, and by the power of transformation as I experience and recognize it in through my own teaching.

This project advocates the notion that our educational institutions move toward a holistic type of learning process. A holistic approach to education supports a belief that humankind lives in reciprocity with the entire universe. As stated by Swimme and Berry (1992),

Education might well be defined as knowing the story of the universe, of the planet Earth, of life systems and of consciousness, all as a single story, and

recognizing the human role in the story. The primary purpose of education should be to enable individual humans to fulfill their proper role in this larger pattern of meaning. (p. 256)

I believe that if we teach our children that every moment is in a constant state of becoming or creativity, they can begin to learn from a place that combines concept with observation. Learning that takes place utilizing both book curriculum and lived experience introduces a holistic approach to understanding concept and application of observation. A.N. Whitehead (1967) states, “ By utilizing an idea, I mean relating it to that stream, compounded of sense perceptions, feelings, hopes, desires and of mental activities adjusting thought to thought, which forms our life” (p. 3). Humankind will then be able to move towards a more encompassing, coherent, relational story of the universe. The story of the universe is a story of allurements, fascination and transformation. The story is the narrative of the whole world in “a special mode of conscious self-awareness” not only as defined by human existence or scientific aspects (Swimme & Berry, 1992, p. 1).

Creativity is the capacity to generate novelty and to bring something new into existence. Human creativity includes the ability to generate innovative, original ideas. However, human creativity is grounded in processes more fundamental than just the generation of new ideas and concepts. Human creativity is part of the more encompassing core process in the self-emergence of the universe and is the process in which each entity comes into existence. To create is to manifest thoughts into reality, to cause to exist, to bring into being, and to originate.

Creative process is the journey of bringing something into being. By drawing on the Whiteheadian notion of creativity as expressed by Malcolm Evans (1998), “creativity is basis of process, and issues into novelty. Such novelty arises from a sequence of events” (p.66). Creative process is therefore the core process in the self emergence of the universe; a never ending cycle of coming into being.

“Becoming used as a noun names a process. The process of becoming is that of acquiring definiteness (competence, form) by deciding, consciously or unconsciously, among alternatives that are currently experienced. (Evans, p.78)

I use the works of Alfred North Whitehead, Edmund O’Sullivan, Thomas Berry and Brian Swimme in this project to help examine the transformative power of creative process as a solution to the ever-evolving disconnections of human communities experience with the natural environment.

I look to Whitehead for definition of process and creativity. Process philosophy in the educational context derives its basic concepts of holism, interconnectivity and relationality from Alfred North Whitehead. Process speaks to the connectivity of every living being, in every living moment, past, present and future -- the whole, comprised of parts that cannot be divided. Process is the flow of connected experience both active and alert (Evans, 1994) and is a system that is constantly in motion and ever changing, turning itself inside out while moving forward. According to Whitehead, process does not limit itself to procedures, applications or formulations; it is a fluid state of coming from and going forth. Process derives its base from creativity. Creativity is the ultimate character shared by all living things.

Edmund O’Sullivan (1999) advocates that humankind move towards the development of a transformative, shared cosmology. He asks educators to shift our perspectives radically within institutions, and promotes a movement toward building “a relationship of mutual enhancement between humans and the natural world” (p. 46). O’Sullivan calls this following the “transformative Ecozoic vision” (p. 47) rather than the tradition of educating from the “progressive technozoic” (p. 47) which is heavily reliant on the scientific, technological and industrial paradigms that are currently contributing to our failing relationship with the planet and will lead to our eventual extinction.

I am inspired by the works of Thomas Berry and Brian Swimme (1992) as they advocate for a new type of history and science to come forth, one that embraces “a new type of narrative, one that has only recently begun to find expression....a narrative of the universe, told in the sequence of its transformations and in the depth of its meaning” (pp. 2-5). Their shared belief that humankind must move toward a more comprehensive understanding of the universe story makes clear our capacity to self-actualize.

The purpose of this project is to establish how the self-actualization of individuals in learning can inspire and result in the re-evaluation of past beliefs to inspire an emergent story of the universe, a story that offers humankind relational connections with the natural environment.

### **1.3 Method: The Narrative of Process**

The choice of a narrative methodology for this project, has allowed me to question and understand how transformative power relies on creative process to create relational connections with the natural environment. Swimme and Berry (1992) speak to the

immense importance of narrative as a way for humankind to begin to understand the immense story of the universe. The narrative provides context for our own understandings and way of knowing that requires imaginative power combined with intellectual understanding. This leads humankind to a story that evokes the greatest awe and leads to a path of greater meaning-making.

The single greatest achievement of the entire venture from Copernicus to the present might be recognition that the data of the universe that we now possess is best understood in terms of a narrative telling of the sequence of transformations that the universe has gone through in its self-shaping emergence throughout time and space. This self-shaping process contains in itself its own directions and its own fulfillment as it has moved over vast periods of time in the larger arc of its process towards a greater differentiation and more intimate bonding, toward a greater variety and intensity in its psychic mode of expression. (p. 236)

Transformative power is a discovery in self-emergence or awareness, and creative process engages the innovative steps that define the path on that journey. Narrative is a methodology in which humans and the universe create and recreate new realities. According to Clandinin and Connelly (2000), narrative methods speak to the organic growth that occurs in the development of the story form. As the story unfolds, so do the various meanings in the continuity and whole of the individual's life experience. Life is a lived experience, and narrative is a way of coming to understand those experiences. Narrative is more than story telling, it is how meaning-filled learning is created.

In this project I turn to narrative to share a story in three forms or three ways of seeing the same situation. I use a descriptive account of a practical teaching experience, a

reflective account that inspired me to inquire further into what meaning lay in the experience, and a critical account to analyze the transformative power of creative process in learning.

The descriptive account illustrates through story the scenario and events that brought the students to the particular experience. This establishes a basis from which I draw my interpretations. Through describing the experience, I hope to bring the reader to the space in which the experience occurred, so they may be able to see themselves in either the role of student or educator and find a practical account from which they too can draw from.

Second, I provide a reflection on that same experience that explores the meanings created in that experience. This reflection is based on my internal observation while directly observing the external experience. This interpretation explores the spaces in which the students experience the transformative power of creative process.

Third, I provide a critical analysis or subjective breakdown of the experience as it relates to the transformative power of the creative process in learning. I share the experiences that brought me to question our current educational frameworks. By sharing the stories, reflecting on why they are relevant and then analyzing these components, I hope to inspire an alternative framework and advocate for a more holistic approach to our educational undertakings. I believe that teaching and learning through narrative is part of the fundamental shift that needs to occur to move us toward a reconnection with the natural environment.

Sharing personal experiences within a community speaks to our desire to create a dialogue of consciousness. In communal dialogue, a new way of being can emerge based



on the shared experience of common meaning. A deeper sense of integration, recognition and interrelation can be experienced as consciousness shifts toward community involvement. As Moore (1988) states, “[i]n the process of arousing consciousness and stirring imagination, narrative raises a persons’ awareness of the social situation and of new social possibilities” (para.17). The creation of a new story for the universe can find voice in this community and move us toward a transformative holistic model of education. In doing so, human beings are being asked to awaken to possibilities only imagined; possibilities that call on the process of innovation and originality to make material their existence.

Transformation in learning is a key to addressing the current crisis of the modern mechanistic education model. In my quest to restructure many current educational directions, creative process has allowed me to be witness and participant to the possibility of holistic education (O’Sullivan, 1999). A shift towards holistic education is essential if human beings are to continue to survive. O’Sullivan (2002) states,

Transformative learning involves experiencing a deep structural shift in the basic premises of our thoughts, feelings and action. It is a shift of consciousness that dramatically and permanently alters our way of being in the world. Such a shift involves an understanding of ourselves and our self locations, our relations with other humans and with the natural world; an understanding of the relations of power in the interlocking structures of class, race and gender; our body awareness; our visions of alternative approaches to living and our sense of possibilities for social justice and peace and personal joy. (p. 11)

## 2. Seeking To Define The Transformative Power Of Creative Process In Learning

*“Our minds are finite and yet even in these circumstances of finitude we are surrounded by possibilities that are infinite, and the purpose of life is to grasp as much as we can out of that infinitude.” -A.N. Whitehead*

This section defines how transformative power in the creative processes of learning can be used to create “relational connections” with the environment. I define the transformative power of creative process as “the self-actualization of potentials that the past and present moves forward towards the emergence of new potentials.” For example, an educator or student may express an alternative perspective that leads another to rethink and recreate that which he or she has known in the past to be objectively true. This invites the individual to reconsider and design a solution that addresses the shift that has occurred in their consciousness toward a new understanding of the present moment.

The transformative power of creative process to create relational connections is the very experience that awakens the student to the constant potentials of creativity that they intrinsically are in communion with. The student comes to actualize the many possibilities that this communion and creativity are constantly presenting and is inspired, if given opportune conditions, to embrace the potential of a deeper connection with the natural environment. A renewed sense of interest and wonder is awakened in the individual as awareness and presence grounds the individual in or to place. A novel way of being in the world and new ways of relating with each other can emerge, bringing forth a deeper sense of integration in what has been learned and experienced.

Whitehead (1978) speaks of creativity being the “universal of all universals”, that all things are in the constant process of coming into being. Inviting students to become aware of this notion asks them to see the wider “creative processes” of the natural world.

If students are able to experience their world as becoming, and the planet as being self-emergent, then perhaps they too can transform their understandings of self and begin to learn from a holistic perspective.

## **2.1 Creativity**

To participate in this world, human beings perceive, redefine and reorder that which is unspoken, unseen and untouchable. Individuals are equipped with capabilities to participate and engage in physical, emotional, sensorial and spiritual ways of understanding, and are able to experience in the same moments that which is actual as well as the non perceived in the potential. Alfred North Whitehead (1957) believes that every being is in a state of “becoming and perishing” and that every moment is exclusionary. Creativity, the ultimate character shared by all actual thing, is the moment of exclusion, in which the present (subjective) and the past (objective) become one (Superject). The Superject is the moment in which the subject and object come together and the feeler (individual) can feel connections to possibilities of the greater good. This unity of feeling, a living example of the lure to the greater good, calls on humankind to bear witness to the vital spirit or human experience within each of us. This space provides humankind freedom, imagination, and self-awareness of the interconnectivity within the natural world. Humankind becomes a living example of the interconnectivity within the natural world. Experience and desire in this pro-creative reality allow humankind to feel the most innate sense of integration and relationality. Whitehead (1957) states,

The Subject-Superject is the purpose of the process originating the feelings. The feelings are inseparable from the end at which they aim; and this end is the feeler. The feelings aim at the feeler, as their final cause. The feelings are what they are in order that their subject may be what it is. Then transcendently, since the subject is what it is in virtue of its feelings, it is only by means of its feelings that the subject objectively conditions the creativity transcendent beyond itself. (p. 259)

According to Whitehead the universe is in the process of continual ‘becoming’ and humankind experiences the world in three ways. Bernie Neville (2001) speaks to Whitehead’s modes of becoming in his paper *Education as Transformative Process*. A sense of oneness with the universe is the ‘confluent mode’. This mode is the past physical experience of the universe as it flows into the present. Our sense of otherness outside the universe is the ‘discernment mode’. This mode is a present mental experience that one can consciously step back and observe. Experiencing the natural world in these ways does not foster a relational connection. This connection becomes apparent through the third mode of experiencing. The ‘spiritual mode’ allows mankind to develop and distinguish between the world as it is and the world as it might be. This mode entitles humankind to experience imagination, the creative impulse with the ability to go beyond what is actual and see the greater possibilities. Humankind must determine, feel and define the moment where the world feels itself simultaneously. Creativity is the moment where the internal and external worlds meet and have the potential to become the actualization of awe.

Brian Swimme (2001) speaks to this actualization as the “allurement of attraction”:

...we discover not only that we are interested, but that our interests are entirely our own. We awake to our own unique sets of attractions....Each person discovers a field of allurements, the totality of which bears the unique stamp of that person's personality. Destiny unfolds in the pursuit of individual fascinations and interests (p. 47).

According to Swimme (2001), allurement is the fundamental mystery of the universe. It is the gravitational pull that evokes the birth of new entities and nothing would exist without this attraction. Allurement comprises all forms of attraction yet remains completely indefinable. The attraction between all beings binds itself to one another and evokes fascination. This transformation releases a new energy that fills all areas of life and is in every essence the transformative power of the creative process. When humankind encounters an experience that bears witness to the recognition of awareness, we find ourselves overwhelmingly interested; something is evoked in our residual self. This interest has the power to transform our entire worldview. Often we find we are alone in the experience, and although we are alone in the interest's presence, we are content because we understand and acknowledge a feeling that fills our core being. We experience a love for something that is completely our own. We are attracted to that something, in whatever form it presents itself, and we know with our core being that it is part of us. Not only does it make us whole, but it compels us to move toward further discovery which in turn can complete us through the process of uncovering. Applied to learning, the transformative power of creative process is the many becoming one, calling into existence that moment of attraction and making physical the inner dialogue of experience.

Creativity is the capacity to generate novelty, to bring something new into existence. Human creativity includes the ability to generate innovative, original ideas. However, human creativity is grounded in processes more fundamental than the mere generation of new ideas and concepts. Human creativity like all creativity is found as part of the self-emergence of the universe, it is the process in which each entity comes into existence. Swimme (2001) states:

All exists in the emptiness of your potentiality, a realm that cannot be seen or tasted or touched. How will you bring these powers forth? How will you awaken your creativity? By responding to the allurements that beckon to you, by following your passions and interests. Alluring activity draws you into being, just as it drew the star into being. Our life and powers come forth through our response to allurement. (p. 51)

This creation process can include the manifestation of thoughts into reality in various forms such as through art, language and invention. These forms in turn can cause new realities to exist. Creative process occurs through relating actions or steps that brings a new something into being. In the atomistic cosmology of Whitehead, creativity is understood in terms of how reality is comprised of “events” which are themselves constituted by events. Within this view, creativity occurs through the process of prehending, concrescence and satisfaction.

Whitehead (1957) describes prehension as consisting of three factors:

(a) the ‘subject’ which is prehending, namely the actual entity in which that Prehension is a concrete element; (b) the ‘datum’ which is prehended; (c) the ‘subjective form’ which is how that subject prehends that datum. (p. 23)

For creativity to advance into novelty, a uniting has to occur. Concrescence is the process or moment of integration that brings the prehensions together. Concrescence is a growing together of related entities (Evans, 1998, pp. 68-69) and the result of many novel potentialities prehending other diverse potentialities to form one actual occasion.

Concrescence is the essence of the transformative power of the creative process, the result of many novel potentialities prehending other diverse potentialities to form one actual occasion or moment the world turns itself inwards and expels outwards simultaneously.

What inspires humankind to seek concrescence? Feeling the lure of the unknown, awe, wonder, stillness, discovery, inspiration, connectedness, and exploration are all essential experiences of the many actual occasions becoming one. Concrescence requires the learner who prehends possibilities to select one related purpose which they then integrate with relevant past experiences. They make what was only just thought of in the past moment possible in this and future moments to come. Whitehead (1957) observes that “concrescence concludes in satisfaction” (p. 211). Satisfaction is achieved when the new information becomes part of the student’s present knowledge and “the student has achieved one particular subjective aim” (Evans, 1998, p. 69).

Creativity, the link between past, present and future is in everything. It brings about change, evolution and is present and active at any given moment. Creativity comprises every dualism in life; birth/death, love/hate, individual/community, action/idea and is constantly coming into existence and perishing only to become once again. Creativity is the ultimate process in all that is continual. Creativity is the principle of novelty. An actual occasion is a novel entity diverse from any entity in the ‘many’ which it unifies.

Thus 'creativity' introduces novelty into the content of the many, which are the universe disjunctively. The 'creative advance' is the application of this ultimate principle of creativity to each novel situation, which it originates. (Whitehead, 1978)

Whitehead's universe contains only process. Process is the only ultimate reality comprised of creativity: the many become one plus one. Creativity is the ultimate process that is pure feeling without definition, and is the principal process shared by the many as they are transformed into one actual occasion. Creativity is the coexistence of actual occasions and eternal object, and "the name of the phenomenon by which actual entities become and then themselves enter into the act of becoming other occasions." (Oliver & Gershman., 1989, p. 121) The many become one actual occasion, but the actual occasion is not a thing but a process, and the "ultimate creature of the universe" (p.116). Actual occasions do not exist without other occasions as they are continuously prehending other occasions and thereby continuously coming into being or what Whitehead calls concrescence.

## **2.2 Transformative Power**

This project analyzes how the "transformative power" of creative process in learning offers humankind relational connections to and with the universe. Not all creative processes are transformative. Some creative processes are non-transformative, and do not result in the creation of a significant difference. While some processes produce limited achievements, and some fail to make distinctively novel or new realities, other processes are able to garner otherwise untapped potential and capacity and make a difference. An artist striving to capture the



essence of a felt moment will reveal that some or even many artistic efforts to transform raw colour and line movement fail. In other cases, colour and line can be transformed into a novel spirit or essence that emerges into a new distinct reality. Nevertheless, the power found in creative processes is the focus of the work, not merely the product of these efforts.

As an investigation about the “transformative power” of creative process in learning, this project poses the question: what is the transformative “capacity” or “potential” of creative process in learning? What makes the creative process capable of changing what exists or has existed into a new existence or kind of existence?

Creative process, the process of making or thinking in new ways about old and new ideas, is the vehicle that I use to challenge students about their own understanding of the place of humans on this planet. Challenging the students to move out of their comfort zones or comfortable ways of knowing, I ask them to create conceptual understandings and produce artifacts of the environment they are part of. In the process of moving from old or past ways of knowing into new ways of knowing, a transformation occurs. They are awakened to conceptual, imaginative combinations rather than just scientific observational representations of their natural environments and the ecosystems they inhabit. Their awakenings or transformations are not merely outward physical changes, but also changes that happen to the very core being of the learners. They see themselves for the first time in relation to rather than disconnected from the natural environment they are part of. Their sense of self evolves to experience itself in relation to the larger

planetary community. They shift from an individualistic sense of interpretation to a relational sense of perception.

I am advocating that our educational institutions move toward a relational type of learning process. I believe that if we teach our children that everything is in a constant state of becoming or creativity, and they begin to learn from a place that combines concept with observation, humankind will be able to move toward a more encompassing, coherent story of the universe. According to Swimme and Berry (1992),

The human mode of understanding, however, does bring with it a unique responsibility for entering into this creative process. While we do not have a comprehensive knowledge of the origin or destiny of the universe or even of any particular phase of the universe, we do have a capacity for understanding and responding to the story that the universe tells of itself, how it emerged in the beginning, the sequence of transformations leading to the wondrous world spread out before us in the heavens and the vast spectacle presented to us by the Earth in its geological, biological and human manifestations. (p.251)

Creativity is the capacity to generate novelty, to bring something new into existence. Human creativity includes the ability to generate innovative, original ideas. However, human creativity is grounded in processes more fundamental than just the generation of new ideas and concepts; it is grounded in the core process in the self-emergence of the universe. Self-emergence is process whereby each entity comes into existence. Swimme (2001) speaks to the self-emergence of

the universe and the role of human awareness in bringing meaning to this emergence.

To learn about creativity, we must begin to understand the creativity of the Earth.

We know of no other planet with Earth's creative power....The universe continues to unfold, continues to reveal itself to itself through human awareness.

The Earth awakens through the human mind. (pp.30-34)

What does this mean in learning? It means that when students awaken or become aware of the creativity in the universe they begin to actualize the potentials that exist presently. Regnier (2005) speaks to this challenge:

Challenged to maximize the value of what they have written and what is yet possible to write, students create texts that both conserve and incorporate the character of what they have already written into what has not yet appeared. As new ideal possibilities emerge and as selected ideals are continuously selected and actualized in their papers, incorporated ideals become a base of accomplishment that projects further possibilities for future actualization. (p. 3)

Learning is often the process of making a transition from some cognitive or non-cognitive capacity or potential to the realization of that capacity. Learning often includes the transition to something known from something previously not known. When the student awakens to the present moment they are participants in,

...active learning is evidence of actualizing his or her potential. The events of schooling, materials, milieu, technique, experience, come together to yield an outcome, a novel result of the creativity inherent in all things.... The complex

interconnections of learning illustrate the many becoming one in human development and presence of creativity. (Evans, 1998, p. 67)

The transformative power of the creative process is the process of self-actualizing. Self-actualization is grounded in the present moment. Whitehead (1967) states, “The present contains all that there is. It is the holy ground, for it is the past and it is the future” (p. 3). Self-actualization is the shift that occurs when a student begins to experience self in the world as it is presently. The student experiences the world as comprised of subjects rather than objects and is therefore able to shift from objectively thinking to subjective awareness. In the process of examination and discovery of potential possibilities, the student begins to make selections that move the student towards the actualization of the present creativity that surrounds them.

To transform is to alter irretrievably, to become something different, to undergo a metamorphosis yet to somehow remain the same. I define the transformative power of creative process as “the self-actualization of potentials that the past and present moves forward towards the emergence of new potentials.”

The transformative power of creative process as it relates to learning is the experience in which the student self-actualizes the most meaningful selected potentials. For example, a fine arts student goes into the world and creates a piece of artwork. This work can be realized in part by the combination of something that resides inside the student with the learnt knowledge gained from the teacher. These combined elements bring into existence a novel idea.

Swimme and Berry (1992) speak to the communion of self as intricately and inseparable from the universe from which humankind originates.

To be is to be related, for relationship is the essence of existence. In the very first instant when the primitive particles rushed forth, every one of them was connected to every other one in the entire universe. At no time in the future existence of the universe would they ever arrive at a point of disconnection....

Nothing is itself without everything else. (p.77)

The transformative power of creative process to create relational connections is the very experience in which the student awakens to the constant potentials of creativity they intrinsically are in communion with. The student comes to actualize all the possibilities that this communion and creativity are constantly presenting, and is thereby inspired, given opportune conditions, to embrace the potentials of a deeper connection with the natural environment.

### **3. The Anything But Not Something**

This section examines the shift that occurs in students' learning when they are invited out into the natural environment to create 'anything but not something'. In a series of exercises, I asked a group of students to place their focus on creating concepts of the environment, the "anything" rather than direct observations of the landscape, the "something". In a series of innovative actions, such as building a sculpture, playing, or fort building, I asked the students to create original physical embodiments of concepts such as "spirit", "place", and "discovery" using materials from the natural environment.

As the students began creative processes of building these forms, they are awakened to meaning-making and to their connectedness with the physical environment. The students made immediate connections with the unlimited potential of using a wide variety

of natural materials in experimental methods. Accidents or mistakes, such as mixing the wrong colour or the discovery of a material that provides sensory pleasure, honor the unexpected challenges that awaken these deeper connections. Once engaged in this unobvious connectedness, the very process of creation and communication of thoughts and feelings without the limitation of words validates the students' insights and gives value to their approach. Once these new connections are felt, the student can then awaken to the apparent ability to bring something new into existence. This recognition invites the student into the dialogue of making meaning of the process and valuing the experience they have just been part of.

When asked to think differently or creatively about the materials, environment and processes they are engaged in, the individuals begin to re-evaluate their previous knowledge and expectations of the given situation. They are asked to go within themselves and explore the notions they have of themselves in relation to the natural environment. They explore the notion of the natural world as the object humankind "makes use of" or the subject humankind "exists within". In the process of discovery and exploration of the unknowns, innovative variables reveal themselves and individuals experience a new perspective on how they experience the natural world. The transformative power of creative process requires the active engagement of the re-evaluation of original ideas and promotes the generation of new ideas.

This project sets out to establish how the self-actualization of individuals in and through learning can inspire and result in the re-evaluation of past beliefs. This re-evaluation inspires an emergent story of the universe that offers humankind relational connections with the universe. "Learning capacities are not static. Rather, they emerge

and evolve according to relations in context with the selection and the honing of disposition and skills that allow the greatest achievement” (Regnier, 2005, p. 13).

To learn is to discover and to envision a greater context of meaning. A.N. Whitehead speaks to this notion,

What is wanted is an appreciation of the infinite variety of vivid values achieved by an organism in its proper environment. When you understand all about the sun and all about the atmosphere and all about the rotation of the earth, you may still miss the radiance of the sunset. There is no substitute for the direct perception of the concrete achievement of a thing in its actuality (1967, p.199).

In seeking to provide a full interpretation of the meaning of the transformative power of creative process in learning, I set out to analyze an account of personal teaching and learning experience. In the early summer of 2008 at camp located in Northern Saskatchewan I facilitated an afternoon of creative place-based experiences with a group of Grade 12 students that explored concepts of self, spirit and community. This account of my experience illustrates the transformative power of creative process in learning and my role as educator in this process. I set out to guide the participants through a relational learning process that encapsulated the intricacies of the eco-region, creating a number of hands-on, self-guided and value-complex learning experiences. These experiences were grounded in the introduction of the constant processes of creativity that are continuously taking place, and bring forth a greater awareness of the learning experience in the students. As Regnier (2005) notes, “Achieving intensity is at the heart of this learning, and making this intensity possible is at the heart of teaching. Through intensification,

increasing broad ranges and diversities of contrasting feelings, emotions and thought become reconciled in self-creating subjectivity” (p. 4).

I asked each participant to come to the landscape with only an awareness of themselves and a small thought of their story of origin. Their story of origin often began with an explanation of geographic identification, for example, I was born here, I lived here and so forth. Given enough time and presence, their story then unraveled into a series of self-reflective memories of how they came to be in this present space. Their stories of origin were comprised of who they were and who they want to become, but very rarely who they presently are.

I asked the students to create “anything but not something” using only the natural materials found within their immediate surroundings. Through the introductions of these ideals to the students, I intended to engage their intrinsic desire to first create and then learn from a place of abstraction and concept, for example, beauty, faith, spirit and to remove their extrinsic habits of learning from the concrete, observational, symbol-based world. I asked the students to move away from fragmentary product thought and move toward holistic process action. The product output tends to rely heavily on symbol based representations, while the concept of process-based action refers to techniques that can lead to new meanings. In the process of this shift, students are presented with a clearer understanding of possibilities for potential previously unknown that can inspire a longing to move towards self-actualization.

I seek to demonstrate the transformative power of creative process in learning using the narrative tools of description, reflection and critical analysis. I feel it’s important that this project provides the brief physical descriptions of the key moments that I realized the



transformative power of creative process was taking place. The discussion then moves into the reflection stage, where I offer an interpretation of those moments calling on the students' experiences and intertwining them with my own observations. I believe that these interpretations invite an exploration into different possibilities which may have transpired. I then use critical analysis to reflect the assumptions I have made based on dominant belief structures, and look at how alternatives for my own practice may make each educational experience more thought filled and holistic.

### **3.1 The Calling: The Description**

The Setting: Camp1, Northern Saskatchewan. Boreal Transition Ecoregion

I was invited to facilitate an afternoon of creative experiences with a group of approximately twenty-five Grade twelve students. After a brief introduction and sharing a bit of my origin story, I asked the students to grab a sketchbook, pencil and viewfinder. Their task was to go outside and capture the concepts of "spirit" or "belief". I did not give instructions on how they were to capture these concepts; I asked that they take thirty minutes alone to find a space where they could reflect on these ideas. When we came back together as a group, I asked the students to share their experiences. In sharing their experiences of process the students gave a fragmented breakdown. As they explained their product, they gave a detailed breakdown of formal visual elements such as line, perspective, composition and the symbols they had each chosen to use to represent their observations.

After everyone had shared, I asked if anyone had thought about using poetry, dance, story telling or performance to capture the concepts. The first response was

disappointment; many said had they known they were allowed to, they would have chosen a different way to express their ideas. I then asked why they chose to draw, and, if given the opportunity again, how would they create or represent these concepts differently. This time hands shot up and the most common response was they thought they had to draw because I had given them a pencil and some paper. A discussion of expectations, learning and process then followed. First we discussed different variables that one considers when trying to capture concepts such as spirit and belief. We tried to figure out how one could even make such abstract feelings physical, and what that translation would look like. I spoke to how mankind has developed a set of symbols that we often rely on to relay our common understandings of these concepts, and used the example of the heart as a symbol for love. I asked the students if they had experienced the feeling of love and if so, what medium best described or translated this concept. Many of the students spoke to examples of music's ability to able to capture these concepts and how abstract style paintings do the same. I how these mediums spoke to concepts of love, beauty, spirit, and belief, and the students responded that many times the mediums were not direct representational products, but rather a process, series or layering of concepts that left open a space to feel out an interpretation. Spirit and belief are not commonly observed through a series of symbols, rather these concepts are the felt processes involved in bringing them to life. Second, we reviewed factors such as what medium would best convey the concept, what part of the concepts one would focus on, and who the audience may be. These are some of the decisions required in a creative process, given such a large number of possibilities. Third and most importantly we discussed how their education to this point had taught that there was often only one

purpose for a pencil and paper in the context of creativity: to make a formulated, observational, directly representational drawing, and to represent the world as precisely and concretely as their technical skills would allow.

In the next task I asked them to break into groups of three and to remember their previous self-imposed limitations. I asked them to use the given tools differently, and to break the habit of seeing their medium in such concrete, scientific, objective ways. I asked them to “create anything but not something” using subjective natural materials they found on site. I gave guidelines that their actions must not harm themselves, others or the environment. After one hour we came back together and discussed the experiences.

### **3.2 The Discovery: The Interpretation Of The Experience**

The transformative power of creative process as it relates to learning and creating relational connections is the moment in which the individual self-actualizes emergent potentials that connect him/herself to the universe and is thereby inspired to formulate new connections that shift the way in which they participate with the natural ecosystem. A relational connection recognizes and acknowledges the interdependency of all of the earth’s species and invites an individual into the narrative of a unified emerging universe. A relational connection is focused on the development of community toward a planetary consciousness. The transformative power of the creative process asks the individual to recognize self in relation to the universe. Brian Swimme and Thomas Berry (1992) speak to relational connectivity and the indivisible nature of interconnectivity between humankind and the natural world through the ideas of cosmogenesis.

Cosmosgenesis is organized by communion. To be is to be related, for relationship is the essence of existence. In the very first instant when the primitive particles rushed forth, every one of them was connected to every other one in the entire universe. At no time in the future existence of the universe would they ever arrive at a point of disconnection. Alienation for a particle is a theoretical impossibility. For galaxies too, relationships are the fact of existence....Nothing is itself without everything else...[t]he universe evolves into beings that are different from each other, and that organize themselves. But in addition to this, the universe advances into community -- into a differentiated web of relationships among sentient centers of creativity. (p.77)

An emergent story of the universe continues to unfold before our very eyes.

Comprised completely of past events unfolding into present moments, humankind does not exist separate from any being. Recognition of this subjective interconnectivity, and the awakening to the fascinating transformative moments that happen continuously calls upon every individual to assume the role of student with the planet as the ultimate teacher. As I interpret the Camp 1 experience, I begin to see that the transformative power of creative process is in the process of awakening to the subjective relational connections between the students and the natural environment.

To examine the shift that occurs in students' learning when invited into the natural landscape to create 'anything but not something', I ask them to place their focus on the creation of concepts of the environment (the anything) rather than direct observations of the landscape, (the something). In a series of innovative actions such as building a sculpture, playing, or fort building using materials from the natural environment, I ask the

students to create original physical embodiments of concepts such as “spirit”, “place”, and “discovery”. As the students begin building these forms, they slowly awaken to the physical environment as the processes of life constantly unfold around them. Asked to think differently, creatively or subjectively about the materials, the land and processes they are engaged in, the individuals begin the process of re-evaluating their previous objective knowledge and expectations of the situation. They are asked to go within themselves and explore the notions they have of themselves in relation to the natural environment. The shift occurs when they begin to see and feel that they are “not apart from” but rather “a part of” the natural world they are working within. In the process of discovery and exploration of the unknown, innovative variables reveal themselves and the individuals gain a new perspective of how they experience the natural world. The transformative power of creative process requires the active engagement of the re-evaluation of original ideas and feelings and promotes the generation of new ideas and feelings, and supports a shift from objective unconsciousness to subjective consciousness.

In my reflections on this experience, I often wonder where or when the meaningful transformations transpired. When the students shared the accounts of their actual experiences, they provided a formal, very self-critical analysis of their physical product, and spoke very little about the self-discovery processes, critical decisions or feelings they had just experienced.

When I inquired as to what was actually created, many shrugged their shoulders and said they made a picture out of sticks, mud and moss. I then asked how they made their choices, and more importantly, why they felt they needed to express themselves through such concrete representational observations of the landscape. I wondered where they

actually existed within their experiences: were they passive participants, active observers or simply mirrors reflecting the world they were a part of. I inquired as to where they saw themselves in relation to the natural environment; did they participate from the inside or outside? Were they a part of or disconnected from the natural materials and world? I observed their creations and asked them to flesh the creations out more thoroughly, and to make the creation something that wasn't anything. I asked them to listen to the materials they had chosen, and make what the materials asked of them. In challenging the students with these tasks, I was asking them to move out of their comfort zone and awaken to or activate a more imaginative side of problem solving. I wanted to engage them in a sense of play that would bring a feeling of excitement in the moment. I wanted them to come to a place where they left their inhibitions behind and created for the sake of creating, self-expression and pure exploration.

Nervous laughter often arose, and I realized that the students needed to be given the permission to explore more playfully. I looked around the area that the students had been creating in and saw a large puddle, some fallen leaves and broken trees. I stuck my hands into the mud and began to cover their work. I grabbed some leaves, covered them in mud and stuck them to the tree. Upon seeing that they had the freedom to 'get dirty' each of them proceeded to give into play. Through this simple act, I communicated to them permission to challenge their own thinking by modeling the freedom to represent their reality in more abstract ways. They were no longer bound by strict observational representations, but were invited to or reminded of play. Log towers, mud creatures, and leaf mosaics all became representations of the concepts of "spirit" and "belief". The process of play gave the students the freedom to explore, discover and inquire as they

tried to capture the creativity that was unfolding all around them. What was once a silent space filled with feelings of apprehension became a space filled with laughter and sheer excitement. The students spoke of feeling as though they were three or four years old, and loved being allowed to make anything that didn't have to be something out of materials that they hadn't used since they were young children. They were excited by how the mud felt between their fingers, how the smells of moss and soil changed as it dried, and how very difficult it was to get sticks to stand up without nails and string. They spoke of experiencing an internal shift, as though what they were learning came from within and was actively growing and shaping each moment. I extended the hour by another thirty minutes to let their discoveries unfold into deeper felt experiences.

When we finished this exercise we came back together to discuss what had transpired. Much of the student excitement came through the stories that each participant wanted to share. While the initial experience was met with much uncertainty and apprehension, a shift had occurred that brought about a willingness, and almost necessity for each student to share their stories of discovery and exploration. The students described their initial experiences of trying to capture 'spirit' and 'belief' as a product or object grounded in the observational drawing of the landscapes. They then spoke of the shift and realization of becoming part of the discovery and the subjective process. Many students wanted to share how the discovery of the creative process had actually allowed them to feel the concepts of 'spirit' and 'belief'. This process facilitated an awareness of what those concepts looked like. They described wanting to share that feeling with others and in doing so, the images or natural materials that they choose embodied the actual feelings of those words. The leaf embodied life, which became a symbol of the processes involved

in spirit. Although abstract, the message became very clear to all of us, and many of the students felt a transformation within themselves. They physically remained the same, yet something inside them had shifted. They began to see, feel, and experience the natural world in relation to their actions. They became conscious that they were part of the unfolding natural world and that the natural world was not comprised of mere objects.

I asked the students what they thought of the limitations of the natural materials and the transient nature of the projects, knowing that what they had created would return very quickly to the natural systems they had evolved from. They spoke to the recognition of the fragile cycles of growth and decay, as well as to the interconnections each material brought. A stick was not just a stick, but part of a tree that was alive both above and below ground, relying on the water, sun and soil conditions for continued growth. However, not only does the tree rely on these elements to be healthy and thrive, it also creates or gives back to these same elements the necessary components to create a healthy environment for all living things. The leaves, the roots, the branches, the bark -- all of the pieces they used in their creations -- were part of a whole system that gave back as much as it received. The tree became their symbol of reciprocity.

Their focus became capturing reciprocity and creating balance, not just in the physical sense but also in the sensorial sense. The students were able to shift from seeing the natural materials as fragments to an awareness of these materials as part of the whole from which they were derived. They were able to discuss the formal properties and principles of creative design, yet moved quickly to describing evolutionary dependencies they had uncovered in the materials themselves, such as the discovery of the different layers of soil and the organic materials needed to make up the soils' structures.



The students wanted to talk about how nature creates those elements ‘naturally’ or seemingly without effort. Yet they began to realize the complexities and interdependencies involved in the phenomena that surrounded them. The students wondered if perhaps we gain our understandings of concepts of beauty, spirit, belief by trying to mimic what the natural world does instinctively in the phenomenal acts of creation itself. Recognizing these connections, the students then started to question what happens when we as human beings throw this fluid ecosystem out of balance, all for the sake of trying to create manufactured notions of beauty. Our conversation shifted to how and where humankind creates these manufactured notions of beauty, and we questioned the role of parks, zoos, golf courses and “even our own backyards”.

When I asked them to explain further, they stated that once they let themselves hear the materials, they witnessed a freedom in themselves and others. They quit trying to make the materials act the way they wanted them to, and instead allowed the materials to fit together the way they naturally do. One group of students shared their attempts to make branches form a geometric shape. The form kept breaking down, so they decided to follow the pattern of the branches themselves. An organic form quickly took shape and mimicked the feeling they had been trying to create with the original attempt. The difference for them was that the activity felt right rather than forced, and that the materials themselves didn’t fight back. Instead, the materials became what they were destined to become, as did the students.

The students spoke to a feeling of waking up inside, and for the first time since they could remember, they experienced a feeling of intrinsic knowing, as though all of the emergent knowledge they were experiencing was already part of them. The awareness of

this feeling precipitated a freedom that seemed to allow them to go back to a state experienced in childhood. This feeling was described as knowing that anything could stand in as something and something could be anything and neither one of them had to be either. A stick could be a stick, it could be a sword or it could be the line that brought them into a future world. A great example of this freedom occurred when a group of boys decided to place many sticks together to form a sort of maze. They proceeded to place grass-like heads on top of the structure. This brought about varied responses: one student commented that it reminded her of a bunch of impaled heads, another said it felt like a field of flowers, and another said it felt like a drawing made three dimensional. It was something, it was anything, it was neither and it was all.

When our time came to an end, I asked them what, if anything they would take away from the experience. A moment of silence was broken by a single voice. One student stated with such beautiful authority that she believed she could speak for every person present. She explained that creating ‘anything but not something’ was going to be part of her every action, and that this experience had opened her eyes and heart to the world she was part of. She could see clearly for the first time since childhood that the most important part of her day would be to speak from a place of possibility rather than from a place of fear. For her, the abstract notions of daily life were made concrete in these moments. Something within her had awoken, and she knew intrinsically that the environments she interacted with would reflect all of her actions. She wanted to become all that she was capable of becoming, just as the natural materials surrounding her did by their very nature. She spoke to how changed she now was inside, yet nothing on her

outside reflected that internal shift. She spoke to the experience and power of being present, how it freed her from the anxiety of past and future moments.

### **3.3 The Exploration: The Analysis Of The Experience**

My critical analysis of this experience intends to interpret, make meaning and provide connection between the abstract and practical experiences of the lived moments of this work. This analysis examines how the “transformative power” of creative process in learning offers humankind relational connections to and with the natural environment.

In the activities described I witnessed students find comfort in their natural surroundings and become so absorbed in their discoveries that they freed themselves from the habitual constraints of everyday routine. Once in this space of discovery and exploration, the students were able to absorb their lived experiences on the landscape and, through that experience and the use of natural materials, attract the creative energy of the living systems that surround them.

In the beginning of this experience I thought it very important to use the natural materials from the site such as sticks, stones, soil, and leaves as our mediums, and incorporate very common traditional art making materials. I wanted to keep the activities as simple as possible, letting the students feel that they would be capable of taking these activities and doing them on their own with very little material cost. Material costs and availability are often the first misconception when it comes to fostering a creative experience in and outside the educational institution. I also decided that ‘process’ be of foremost importance as a way of shifting the focus from the product so often associated with learning outcomes. The final product of this experience was to be the reflection on

the experience itself. The pieces of paper and the little sculptures were to be secondary to the end result. This experience was about being in the world, awakening the students to the natural environment. Through a series of activities, walks and self-initiated adventures, the students and faculty were asked to remove themselves from their comfortable routines and move into a world of wakefulness. Removing the pressure of producing an end product allowed the students to engage with more flexibility. Often the only pressure that existed came from self-expectations. Exploration was the mission, discovery was the process and inquiry was the product that provided the transformative shift.

As uncertainty in task performance disappeared, a metamorphosis overtook the whole active experience, and layers of doubt and disbelief were shed. These layers of doubt and disbelief stem from the fragmented ways mankind has come to know and engage with our natural environments. The students awoke to a holistic and subjective way of participating in the world. Their shift from wariness and apprehension to self-confidence and exploration became the preliminary evidence of the transformative power of creative process in learning. Their wariness of trying a new activity that wasn't interested in an external concrete end product, and their apprehension to move forward to experiment without external evaluation, evolved through the self-guided exploration of processes of creativity.

In the process of self-guided exploration, an awareness of self begins to emerge. The individual student becomes detached from the group and begins the internal process of being guided by self interested discovery. This discovery permits the participant to connect subjectively with the rocks, logs, grass, water, mud and soil that surround them.

Already aware that they are not to destroy anything alive, they inherently become aware of their presence in the midst of all that exists around them. The destruction and objectification of life external to themselves becomes non-existent. The students' intrinsic or self-guided learning emerges providing permission, at many times only known to the student themselves, for the awareness of self or the potentials of self to become momentarily actualized.

Once a student awakens to their self in relation to the natural environment, they turn outward and look to other students to find and share similarities and differences of their internal experiences. In this context, I observed a student attempting to build a structure using old firewood they had found on site. I watched as this student tried many different ways to build a tower, but could not balance it despite every effort. Several individual students came forward, each offering some kind of suggestion based on the experiences they had just had. One student offered that perhaps the tower could be built horizontally rather than vertically because of the way in which the wood naturally fit together. Another student offered to dig a hole in which the first pieces could be buried to make the whole structure more stable. This group of seven or eight students all came together to problem solve based on their own experiences. In their observations of how the forest was structured, the students designed the tower based on the principles of both aesthetic and environmental design. As a result, the tower was built using the students' shared knowledge of their individual experiences. An extrinsic relational connection had been formed in the discovery of the students' shared energies. The students' experience brought an awareness of the constant process of creativity that surrounded them, looking to the elements of texture, color, line and shape. They filled in the blank spaces with the

design principles of repetition, balance, contrast and unity to bring a further awareness of the concept of the interconnectivity of the forest and its ecosystem. In their creative immersion, some of the students spoke to being able to feel the natural environment as part of their being, as though they too were part of the processes that encompassed them. Other students spoke to how their active engagement in the processes of creativity that surrounded them filled them with new ways to comprehend their lives and their learning more cohesively.

For the student, learning or educational experiences on the landscape such as this are processes of coming to see and feel the self in the midst of the constant creativity. O'Sullivan (1999) states, "the educational process is based on a very basic notion that the world makes sense and that we are involved in both determining and creating that sense" (p. 273). For the student who has undoubtedly been taught that they exist in an objectified, disconnected world, an experience such as this provides an opportunity for the student to connect and feel their own existence in communion with the natural world. The internalization of feeling that brings the world to the present moment invites the student to determine and make sense of that experience. In doing so, the student creates meaning that can potentially lead to a deeper understanding and connection between the self and the environment. Whitehead (1967) speaks to education as being "Life in all its manifestations" (pg.7). He states, "Education is the guidance of the individual towards a comprehension of the art of life; and by art of life I mean the most complete achievement of varied activity expressing the potentialities of that living creature in the face of its actual environment" (p.39). The students are participants, witnesses and masters of a process that is innately in and around each of us. They are able to tap into and

momentarily harness the skill of awakening, the ability to perceive, and the gift of transformation that creates a lived learning experience. Asking the students to actively question their own understandings of how they come to discover, explore, participate, and invent a new world story through a series of process-based activities on the landscape encourages new visions to emerge.

The transformative power of creative process lies in the self-emergent nature of the natural world. Human beings have been part of a creative transformative process for as long as mankind has been part of the planet. The self-actualization of students in learning environments can inspire and result in the re-evaluation of past beliefs. This re-evaluation inspires an emergent story of the universe that offers humankind a relational connection with the natural environment. As Whitehead describes, “the fatal disconnection of subjects ... kills the vitality of our modern curriculum. There is only one subject-matter for education, and that is Life in all its manifestations”

(Whitehead, 1967, p.6)

#### **4. Conclusion**

*“What is the creative act? I feel that when I have communicated an idea in rhythms which are part of our movements on this earth, in textures that embody all the gradations of infinite sensitivity, in sound that shimmers its vibrations in and about me, in colors that express all that is subtle and all that is grandeur across space and the sky as it permeates the heart. I have touched an awareness of ecstasy, which is beyond anything that one can express. I know of the infinite variety that is projected to perfect a creative work of unity.” (Tolces, 1956, p.1)*

This project set out to analyze creative process, transformative power and to explain the core notion of how the transformative power of creative process in learning offers humankind a relational connection with the natural environment. Through sharing how the creative process created a transformative learning experience in my studies, and how

this process continues to inspire me to seek change in current educational models, I realize that the practical implications of advocating for an intensive, multidisciplinary, holistic approach to education is both fascinating and difficult. Although a strategy of bringing together various disciplines feels like the appropriate direction to take to move towards holistic education, many obstacles arise along the way. If given the fundamental theme of “life” in their application, each obstacle can lead to a transformative experience. In the end, the transformative power of creative process in learning can bridge these gaps, and is the essential experience that provides each learner the ability to self-actualize the potentialities that connect him or her to the planetary environment. The transformative power of the creative process in learning inspires students to formulate new relational connections that shift them from the inward awareness of themselves to an outward awareness of community and onward to a relational connection with the universe.

This story concludes in fascination. I have experienced the birth of my fourth child and been an active participant in another transformative process. While he has been disconnected from one natural environment (my womb) he has become connected to another (the planet). In the simultaneous occurrences of his birth and the completion of this project, I have awakened to my role as both a mother and a teacher in my children’s lives. I believe my children will have the opportunity to tell a different story of valuing. Their story is one birthed out of transformation, choice and rooted in the process of creative connectivity. Their story is a story of continuous becoming, the pull of possibility and the creation of a new story of the universe. “Our individual self finds its most complete realization within our family self, our community self, our species self, our earthly self, and eventually our universe self” (Swimme & Berry, 1992, p.268).



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