Transformational Learning and the Outdoor Environment: An Experiential Education Approach

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Abstract

New and innovative educational approaches are an exciting area of study. It is a privilege to engage in research that helps others become self-directed and motivated learners. Interpreting the ideas of Jack Mezirow and Stephen Brookfield, this paper investigates the theories of perspective transformation and critical reflection to assess their contributions toward experiential and environmental education. The intention is to define and explore the field of transformative learning and how it relates to experience-based environmental education and promotes self-directed learning. A specific experiential situation is described and evaluated to determine the usefulness of the theories and to suggest ways to enhance transformative learning through outdoor activities. Important to the discussion will be the influence of nature to enhance transformational learning.
Introduction

My interest in this topic originates from my own new ideas about how to expand the educational experiences of youth and adults through experiential outdoor education activities (hiking, canoeing, adventure activities, challenge courses, new sports and leisure, knowledge of nature). I want a deeper understanding of how learning theory relates to experiential education methods. I believe that dynamic new developments in education can be facilitated by attaching the learner more directly to the very environment that sustains them, motivating them to think more broadly and creatively about learning. Educational settings can be moved to the outdoors more often providing new avenues of educational space for teachers to explore and alleviate the repetition of the classroom. This can be done by using the ideas of transformational learning and experience-based methods.

In my research, the theories of Jack Mezirow and Stephen Brookfield had the most practical and applicable approaches for experiential learning. I intend to use the ideas of these authors to further understand how I can use adult transformative learning theory merged with an experiential education method. The basis of these theories will provide background for fostering new ways of thinking and learning through outdoor experiential education. I also became interested in exploring actual perspective transformation experiences through the stories of people who experienced significant changes in their lives. These examples are crucial to establish the validity of perspective transformation as a
useful approach to adult learning. The two main questions to be explored are: What kinds of outdoor experiential methods can be utilized to foster critical thinking activities and potentially transformative experiences? How and why are people transformed as a result of the outdoor learning environment to arrive at more discerning or renewed perspectives?

The individual’s specific learning style and interests as they relate to daily experiences are especially important to consider since change is likely to occur in areas that matter to the learner and based on the learner’s preferred mode of learning. This approach helps learners to become more aware of how experiences in any given context or situation are affected by assumptions and culturally constructed ways of thinking. When new experiences fail to have immediate meaning, a reflective process is necessary to make sense of new information or ideas. It is my finding that incorporating experiential learning activities within educational systems and everyday life, such as those found in the outdoor environment, helps make sense of new situations by applying critical thinking skills to new and challenging experiences. The result may be a perspective change enabling broader, more discriminating ways of thinking and problem solving, thus helping make sense of daily life experiences. The recommendation is for more types of experiential activities within educational environments as well as within daily life for an increased variety of educational activities to help facilitate transformational change, as an important element of adult development.
The literature review will be defining and exploring the theories of Mezirow and Brookfield as well as investigating more recent research on perspective transformation and critical thinking. The additional comments and opinions of other authors help to clarify the process within this type of learning and suggest how the affective domain (feelings, intuition, emotions) play an important role in deep reflection and understanding of specific life experiences. The discussion then shifts to how experiential and environmental education can be a catalyst to help inspire a transformational change. The last three sections deal directly with the process of perspective transformation and critical thinking, defining and exploring the process to evaluate its potential for transformational learning. The final section explores the area of experiential education and how it can be used to guide learners to not just new and exciting experiences, but gaining a perspective within a context that combines previous experiences and new ones to help the learner gain a more inclusive and well-rounded perspective. A specific learning experience is included to identify how an experiential method can trigger further reflection and a change in approach to education.

This direct experience helped me and the people I worked with gain a better understanding of the intricacies involved with attaching everyday experiences to an educational process. Once the everyday experiences were identified and completed, a reflective process became more relevant and applicable so adaptation was possible. The research was completed to better understand the process of critical thinking and perspective transformation helping
to make relevant the creation of a pedagogy that carefully takes into account the individual needs of the learner and the context in which they are learning.

**Literature Review**

**Defining and Exploring the Field of Transformative Learning**

This review will explore the theories of perspective transformation and critical reflection primarily as expressed by Jack Mezirow and Stephen Brookfield. While Daloz and Freire are important theorists in the area of transformative learning the discussion will be limited to the ideas of Mezirow and Brookfield. The potential for effective teaching methods and examples of transformational learning are most evident within the theoretical framework of Mezirow and Brookfield.

The original development of Mezirow’s theory of perspective transformation (1975) was based on empirical research which provides credibility to his claims of what was missing in adult education namely, meaning. In the original study of women participating in college re-entry programs, he discovered that in order to make sense of new experiences and challenges, a process of transformation in meaning perspectives was necessary (Mezirow 1975). The purpose of transformative learning, then, is for adults to recognize how culturally formed habits and expectations can limit the understanding of new experiences.

Mezirow claims: “There is a need for a learning theory that can explain how adult learners make sense or meaning of their experiences, the nature of the structures that influence the way they construe experience, the dynamics involved in modifying meanings, and the way the structures of meaning
themselves undergo changes when learners find them to be dysfunctional” (1991a, p. xii). The context of his theory was the source of life fulfillment for people as they interpret and explain the experiences in their life (1991a, p. xiii). The purpose of this kind of transformational learning is to gain a broader, more inclusive perspective, accessing other perspectives, and allowing for integration of new experiences with known ones. This process allows a person to become more self aware because they will understand why they attach certain meanings to their reality and how those meaning perspectives are often distorted by cultural assumptions and misunderstood power relationships. The eventual goal is self direction through critical thinking and understanding more fully how interpretation of experience can be flexible and on-going. Mezirow contends that this process of learning is critical for functioning in adulthood.

Mezirow believes that the most important human need is to understand our experiences in order to know how to act effectively. He defines learning as “…using a meaning that we have already made to guide the way we think, act, or feel about what we are currently experiencing” (1991a, p. 10) and “…a process of making a new or revised interpretation of the meaning of an experience” (Mezirow 1990, p. 1). By emphasizing the importance of integrating already learned meaning perspectives and new experiences, he is setting the stage for an inclusive approach respecting all experiences while encouraging a questioning of the reasons why we act or feel a certain way about the experience.
The transformative learning process, according to Mezirow, is “…learning through action [by] deciding to appropriate a different meaning perspective” (1991a, p. 56). It is through discourse or “active dialogue with others to better understand the meaning of an experience” (Mezirow 2000, p. 14) that people may make a transformational change. Familiar experiences based on habits of expectation and new experiences that challenge old meaning perspectives can be better understood when critical reflection is used to interpret experiences.

Brookfield’s adds to Mezirow’s definition when he suggests that a critical thinker needs a kind of educational awareness of the possibility for a perspective transformation: “When we become critical thinkers we develop an awareness of the assumptions under which we, and others, think and act. We learn to pay attention to the context in which our actions and ideas are generated” (Brookfield 1987, p. ix). The basic idea is to call into question the customary meaning perspectives and meaning schemes that make up our interpretation of experiences. Critical thinking becomes most useful as an educational tool in situations of a disorienting dilemma or rather the need for a reinterpretation of a meaning perspective for making sense of a new experience. When located within adult education, critical thinking is viewed as both a facilitated and self-directed activity where learning goes deeper than just applied or technical learning. It is “learning how to change our perspectives, shift our paradigms, and replace one way of interpreting the world by another” (Brookfield 1986, p. 19).

Brookfield places a high level of responsibility on the facilitator when teaching critical thinking methods. If one is to encourage learners to reveal their
assumptions and biases, the facilitator must be prepared to make public their own biases and assumptions to model critical thinking methods and maintain integrity with their students “…in short, an atmosphere in which critical thinking is valued and encouraged” (p. 243). It is also important to take into consideration the long held beliefs of the learner that critical thinking might be rendering irrelevant. To undermine the basic ideas and beliefs that have carried a person through life may result in depression or apathetic inaction. The process of critical thinking must be carefully monitored to avoid fatalistic attitudes toward the possibility for change. Daloz recommends four aspects of a good mentor as engendering trust, issuing a challenge, providing encouragement, and offering a vision. He adds that a mentor is the “embodiment of wisdom, never the source” (Daloz 1986, p. 41). It is important for the teacher to consider the student rather than the stages at which they should be based on the process. “It is the people, not the stages, the moving picture, not the snapshots, that should command our attention” (p. 42).

In more contemporary theorizing, Edward Taylor (2000) emphasizes that perspective transformation goes beyond just rational thinking and involves the “interdependency of critical reflection and affective learning” (p. 301). Feelings and emotions play an integral role in critical thinking and are often necessary to provide the motivation to “reflect deeply”. The skill of processing feelings and emotions while engaging in critical reflection is an important prerequisite for transformative learning (p. 305).
M. Carolyn Clark (1993) also echoes the importance of process in transformational learning when comparing the theoretical contributions of Mezirow, Freire, and Daloz. She emphasizes that since they all situate learning in relation to the interpretation of experience... “The whole concept of learning is expanded here, to include all the ways in which adults revise their understanding of things as they engage life day by day. Learning becomes more inclusive, and more pervasive” (Clarke 1993, p. 53). The learner can relate better to personal experiences and apply or adapt them according to their specific needs or desires for learning. When theory is coupled with experience, it is better understood and more relevant as certain applications of the theory may be viewed as true and others discredited based on personal experience.

**Authentic Activity**

Wilson (1993) mentions the idea of authentic activity where “learning and knowing always be located in the actual situations of their creation and use...” (p. 77). This supports the concept of learning not simply as acquisition of knowledge but a “process of enculturation” where opportunities are given for problem solving, social activity, and direct contact with what is being learned. To experience the very thing one is trying to learn, such as having an automobile engine in front of you to learn the concepts of internal combustion, is much more likely to enhance comprehension, promote questioning, and instigate critical reflection than simply reading or looking at pictures about it. The act of learning is palpable, concrete, contextual, and relevant making learning far more interesting and applicable. The direction of learning taken by someone based on
their own needs and desires for learning rather than someone else’s ideas allows for a more authentic approach to learning providing motivation and satisfaction in learning.

A good definition of authentic activity comes from Lavetta Spyres (2000) stating: “Authentic activity is when a learner solves a problem that is realistic. The learner forms their own meaning not through lectures but through actually thinking through the problems themselves and using their own work knowledge to solve the problem. Authentic activity creates knowledge that is meaningful and deeper than knowledge that is just heard through speeches and lectures” (Lavetta Spyres 2000). The importance of experiencing one’s learning based on a realistic approach of problem solving sensitive to individual needs and interests is evident and results in more meaningful understanding and potentially transforming realizations.

**Self-directed Learning**

The process of self-directed learning defines the purpose of adult education. It allows a person to use their own knowledge, experiences, and intentions for learning to develop a learning plan specific to their needs. The theories of perspective transformation and critical reflection are a means by which a person can be a more self-realized person so that an appropriate direction can be taken. A self-directed learner needs to have a good idea of their situation or context in life, have the ability to assess their learning needs, and direct their learning based on methods and techniques that they can relate to.
Brockett and Hiemstra (1985) emphasize the importance of the individual learner’s needs and learning style when fostering self-directed learning. Additionally, they mention that the importance of the learning process is “at least as important as the outcome” (p. 38). The process of self-directed learning includes the initiation of the learner to diagnose their own learning needs, formulate learning goals, identify resources for learning, select and implement learning strategies, and evaluate learning outcomes (Knowles 1975, p. 18). Mezirow (1981) discusses a type of andragogy that helps learners move toward a self-directed type of education. This includes decreasing dependency on the educator, understanding how to access and use resources for learning, creating learning objectives that relate to the learner’s needs, taking into account the experiences of the learner, recognizing limitations to learning caused by culturally created assumptions, and emphasizing experiential and participative methods (p. 22). A facilitator can become more aware of the learner’s needs recommending activities that best fit their requirements. Introducing outdoor experiential activities connects learners to new ways of thinking and observing the environment by placing them directly in contact with it. The re-connection between human and natural environment promotes holistic ways of thinking and learning providing a unique and fun change from typical educational methods.

**Mezirow’s Theory of Perspective Transformation**

For Jack Mezirow, building from Habermas, there are three domains of learning used to interpret and manipulate the world of experiences. The technical learning domain is “task-oriented” focusing on an “empirical-analytic
model of inquiry” necessary for basic skills and criteria-based learning (Mezirow 1981, p. 18). The social interaction domain focuses on how people interact with others, construct meanings, and negotiate meanings based on how others respond and interact. The purpose of the perspective transformation domain is to identify problems within their real context and to critique established norms and power relationships that may be causing a distortion in meaning. According to Mezirow, it is important for the learner to discover the cultural reasons behind the way they respond to these given experiences and how these reasons affect the way they think and act. Once they have gained this understanding alternative points of view are introduced and an assessment of their existing assumptions is made possible. The challenging question is: How does an adult learn to construe a new or revised interpretation of the meaning of an experience to guide future action from a prior interpretation of an experience?

Making Meaning

In the process of interpreting experiences, Mezirow describes two parts of making meaning. The first part is comprised of meaning schemes. Meaning schemes are - “The particular knowledge, beliefs, value judgments and feelings that become articulated in an interpretation” (1991a, p. 44) and that create “sets of related and habitual expectations” (1990, p. 2). The second part is comprised of meaning perspectives, or the “structure of assumptions within which new experience is assimilated and transformed” (1990, p. 2). So, meaning schemes are particular ways in which meaning perspectives are interpreted and expressed. Meaning perspectives are “acquired in childhood through the
process of socialization” (1990, p. 3) and provide principles such as ideal types, symbolic categories, or “horizons of expectation” for interpreting experiences or new situations (1990, p. 3). Meaning perspectives are like theories or beliefs acquired through socio-cultural accumulation and meaning schemes are the ways these theories or beliefs are expressed. For example, if a person believes women should be the primary caretaker of children (meaning perspective), then they would expect women to stay home with the children instead of working (meaning scheme). Mezirow mentions that: “Transformative learning is learning through action, and the beginning of the action learning process is deciding to appropriate a different meaning perspective” (Mezirow 1991, p. 56).

An excellent example of this is the women’s movement where many women came to challenge assumptions based on “prescribed social norms”. Through learning in support groups and role models, they began to “redefine their lives in their own terms” (Mezirow 1990, p. 3). By understanding meaning, learning, and transformative learning and relating this process to specific situations or contexts, a person can be helped to reflect on their experiences. “Central to the goal of adult education…is the process of helping learners become more aware of the context of their problematic understandings, more critically reflective on the assumptions, engaged in discourse, and taking action on their reflective judgments” (Mezirow 2000, p. 31).

Mezirow’s claim for his theory lies in the apparent “oversight” in adult learning theory where the experiences and contextual references for each individual learner are not taken into account. The acquired experiences and
knowledge within someone’s life defines their learning and meaning making, and according to Mezirow, create “habits of expectation” which need to be transformed during the learning process (Mezirow 1991, p. 4). He mentions that experience extends how certain expectations are viewed or perceived. It is through reflection that one can transform blind acceptance of certain assumptions and overcome barriers to new and creative interpretations.

Within adult learning, this process of reflection is self-directed. This needs to be so because adult learners draw from a variety of life experiences and goals for their particular ways of learning. For appropriate self-direction, Mezirow mentions that the learner must be aware of the constraints of their cultural assumptions on their learning, have access to alternative perspectives, and have mastered the other domains of learning. Competence in social interaction and the skills to manage productive tasks require manipulation of the environment and are necessary prerequisites for self-directed learning activities to be a success (Mezirow, 1981, p. 21).

Mezirow (1981, p. 7) describes three shifts in the psychology of adult learning: Associative Bond Theory or stimulus-response rote learning; Information Processing Theory based on memory sorting and processing within a total package to improve structurally, and Contextual Theories or experience as change and activity based on interpreting contextual experiences. It is through experientially engaging with learning that more profound knowledge of a certain situation can be used to interpret the experience and encourage more direct involvement with one’s own learning.
The dynamics of perspective transformation include a disorienting dilemma or crisis due to fragmentation and disillusionment, self examination, an assessment of internalized role assumptions resulting in feelings of alienation from society, finding and relating to others with similar issues and experiences, investigating new perspectives, building confidence in acting through new perspectives, plans on how to apply new realizations, gaining the education and skills to initiate the new plan, initial try of new ideas and feedback, and reintegration into society based on the new perspective. A severe disorienting dilemma such as divorce, death of a family member, or loss of career expectations would more likely produce a perspective transformation. A sudden insight or change in lifestyle that clearly illuminates the limitations placed on the individual by societal expectations or cultural assumptions may prompt an immediate perspective transformation. More often the movement to a new point of view that initiates personal and social action occurs through a series of transitions which help to make the individual aware of the restraints placed on them by their own internalizing of expected role playing or by rigid societal control.

**Risks of Perspective Transformation**

There is no guarantee of a transformation based solely on awareness of a problem since many obstacles such as compromise, self-deception, escapism, and failure are strong detractors in the effort to become critically self-realized individuals (Mezirow 1990). Changing a meaning perspective can be a challenging and difficult task. The thought of undermining an idea long held is
scary and anxiety-provoking because it puts the learner in a vulnerable position, outside of their comfort zone. Thus, risk-taking plays a factor in self-directed educational pursuits. A guide, mentor, or tutor is valuable during the process of developing a new meaning perspective. While strong importance is attached to identifying with another group or individual’s perspective, simply accepting another’s perspective in an attempt to change is not enough without critically reflecting on the reason we attach certain meanings to our reality. A reciprocal relationship of renewal and renegotiation is needed to constantly assess and integrate one’s own experiences and other’s opinions into a new point of view. “A superior perspective is not only one that is a more inclusive or discriminating experience of integrating but also one that is sufficiently permeable to allow one access to other perspectives. This makes possible movement to still more inclusive and discriminating perspectives” (Mezirow 1981, p. 9).

**Perspective Transformation and Young Adults**

Mezirow admits that his transformation theory is limited by the way it was “formulated by an adult educator for an adult educator” (1991a, p. xii). However, his theory can be applied to young adults and can be relevant when considering programs and activities for children, especially programs that bring about new ways of reflecting and thinking that encourage a broader, more open perspective.

Perspective transformation has been identified as a uniquely adult form of transformational learning since the capacity to be critically self-aware is limited to a more mature ability to assess the effects of socialization on the individual, which children are not usually capable of doing or do not have the experience to
do. Through critical reflexivity, the individual is made aware of how certain cultural myths or role expectations have come to suppress their attachment of meaning to reality resulting in a dilemma or crisis. Once this is realized, other meaning perspectives are introduced to provide new perspectives of reality so a plan can be designed and implemented to set a course of action. New learning must be incorporated into previous experiences towards a goal and method of self-directed learning. “Enhancing the learner’s ability for self direction in learning as a foundation for a distinctive philosophy of adult education has breadth and power. It represents the mode of learning characteristic of adulthood” (Mezirow, 1981, p. 21).

When dealing with young adults or children, the lack of experience may be an advantage since there are fewer culturally created meaning perspectives to block the learning process. New fresh perspectives are gained through direct experience, which can be transformed at the level of the learner based on their individual needs. For example, learning about nature and the outdoor environment can be done through book learning, but when direct exposure to the very elements of nature is achieved, children’s eyes are truly opened and their own interpretations of the connections between humans and the environment can be made. While they may not be able to become critically self-aware individuals yet, the transformation occurs when they are able to compare book knowledge with reality and apply their own ideas and opinions to the observations of others. In my experience, children often take a unique and interesting perspective when observing say, the aspects of a tree. The
seemingly naïve interpretation of a child that a tree represents a body with many arms and legs stretching high into the sky and deep into the ground can be added to the adult perspective that a tree can be made into many types of products. This innocent yet profound perspective, unrealized by adults who tend to attach practical, rather than philosophical meaning to such objects can enhance the overall reflection about a tree and allow for a broader, more inclusive interpretation.

In sum, then, the process of critical reflexivity and the goal of self directed learning inform the claim of an emancipatory type of educational transformation for adult learning within Mezirow’s theory. The learner, with help from others and their own experiences, can experience a freedom from the restraints of societal and cultural assumptions learning new ways of approaching their further education with confidence and freedom. Rigid hegemonic forces have less of a chance to affect their future goals and behaviour based upon their enlightened point of view.

**Brookfield’s Theory of Critical Thinking**

Stephen Brookfield was a student of Jack Mezirow and then a colleague for many years. The influence of Mezirow’s theory of perspective transformation is evident as he makes many references to Mezirow’s work while developing his ideas on critical reflection.

Brookfield does a thorough job of describing the process of critical thinking, the forms it may take among adults, and the advantages and risks of engaging in critically reflective thought and action. First, he posits a definition
and factors of critical thinking. He summarizes critical thinking as a productive and positive activity, as a process not an outcome, occurring within different contexts, initiated by positive or negative events, and involving emotions but operating largely as a rational activity.

**Components of Critical Thinking**

Brookfield describes the components of critical thinking as: identifying and challenging assumptions, challenging the importance of context, imagining and exploring alternatives leading to reflective skepticism (Brookfield 1987, p. 9). The key is a growing awareness of the culturally produced dilemmas, unexpected changes and events of our lives, and the possibilities of overcoming the forces that limit our appreciation of the alternatives that exist. Instead of becoming depressed or feeling trapped by our circumstances with the alienated feeling of being stuck in a situation or context, critical thinking frees us to explore how certain forces are keeping us from realizing our potential or holding us back from using our gifts and own decisions to effect change in our lives.

He describes critical thinking as a democratic activity in that it is what defines the process of democracy, one which puts to the test any claim of a final answer or a totalitarian type of rule. It is not without risk as the realization of living one way while discovering alternative ways may lead to changes that may go against established laws, acceptable social standards, or lead to personal changes that require courage and fortitude. Brookfield says: “If I am open to divergent interpretations of the concept of adulthood, and can treat seriously others’ criticism of these ideas, I am engaged in an active analysis of my own
experience. Such a probing and analysis are at the heart of critical thinking. Again, just because critical thinking is not empirically observable in every adult does not mean we should not strive to develop this capacity” (Brookfield 1987, p. 41).

A key part of his advocating for critical thinking is the importance of coupling collective action to critical thinking. Connecting private lives to public issues allows for an opening for an adult who may be feeling helpless under the weight of government policies or societal prejudices to make their voice matter among many. Connecting their anxieties to broader social issues gives space to contemplate how one may assert their point of view into a solution to their problem rather than feel helpless in the face of societal issues.

Brookfield describes three important aspects of critical thinking as “…recognizing the assumptions underlying our beliefs”, giving justifications for our actions, and most importantly, “… judg[ing] the rationality of these justifications…by comparing them with a range of varying interpretations and perspectives” (Brookfield 1987, p. 13). For instance, critical thinking can be recognized when teachers start to question didactic teaching methods as suitable for all learners or when citizens question political rhetoric that defines one race as good and another as evil, or when workers understand that “normal” working procedures reflect the ideas and interests of the present CEO of their company. Critical thinking exposes limited ways of thinking and fosters broader, more open, contextual ways of thinking. According to Brookfield, placing one’s situation in a broader context so that it relates to wider social forces is central to critical
thinking (p. 62). This would imply that encouraging collective social action, especially among educators, therapists, and counselors who foster critical thinking, should be made accessible since there is an important connection between this action and changing individual situations.

**Teaching Critical Thinking**

Due to the importance of helping others to understand their increasingly complex world and to encourage relevant social action, teaching others how to use critical reflection skills is an important and worthwhile process. In his book *Becoming a critically reflective teacher* Brookfield (1995) describes four important “lenses” which can be used by teachers to view the methods most successful in initiating and encouraging critical reflection. First, our autobiographies as teachers and learners provide a window into our particular way of understanding our world. The personal experiences, learning situations, opinions and beliefs held by an individual provides an interesting portal through which one can understand the perspectives and meaning structures under which one operates. These formative experiences help to provide a foundation for the understanding of an individual way of thinking and allow for comparisons with others, discover areas of strong commitment to certain ideas, and leave room for the addition of alternative approaches enhancing new ideas and perspectives. Methods for personal self-reflection using autobiography include teaching logs, learning audits, role model profiles, videotaping, best/worst experiences matrices, and metaphor analysis. While these personal self-reflections may have value, personal analysis implies certain risks such as distortion or denial of an
experience to enhance self-image or the pitfalls of being trapped by one’s own culturally produced meaning schemes and perspectives never escaping the inherited limitations of that perspective.

Second, it is important to see ourselves through the eyes of our students in order to better understand the diversity of meanings construed through our words and actions. Investigating how our words and actions are being understood or interpreted help to avoid misunderstandings, encourage open discussion, develop trust, and models self-reflection among students. It is difficult to put into effect proper teaching methods unless an understanding of how the student is experiencing the learning is determined. Great care must be taken to keep anonymous the opinions of students so honest, helpful critiques are produced.

Third, accessing the experiences of other colleagues and teachers helps to reinforce teaching methods being used, give new ideas and perspectives, and provide a base for critically assessing new ideas and methodologies. By checking in with others in the field of education, a broader knowledge on the theories of practice can be gained as well as providing an emotional anchor when it is realized that others deal with similar problems and dilemmas in their teaching journey.

The fourth lens used by educators to encourage critical reflection is investigating the theoretical literature relating to the particular issue or problem encountered. This often relieves the person by realizing their problem is not self-produced, but has wider societal causes discovered by others who may offer
different solutions or approaches to a similar problem. Instead of criticizing themselves, teachers become aware of the link between “their private troubles and broader political processes” (Brookfield 1995, p. 37).

Brookfield (1986) describes four important points when planning programs for adult education. First, programs should be based on learners’ “characteristics” and encourage open dialogue. When learners have the opportunity to be involved in programming, aims, and methods of learning a more meaningful learning environment exists which is encouraging and motivational for the learner. Second, planning programs based on context is “crucial”. Carefully planned programs must take into account the contexts existing within any situation. Experiential learning where direct involvement with the learning process by “doing” the learning through direct experience or specific manipulation allows room for context and places emphasis on learner interests and objectives for learning. This leads directly to the third important point for program planners, encouraging “adaptive, improvisational” activities that allow for context to be a factor. Altering programs or methods based on learner needs makes the learning more relevant and contextually specific improving the likelihood of important learning situations. Finally, recognizing the “multiplicity” of activities available for suitable program development allows for a greater awareness of new learning methods which may be beneficial to new learners (Brookfield 1986, pgs. 258-259).

Critical Thinking and Environmental Education
Edmund O’Sullivan (1999) despairs that the movement of modern education has gone from direct contact with the environment to a curriculum of information transfer. The focus on knowledge has become “mechanistic” designed for tools and tasks where we have developed only our “instrumental consciousness” rather than gaining wisdom and perspective from the natural world. According to O’Sullivan, we have reduced our experiences of the world by finding value only in what can be produced for profit by our specialty skills or what can be used from the environment for “progress” of the economy. By doing this we minimize ourselves and the environment. He calls for a renewal of the value of life, especially the spiritual value, and places more emphasis on the importance of the connection between humans and the environment in a cosmological context (O’Sullivan 2004, p. 12).

O’Sullivan and Marilyn Taylor (2004) discuss aspects of learning that can lead to a transformation of perspective about the human-environment relation and the value of developing an ecological consciousness. “We must be gripped by the inherent worth of ourselves, of others, and of our world in order to sustain our commitment to what is likely to be a very long journey out of the wasteland. Faith, not knowledge will be the source of renewing energy” (O’Sullivan & Taylor 2004, p. 12).

This kind of faith appears to be eroded by dependency on technology and the lack of spiritual experiences within the typical daily life of a person. The value of imagination, appreciation of the cycle of life represented by nature, and the special place of humanity in the unfolding of creation must be emphasized and
experienced in order to re-capture the wonders and mysteries of life. Simply
using basic skills, pre-packaged knowledge, and viewing the environment as a
commodity de-values the reason for living since it minimizes the amazing
potential of humans and reduces the importance of taking care of the
environment.

Although these suggestions are meant to relate to adult education, they
could be applied to the education of young adults and children also. The need
for more adaptive context-related programs recognizing the needs, strengths,
and weaknesses of the student must be fostered within all areas of education.
Especially apparent is the need for innovative programs that bring students in
touch with the natural world through outdoor experiential type of activities.

David Orr reflects on the innate connection between humanity and nature:
“Elemental things like flowing water, wind, trees, clouds, rain, mist, mountains,
landscape, animals, changing seasons, the night sky, and the mysteries of the
life cycle gave birth to thought and language” (Orr 2004). He claims “…it is not
possible to unravel natural diversity without undermining human intelligence as
well” (p.141).

Probably the most important reason for many to experience a perspective
transformation and to undertake activities to critically reflect is to establish a re-
connection with what has always sustained them, the very natural environment
so long taken for granted, but for some, forgotten about. Louv (2005) discusses
an “eighth intelligence” called naturalist intelligence, at first disregarded by those
focusing only on that which comprises the mind and body or relates only to an
economic or social type of intelligence. He claims “…the impact of nature experience on early childhood development is, in terms of neuroscience, understudied” (p. 72). “…nature through the senses is simply a way to learn, to pay attention. And paying attention is easier when you’re actually doing something, rather than only considering how it might be done” (p. 78).

Studies on Environmental Education (EE) by Ernst (2007) focus on attempting to make environmental education an integral part of the curriculum in schools by “…expanding the traditional role of EE in professional development to incorporate efforts to help teachers view EE as a philosophy rather than a method or content area” (Ernst 2007, p. 29). A thorough knowledge of the connection between the environmental-human relationships can lead to new ideas for outdoor and experiential education. These links between environment and human interaction provides an opportunity to develop a useful pedagogy that brings humans and the environment together. The intent is to encourage a philosophical connection and create awareness of the important links between humans and the environment in order to transform traditional environmental educational approaches.

**Outdoor and Experiential Education**

It is the opinion of this writer that the connection or re-connection to nature and outdoor activities is a kind of remedy for what ails much of society. For those who have fallen victim to using technology as a dependent source of life or
for those who fall to depression from conforming to an economic system intent on
un-ending cycles defined as “progress” not offering any real satisfaction or for
those who feel disconnected from that which sustains them, outdoor activities
and a re-establishment of the knowledge of the cycle of life is a way that would
provide a transforming experience. A critical look at the way one lives life is
necessary, however, and to question the way one lives, especially for those who
cling to long established assumptions and pre-suppositions, can be an
unnerving, but necessary experience.

**Experiential Education and the Natural Environment**

The Brain Compatible Approach used by Roberts (2002) helps to clarify
why experiential methods work well for learning by describing how the brain
tends towards pattern and “meaning-making”, processes multiple forms of
information concurrently, and can make effective use of emotion, novelty, and
choice. This reinforces the use of challenge, social interaction, feedback, active
participation, reflection, and synthesis in experiential education (Roberts 2002).

While relating experiential methods to outdoor education in the Outward Bound
education has increasingly advocated the use of a more holistic approach”
(Martin, Leberman, and Neill 2002, p.196). The development of an approach
called “dramaturgy” was developed for a more holistic approach where
“...participants can be challenged and moved out of their comfort zones... by
integrating a range of social, creative, and emotional/reflection activities” (p.197).

The intention of using these new methods was to add to the experience of
participants in their program giving researchers a clearer understanding how experiential activities stimulates the mind as well as the body.

Richard Louv (2005) describes the value of a return to the elements of the natural environment, especially for children. He emphasizes that parents who wish to reach their children and allow their imaginations and creativity to flourish should expose them to new ideas and technologies, but not to the exclusion of the natural world (Louv 2005, p. 97). If children do not find wonder, mystery, and fascination with the natural environment, they lose the connection with the very elements of nature that sustain them and risk falling into the trap of the human-made world of shopping malls, Internet, and concrete jungles. “Nature represents the young with something so much greater than they are; it offers an environment where they can easily contemplate infinity and eternity…Immersion in the natural world cuts to the chase, exposes the young directly and immediately to the very elements from which humans evolved: earth, water, air and other living kin, large and small” (Louv 2005, p. 97). Where young people and adults have been cooped up indoors disconnected to the trees, the water, the wildlife, the peace and quiet of sunrise and sunset there is almost a fear of nature discouraging direct application of human and environment.

When relating nature experiences directly to camps Louv mentions: “Clearly there’s more to the camping experience than tents [or cabins] and bug bites. The nature experience at these camps could be lost if nature camps allow their mission to become diluted, if they attempt to please everyone all the time. The great worth of outdoor education programs is their focus on the elements
that have always united humankind: driving rain, hard wind, warm sun, forests
deep and dark – and the awe and amazement that our earth inspires, especially
in our formative years” (p. 224). Studies done on the therapeutic value of nature
experiences and outdoor education programs has consistently reported
participants making gains in self-esteem, leadership, academics, personality, and
interpersonal relations (Hattie et al, 1997). In a review for the Clearinghouse on
Rural Education and Small Schools, Dene S. Berman and Jennifer Davids-
Berman report that these changes over time last longer than changes generated
in more traditional education programs (Louv 2005, p. 225).

This type of re-introduction necessarily involves a perspective
transformation that can be achieved through the process of critical reflection.
The dissatisfaction of many with throw-away consumerism, the buffeting of
unending business cycles, and the drudgery of everyday working life has
produced a profound sense of disconnection. It has also led to a movement of
re-discovery and attention to the natural world. It is like a recapturing of time, a
rediscovery of roots, and a spiritual renewal providing internal self-satisfaction
beyond monetary gain and an appreciation for the “imperfect perfect world of
nature” (Louv 2005, p. 96).

Nature is imperfect, from a human point-of-view, because of its mysteries
and the inability of humans to explain it all. It is perfect in that it is exactly where
it needs to be and represents a perfect creative balance. If ignored, people are
giving up the opportunity to be amazed and missing the example of perfection so
sought after by many trying to find their place in the world or seek a renewal of
the soul. The dilemma for most is to balance a human-made world without sacrificing the natural one. Nature education and a scientific study proving the importance of nature or warnings to avoid any more degradation is not enough. The re-connection must take place through experiential means, direct contact, and experiences with natural elements.

**Applying the Perspective Transformation Literature to Outdoor Education for Young Adults**

Both Mezirow and Brookfield advocate for a more enlightened view of the value of experiences for learning. More direct contact with the learning process and more freedom for the learner to self-direct their learning based on experiences is a step in the right direction. Once the process for stimulating a perspective transformation is known and the steps taken to enact critical reflection is understood, the concepts reported by the theories can be put into action. Purposeful time and place are also important parts of the process where learners can find their own way to stimulate reflection and come to a new perspective which is more spiritually and academically satisfying. As an example of such a transformation, the experiences of operating a wilderness camp for children will be included in this discussion. These experiences, though not formally recorded as data, provide a good background to the possibilities of using the processes of perspective transformation and critical reflection to arrive at a renewed philosophical and spiritual position regarding learning and education.

**Description and Analysis of My Facilitator Experience**
Between May and August, 2009, I was able to work as camp director for a children’s wilderness camp in Enderby, BC. Most prominent in my observations were the reactions of children and the young adult staff to working and living in an outdoor environment. While many came to camp for various reasons, most of their expected results about being at camp were replaced by an experience quite different than their daily lives. Camp registrants and staff were not allowed to use electronic devices such as gaming or listening devices and instead were encouraged to listen, see, smell, and touch the natural environment. Activities that took them out of their comfort zones allowed people to practice their imaginations and courage. For some, going on a nature hike to identify plants, wildlife, walk through a forest and notice the sounds of the forest and river changed their way of thinking about the environment.

Instead of time being taken away from them to perform a task or gather information or be entertained, time was given to them by nature to observe, slow down, appreciate a connection otherwise unknown or forgotten about. For others, climbing a wall or shooting an arrow or using team work to climb through a rope spider web challenged them to think more broadly and inclusively rather than simply satisfying their desires or accessing the latest thrill by machine.

For the young adults working at the camp being paid rather meager wages to present the program, the process of working closely with children in an outdoor setting was more than a job or something to do. They were able to directly involve themselves in something bigger than simply being a cog in the economic wheel. A spiritual satisfaction and feelings of well-being accompanied their daily
work along with a connection to nature that living and surviving outdoors can only provide. When campers were taken on out trips by canoe (one day/night to four days and nights) many of the means of survival and cooperation were re-introduced to those so used to a fabricated, secure existence. Selfishness and individual achievement were replaced by caring and community-mindedness while an amazement and wonder of nature were observed from simple, but keen observations of the environment around them. Campers were heard discussing how the waves on the water moved, the flight patterns of birds, the jumping of fish, and channels made by mountain streams while propelling themselves across a lake by canoe. Preparing their own meals and being responsible for their own gear was a new experience for many and when the week was over, feelings of connectedness and rejuvenation were communicated through evaluations and verbal reinforcement. As Hill and Johnston (2003) observe: “…taking our teaching outdoors and letting nature in [creates] opportunities for students to explore environmental issues of concern to them and relating them to their lives (Hill & Johnston 2003, pgs. 24-25). Most campers felt closeness to nature because they lived in it and with it for days at a time.

If this can be accomplished in so short a time, the possibilities of integrating such activities into the regular curriculum of schools seem to make sense. “Humans make their world by learning and participating in its being. Their ideas and theories are grounded in the life-world, emerging from experience and ritual (Clover 2003, p. 11). If students are given the opportunity to experience their education through outdoor activities and
methods, the potential for a trigger of a perspective transformation and the doors of critical thinking are opened. Where outdoor activities and studies of nature occur, a more holistic approach exists where the spirit as well as the mind is stimulated. When spirituality is included in the learning process, people come to a more authentic view of themselves. Tisdale and Tolliver explain: “…authenticity in this sense refers to the notion that one is operating more from an identity defined by one’s own self rather than by others’ expectations. Reclaiming one’s cultural, gender, and other aspects of identity is part of moving toward this greater authenticity. A key point here is that spirituality is about moving toward this greater sense of one’s deepest spirit, or more authentic identity (Tisdale & Toliver 2003. Emphasis kept). This implies both a personal and individual change through self-directedness along with equipping people for social action through perspective taking and critical thought. The call is not simply for a replacement of educative opportunities, but a return to that which is inclusive of a more holistic approach that includes the mind, body, and soul when pursuing a transformation in perspective.

Theorizing the Camp Experience

To better facilitate the process of critical reflection and encourage a perspective transformation through outdoor experiences it will be important to identify the assumptions that people have about nature. Examples of these assumptions include people’s attitudes that being out in nature is time consuming instead of time receiving. Also, attitudes that reflect the opinion that the outdoors is a superfluous leisure activity instead of an investment in health and spiritual
wellness miss the point about the potential for transformative experiences. Most importantly, it will be necessary to limit ideas that nature is simply for us to use for commodities and economic progress. An intimate connection which requires actually being in the midst of a forest, climbing a mountain on a game trail, or paddling a canoe across a lake will help provide context and situation for those who may otherwise have a superficial view of the outdoors. I have witnessed many young people protest at having to go on a nature hike and then say it was their favourite experience at camp. Once exposed to the raw natural environment it is hard to dismiss the draw of it. Once the sheer awe of witnessing a thunderstorm or to hear the eerie howl of a wolf is experienced, the imagination is stimulated to explore other ways nature can be instructive rather than adhering to benign assumptions about it. The present educational system needs to get students out of the classroom more often and expose them to the very natural elements to which we all have a connection.

I believe providing activities that expose people to the outdoors give them a type of renewal of mind. The mind becomes more open to assessing the limitations put on it by cultural assumptions and habits. Nature allows the mind to be quiet, to process, to slow down in order to make sense of the myriad of images and ideas presented to it each day. When a re-connection is made between the very elements of existence and the human mind, a new critically reflective perspective can be reached. Brookfield’s suggestion to compare varying ideas and perspectives to come to a more rational decision is important when considering the impact of nature on our lives. The challenge is to include
the natural environment within the transformational learning framework. Mezirow describes it as developing a new meaning perspective, one which is more conducive to our context and circumstances. This can be accomplished by making time for outdoor experiences, recognizing the need for the mind to have new and different experiences to help make sense of the world. It is not difficult and quite cost-effective to take advantage of the many opportunities for outdoor environmental education.

The wilderness camp described in this paper is one example of providing specific educational approaches to enhance a broader perspective. I was able to apply reflective activities with the staff and the children of the camp to help them become more critically reflective thinkers. The most prominent way was to expose them to nature itself. We went on long hikes stopping to reflect quietly by a slow flowing river. We listened, looked, touched, and smelled nature, making comparisons with our own lives and using metaphors to describe what we were feeling. We let nature show us what was so amazing about life from the birth of wild flowers to the death of a moose rotting on the trail. There is nothing like a dose of reality to provide perspective and context to one’s own existence.

The facilitator who wishes to encourage critical thinking and perspective transformation should consider using an outdoor experience such as hiking, canoeing, camping, or bicycling to provide learners with an additional way to access experiences that may lead to a transformation of perspective. The essential element in using outdoor experiences to enhance critical thinking is promoting the stimulation of the mind, soul, and body. The school, instructor, or
teacher who incorporates experiential outdoor activities into their curriculum will
spawn a new generation of imaginative perspective-takers and critical thinkers.

Conclusion

Changing the meaning of an experience to arrive at a more discriminating
and broad approach to learning can be stimulated by outdoor and experiential
education. The example of summer camp, a program popular for its fun and
relevant for its spiritual value, is one way to stimulate this process. Speaking for
myself and my staff, I can say we have witnessed in only a few short months,
many young people challenging themselves, trying something new, feeling
peaceful, feeling relieved at not being able to listen to their MP3 players or
playing with gaming devices that so often control their time rather than giving
time to them for the sheer purpose of well-being and a re-connection to the web
of life. The experience has also instilled a message of critically reflecting on what
is important in life, a holistic approach which includes an environmental
perspective. The re-connection to nature as transformative learning must be
consistently applied in schools as well. Efforts by teachers to use more
experiential methods in their learning programs will stimulate more interest in
learning and provide access to a new (perhaps forgotten) area of study. While
the theories described in this paper relate to adult education, the ideas also apply
to teaching young students sorely in need of alternative approaches to education.
It is my dream to apply these theories in an experiential school that uses the
knowledge gained by past educational approaches in combination with
transformative learning, a re-connection to nature, and a spiritual emphasis missing within our institutions of learning.

**Works Cited**


