EDUCATION FOR CONNECTION:

BEYOND LINEAR LEARNING

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ABSTRACT

In our current education system learning is organized as a series of sequential steps and the curriculum is constituted by a set of independent objects. Here students are not encouraged to make connections between subjects or between the subjects and their own personal lives. In this positivistic view of reality teaching is reduced to technique. This thesis is a reflection on the nature and importance of a more holistic and interconnected education. Using the concept of "non-linear learning" as an organizing principle, it outlines the various components of an alternative paradigm.

RESUME

Notre système éducatif tel qu'il existe aujourd'hui est structuré autour d'étapes successives d'apprentissage, et le curriculum se compose d'entités indépendantes les unes des autres. On n' encourage pas les étudiants à créer des connections entre ces sujets, ou faire le lien avec leur propre vie. Dans cette vision positiviste de la réalité, l'enseignement se réduit à une technique. Cette thèse est une réflexion sur la nature et l'importance d'un enseignement holistique et interconnecté. Utilisant le concept de « l'apprentissage non-linéaire » comme principe organisateur, elle définit les différentes parties d'un paradigme qui serait une alternative au système éducatif en vigueur.

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Introduction

Good teachers possess a capacity for connectedness. They are able to weave a complex web of connections among themselves, their subjects, and their students so that students can learn to weave a world for themselves. The methods used by these weavers vary widely: lectures, Socratic dialogues, laboratory experiments, collaborative problem solving, creative chaos. The connections made by good teachers are held not in their methods but in their hearts-- meaning heart in its ancient sense, as the place where intellect and emotion and spirit and will converge in the human self.

Parker Palmer

1.1   Context and problem: Methodological Reductionism

Palmer summarizes, for me, what it means to educate and be educated, that is, what it means to educate a whole person, an education that attempts to connect body, mind and spirit. My interest in holism and non-linear learning began several years ago upon completing a student teaching practicum in Alberta. I found the experience of being back in the school system rather discouraging. It seemed that the students were in two separate modes of being. Either they were full of vitality, as they interacted with each other in the hallways, or within minutes of entering a classroom, they would look bored as they turned to chapter twelve. As a student once myself, I saw the familiarity in it. But this

time, from a teacher's perspective, I found their behavior rather disconcerting. It was as if class time was a form of punishment. I often wondered to myself if this is what it means to really educate?

I also found that the students would become increasingly more alert and interested when I would sway off topic. I had the impression that it was a way for them to be engaged in anything but the topic at hand. In speaking more with the students about this, I learned that a majority of them were, more often than not, disinterested in the curriculum. Instead they seemed much more interested in exploring and expressing the creative realm of their imagination. These interests included topics such as music, song writing, music videos, poetry and movies. Essentially, anything that involved a story or a plotline would hold their attention. Back then I wondered if they were just lazy. Now I am increasingly convinced that these narrative forms guided their curiosity and enhanced their quest for meaning. I continue to ask myself why this separation between learning and meaning is so pervasive.

Children are naturally curious about the world. They often feel compelled to follow their intuitions. Yet often, during the conventional education process, we find this impulse reduced and its value diminished. Sam Keen (1970) describes this well in "Education for Serendipity." He recalls how, in first grade, he was punished for gazing at a warbler out of the school window. Here he learned that novelty was regarded as a threat and that "private enthusiasm must be divorced from the educational task" (p. 39). Now, looking back on his childhood, Keen believes the exact opposite; that enthusiasm must be rekindled and that

education must "recover the personalistic (as opposed to the mere humanistic dimensions of education) to educate for identity and wholeness" (p. 42-43). Keen writes that, "if education neglects the intimate, the proximate, the sensuous, the autobiographical, and the personal it fails in its creative task and becomes only conservative, or perhaps reactionary". Keen writes that, "to keep a proper balance between conservation and revolution, education must deal with the intimate roots in the experience of creativity" (p. 41).

To my surprise, the transition back to school, during my practicum, was a little more challenging than I had anticipated. Not within the actual course work, but in relation to my own teaching philosophy, at a vocational high school, where the majority of students were from immigrant and working class families, with special needs. It was apparent whenever I would engage the students in learning something new. They would say to me "didn't my teacher tell you that I'm a slow learner"? And I thought to myself, "How limiting is this belief?" "What does it mean to "learn"? What could I have said to this student that would have made a difference in her own identity as a learner and as a valued person in our society"?

Our current education system does not consider the dimensions of the human experience that connect the personal, imaginative, and creative aspects of our being. Rather, it fosters an identity as "knower"; that is, it accentuates the acquisition of knowledge about the world while ignoring our participation in it (Palmer, 1998). Our educational system is still deeply rooted in the positivist paradigm, which sees reality as being objective and separate from ourselves (Maykut & Morehouse, 1994). This view fails to recognize how we

live in a global village.

Science and technology have advanced significantly with time, yet the education system continues to operate in a systematic linear way. The practice of education has yet to incorporate ideas from the new sciences of complexity to include uncertainty, ambiguity, open systems, process and transformation (Doll, 1993). We are still focused on preparing students to earn a living at the expense of preparing them to create a life. It has yet to move towards a holistic curriculum that emphasizes connection, relatedness, and the integration of human experiences to a larger whole (Capra, 1996; Golf, 1999).

The assumption of human nature as being separate began during the Newtonian science era and has shaped our current perspectives. The methodology of science is primarily analytical. In order to better understand the complexities of nature, such as knowledge itself, it must be broken down into the simplest parts. Once these parts have been comprehended, then, using logical, sequential steps, they can be reassembled into the whole. Facts are considered to be building blocks of knowledge of which ideas, concepts, and knowledge can be created (Golf, 1999). In the following passage Clark (1997) sums up the ideology of the mechanistic worldview:

Education, concepts like knowledge, intelligence, thinking, and learning

were defined in quantifiable terms designed to satisfy the empirical

requirements of a culture firmly committed to the technological

worldview. Knowledge was reduced to accumulations of facts; intelligence was defined as fixed mathematically measurable capacity for linear, sequential, verbal, and mathematical abilities; thinking was considered to be the function of an identifiable set of discrete cognitive tools, eg. Bloom's Taxonomy, and learning was universally thought of in terms of memory and recall (p. 38).

Although science and technology have provided significant contributions to search for understandings of the physical world, its methodological frameworks fall short in their attempts to deal with the social functions of education. After working extensively with Aboriginal students, Stringer (1993) concluded that the current educational pedagogy is not effective and has little positive impact on their learning. In fact, he believed that "the processes of research and development work were fundamentally flawed; that they reinforced a social system that maintained Aboriginal people in disempowered, dependent, and impoverished circumstances" (p. 141). Stringer focuses on a practical and socially responsive educational research that includes actively engaging in "the many worlds of meaning that are a concomitant part of every social, cultural, and educational setting" (p 160). In other words, Stringer found that real learning was non-linear. He found that dialogue allows students to explore other ways of seeing their world and of understanding their own life worlds.

1.2   THE DOMINANT MYTH

As human beings we are inclined to create narratives or myths that give meaning to our existence. Here "myth" is what Keen (1973) describes as

> a set of stories that explain why things are the way they are, it creates
>
> consensus, sanctifies the social order, and gives the individual an
>
> authorized map of the path of life. A myth creates the plotline that
>
> organizes the diverse experiences of a person or a community into a single
>
> story (p, xiii).

There are different types of myths such as personal, familial, communal, and even societal. According to Keen (1998) and Postman (1995), some myths serve us well while others need to be revised and sometimes even abandoned. For Postman, one myth that serves poorly is what he refers to as the "god economic utility". Our society is conditioned by the "narrative of economic utility" into believing that the primary goal of education is to train students solely for employment in the economic market. According to Postman, this myth does not have sufficient breath to really inspire learners. Schooling has reached a point where students lack motivation and teachers are powerless to regain authority because people are loosing "faith" in the myth of economic utility. Here schooling is one-dimensional. It tells the students that: "if you pay attention in school, and do your homework, and score well on tests, and behave yourself, you will be rewarded by a well-paying job when you are done" (p. 27).

Preparing learning only in terms of getting a well paying job in the future can be ultimately self-defeating. It is very difficult to predict the future and workers are increasingly called to adapt to a rapidly changing world. This kind of education leaves learners unprepared to re-invent their own futures. With the recent trend toward "downsizing" a market based education leaves learners unequipped with the skills to reinvent their own futures. It is no wonder why self help books and seminars are currently ever so popular in our society. People are searching for something more in their lives, asking questions like: "What is the meaning of my life? Who am I? Where do I come from? Where am I going?" Perhaps they are seeking to discover their own personal myths; a chance to reinvent their own myths, different from the script authored by family, community, or society (Keen, 1989). From this perspective education will never really be re-formed unless it includes a more holistic curriculum, one that enriches a students' sense of purpose for learning. Education needs a new myth that inspires. As Postman (1995) writes:

> Any education that is mainly about economic utility is far too limited to be useful, and, in any case, so diminishes the world that it mocks one's humanity. At the very least, it diminishes the idea of what a good learner is. (p. 31)

In the next section, I re-evaluate my own experience as a learner in the "narrative of economic utility" and how that has shaped my personal myth as a learner.

1.3   SITUATING MYSELF

As I began to re-examine my own early schooling, I concluded that, as an immigrant child, I had "fallen through the cracks." I was a "misfit" in the pedagogical formula of formal education. I clearly did not fit in the conventional linear paradigm. I could not relate to a curriculum that measures success and worth in terms career path. The school, in my assessment, failed in its responsibility to educate.

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I recall my own experience of being "the new kid in school" to be quite a cultural shock. As a child, I remember being very curious and wanting to explore the world around me. In my native land, I grew up in a small, medieval town in northern Italy, nestled in the mountains near the Austrian boarder. My fond memories of playing and being surrounded by friendly faces, where everyone is known on a first name basis, fostered a feeling of safety and conjured a sense of connection and community. Trust was evident in many ways: for example, leaving doors unlocked, or receiving free candy bars from the owner of the corner store.

In Canada, I found myself immersed in a culture different from my own, having to adjust in ways that I was not accustomed to. There was the language barrier. I was not able to express myself or relate to others. Even with my lack of communication skills, tests scores did reveal that the Italian school system was more advanced in mathematics and handwriting skills than of the Canadian grade level 3. I found myself bored and often daydreaming, making it difficult to keep an interest in school. During math and spelling

subjects, I remember being sent to a reading resource room to learn English. It was a time of pre E.S.L instruction, I recall feeling a sense of being different from the other students, and became shy and withdrawn. My subjective world was shrinking and so was the thrill of wonder. The experience of being alive and engaged with the world seemed separate from the educational task. Instead my schooling became about the objective reality of knowledge. I was trained to accumulate facts and evaluation relied solely on memory and recall.

A few years later, in sixth grade, my teacher explained to me that because of my lack of required skills, I would have to repeat that grade. I was horrified at the thought of being left behind while the rest of my classmates proceeded to the next level. I remember feeling not good enough and became increasingly frustrated and hopeless at the thought of my fate being chosen for me. I recall begging to be placed at the next grade with my fellow classmates, but I was discouraged from that and was told my only option for that would be to be placed (with a parental consent) in a L.A.P program. Not fully understanding of what this new program actually meant, I asked my mother to authorize the letter in order to proceed to the next level. It wasn't until the next fall and a few weeks into the L.A.P program, made up of 80% Native students, when I realized that I had been placed into a slow learners class. The meaning and labelling that was associated with that program could not prepare me for accomplishment in a program that fostered playing as a means of being occupied until reaching sixteen, the legal age for drop outs.

As a graduate student looking back on my previous years of schooling, I can now honestly say that the experience of being labelled a "slow learner" was determinant in

shaping my identity as a learner. This has had an enormous impact on my past and future career paths. For example, I remember a time when I was choosing high school courses with a school counsellor. She gave me the choice between two vocational courses, either typing or beauty culture. She asked, "Would you rather be a secretary or a hairdresser?" I replied that I wanted to go to university and she gently reminded me that because of my "learning style" I would not have the required skills to enter into the matriculation curriculum that would ensure my entrance into University. If this were the truth about me, I would not be typing these words today. I would certainly not be enrolled in a Masters Degree program. I have come a long way since then, but not without some difficulty. Perhaps this has inspired my interest in the study of education. At the undergraduate level however, I could not find topics related to my interests. Instead, I discovered that the majority of classes dealt more with methods of teaching rather than the process of learning. It was only at the graduate level, that I discovered that other ways of seeing were possible.

During my research, I came across The Myers- Briggs Type Indicator test that gave me insight into my personality and learning style. According to this report, I am an I.N.F.P (Introvert, Intuitive, Feeling, and Perceiving). This means that my mental process is primarily that of *feeling* (inner world of ideas) and guided by my second process, *intuition.* INFP's are described as sensitive, idealistic people, who strive for inner harmony. They tend to be curious about possibilities and enjoy all sorts of creative endeavours. INFP's are also described as often being insightful and original thinkers who enjoy using their imagination to consider new ways of doing things. Ironically, I discovered that those very things that make me whole are in opposition to the dominant positivist curriculum. Palmer (1998)

suggests that "we must find an approach to teaching that respects the diversity of teachers, subjects, (and students) which methodological reductionism fails to do" (p.12).

In this thesis, I will explore Palmer's notion of the subjective landscape in education. In particular, I look at the connection between one's identity in conjunction with Postman and Keen's views of personal myth by looking at how engaging the imagination through narratives, and exploring our personal myths, plays an important role in educating towards identity and wholeness.

In Chapter two, I will explore the idea of a non- linear approach to learning and discuss its components. I consider a learning experience that includes the personal, imaginative and creative aspects of our being, particularly through the works of Palmer, Keen, and Postman. Here I examine how narratives and personal myths play an important role in the development of identity. I also expand on the phenomenological aspect of learning through narrative, which takes place at an existential level, by using examples of aesthetic theory.

Chapter three examines Palmer's notion of "creating a space" as a foundation for non-linear learning. This notion can be viewed as an umbrella of other techniques that assist to integrate the relationship between body, mind and world. I will explore the idea of time as cyclical and body wisdom as a synthesis of the physical, conceptual, and emotional realms. I also include Palmer's notion of contemplative action as an example of viewing the world with *whole sight*. Finally, I examine a new scientific paradigm of systems theory as a

foundation for a holistic perspective for non- linear learning.

CHAPTER 2

Components of non Linear Learning, part 1

Many of us live one-eyed lives. We rely largely on the eye of the mind to

form our image of reality. But today more and more of us are opening the

other eye, the eye of the heart, looking for realities to which the mind's eye

is blind. Either eye alone is not enough. We need whole-sight, a vision of

the world in which mind and heart unite as two eyes make one sight. Our

seeing shapes our being. Only as we are whole can we and our world be

whole.

Parker Palmer

As I have discussed in the introduction, our current education system is rooted in a positivist paradigm. In this chapter, I will examine the flip side of a linear paradigm. I explore the components of what I consider to be *non- linear learning*. Non-linear learning is located in the subjective realm; the dimension of the human experience that interconnects the personal, imaginative and creative aspects of our being. In particular, I explore narrative learning and the creative process.

2.1   Teaching beyond Technique: Subjective Reality

In <u>To know As We are Known</u> Palmer (1983) attempts to translate the theory of personal truth into a practical pedagogy. For Palmer, to teach is to create a space where the community of truth is practiced. Palmer argues that our modern objectivist culture needs to become grounded in the moral, spiritual, and communal dimension that it presently lacks. He speaks of a "community of truth" where one's identity can move toward wholeness once the individual can see him or herself as a creative being; where the learner sees all subjects interdependent, and where s/he is engaged by the interaction with them.

In <u>The Courage To Teach</u> (1998) Palmer looks at teaching beyond technique. He looks at what it means to be a good teacher and concludes that good teaching cannot be reduced to technique alone. Rather, good teaching comes from identity and integrity of a teacher. Teaching for identity, however, involves taking a risk; that is, the risk to explore and share our inner lives. This, however, is difficult to do "in a profession that fears the personal and seeks safety in the technical, the distant, the abstract" (p.12). For Palmer, this translates into a gap between two schools of thought: "student-centered" and "subject-oriented" education. During his many years as a teacher, and after countless reforms that have failed to effect any real change, he argues that what is missing in education is a consideration of the subjective realm, particularly the identity and integrity of the teacher. He writes,

They are subtle dimensions of the complex, demanding, and lifelong

process of self discovery. *Identity* lies in the intersection of the diverse

forces that make up my life, and *integrity* lies in those forces in ways

that bring me wholeness and life rather than fragmentation and death.

(Palmer,1998, p.13)

For Palmer the process of self-discovery and reflection is a necessary part of becoming a

teacher. Here identity is understood as "an evolving nexus where all the forces that

constitute my life converge in the mystery of self: my genetic makeup, the nature of the

man and woman who gave me life, the culture in which I was raised..." (p. 13). Once this

information is gathered, the next phase of exploration is integrity, which "requires that I

discern what is integral to my selfhood, what fits and does not, and that I choose life-

giving ways of relating to the forces that converge within me"(p. 13). This process has

significant relevance for teachers, in that "we teach who we are" (p.13). However, the

subjective reality is not included in a school curriculum, as Keen has experienced. For

Palmer this creates a divided self, a separation between the outer and inner dimensions of

a person. Postman would say attending to the teacher's inner life is necessary if he or she

is to develop an inspiring personal myth. One question arising is whether it would it be

possible to extend this type development to students as well? How could we

accommodate this in an education system so as to go beyond methodological

reductionism?

Students too need an education system that values their integrity. They also need

to ask "what is integral to (their) selfhood, what fits and what does not—(so that they can) choose life-giving ways of relating to the forces within them" (p.13). When we begin to examine what is integral to our well being we start to examine what works and what does not in our lives. When I was a student, for example, rather than just being labeled as "slow learner," I would have learned a great deal more if I had been given the opportunity to explore what it means to be a slow learner and how this label impacts a student's personal story. The following section examines the sorting process of information, that is, how stories play a critical role in linking information.

2.2   Learning and Narrative

In "Learning by Story" (1989), Postman makes an important distinction between the process of learning and the methods of teaching. He is critical of the celebrated books of Hirsch's <u>Cultural Literacy</u> and Bloom's <u>The Closing of the American Minds</u>. Both authors focus mainly on testing and compiling of facts in order to overcome illiteracy. Postman disagrees. In this mass information age, what we don't need, argues Postman, is even more information.

> What are educators to do when they must serve in a culture inundated
>
> by information? ... How can we help our students to organize
>
> information? How can we help them to sort the relevant from the
>
> irrelevant? How can we help them to make better use of information?
>
> (p.122).

Postman believes that for human beings, meaning is an integral part of our existence and suggests that stories play a vital role connecting this mass information, in making it meaningful. A story can serve as a framework that organizes a structure for perceptions. It provides a way to make sense of our world. He distinguishes the use of several types of myths that govern our lives: using an example that nations too, need stories to provide themselves with a sense if identity. In the United States, for example, the national myth of "The Super Power" serves as inspiration for "The Melting Pot." Here the main question is not whether we should have myths but rather if the inspiring myth serves us well. Postman writes: "the purposes we conceive for learning are tied to our larger conception of the world, and the problems we face, and the way we have developed our story at a given time" (p.124). In other words, learning and narrative are intertwined. It is the context of the narrative that carries value beyond the information taught in the curriculum. Therefore, it is imperative to the integrity of the student to re-examine the myths that inform their values. The following section examines the myths and themes that influence us, particularly their potential negative impact.

2.3   Personal Myth

Sam Keen (1989) views personal myth as the expression of our inner state. He describes a myth as a symbolic representation of our inner lives and identity. It is a way for us to interpret and weave the experiences of our lives into a coherent manner. Keen sees the

positive and negative aspects of this process. He believes in the importance of revising and

re-interpreting our personal myths to prevent them from stagnating and narrowing. He

advises that myths can unconsciously run our lives. For instance, a student who believes that

he or she is a slow learner is likely define him or herself as such in other areas, for instance,

sports. This is what he calls "the negative aspects of mythology" (p. 33). Examining myths

critically is important because a myth, "like an iceberg, is only 10% visible... 90 % lies

beneath the surface of consciousness of those who live by it" (p. 44). It guides our actions,

thoughts, and attitudes.

In educating towards identity, Keen (1970) proposes a course on storytelling where

each student would have an "opportunity to write his autobiography, to experience the way

in which he or she remembers the past, is aware of the present, and projects the future, and

to reflect upon the myths and models which have influenced his or her lifestyle" (p. 71).

The importance of this type of a narrative is in its capacity for understanding and making

sense of situations in our lives. Most students search for new possibilities that allow for a

re-creation of a new world-view or myth, even if that may differ from their family myth. It

is important that students be given the space to re-evaluate their myths so as to identify

with or define themselves against their inherited beliefs or traditions. In other words,

storytelling can be used as a tool that will allow students to retell their autobiography and

encourage them to reinvent a new world view. This relates to Palmer's notion of the

"force," that which enables us the capacity to preserve our memory and creatively reinvent

our futures (Palmer, 1998, p. 13).

2.4   Creativity and Language

An unexamined myth can be the product of a misguided imagination, or an imagination moulded and limited by external sources. In this section, I explore the creative aspect of language and how it can be used as a tool for non-linear learning. To begin, we must first surrender to our creativity and imagination. The process of letting go, in which we relinquish our need for control and let the creative process begin, is what Keen describes as wonder. It is "the ability to let things happen, to welcome, to listen, to allow, to be at ease in situations in which surrender rather than striving for control is appropriate" (p. 43). Maxine Greene also describes the relationship between creativity and letting go in her book Releasing the Imagination (1980) by stating that "...the role of the imagination... is to awaken, to disclose the ordinarily unseen, unheard, and unexpected" (p. 28). Keen believes, as well as other ancient philosophers, that "the prerequisite for all wisdom is the attitude of wonder" (p. 43). For children this enthusiasm is a direct link to their perpetual state of wonder, a state that allows them to surrender fully to the moment at hand. Unfortunately creativity/wonder is rarely cultivated in our conventional school system. Instead, children are taught the need for control via the use of "language (which) is the earliest tool used to cut up, structure, and control the chaos of reality" (Keen, p. 43) without ever understanding the inner reality of a child's world.

The proper use of language or symbolism, however, can be a creative act. According to Goodman (1985), words create the world in which we live. It is our thought

process that determines what truth is. Here truth is either metaphorical or literal, depending on the mode of organization. This is where language or symbolism is imperative in the construction of our worldview. How we perceive reality, however, contains only fragments of the truth. The danger here is that we see metaphors as literally true. According to Goodman (1985), "worlds are made not only by what is said literally but also by what is said metaphorically. Allowing for the creativity and flexibility of metaphorical truth creates a space where there can be as many worldviews as there are minds that carry them. When schools teach solely how to organize ideas and move away from personal identity and wholeness, they are, in fact indirectly contributing to the chaos in reality that they so desperately, through language, try to control. Sam Keen sums up this idea when he writes:

> I remained in the classroom for twenty-five years and five degrees
>
> without seriously questioning the maxim that private enthusiasm must
>
> be divorced from the educational task and I emerged from graduate
>
> school to discover that I was empty of enthusiasm. I had a profession
>
> but nothing to profess, knowledge but no wisdom, ideas but few
>
> feelings. Rich in techniques but poor in convictions, I had gotten an
>
> education but lost an identity (Keen, 1970, 39-49).

For Keen, an education that does not include the imaginative, creative, intuitive aspects of our being fails to educate for identity and wholeness.

2.5   Identity and Wholeness

As seen in the discussion of Palmer, self-knowledge is an integral part of teaching. In this section I argue that self-knowledge is also integral to learning. Self-knowledge is an awareness of our beliefs and behaviour patterns. It involves an inward journey towards self-realisation. Each of us has a very particular existence in the world, and a particular identity. Identity contains profound and diverse dimensions, "as a moving intersection of the inner and outer forces that make me who I am, converging in the irreducible mystery of being human" (Palmer, p.13, 1998).

Charles Taylor (1989) claims that the process of creating and shaping our identity is dialogical in nature. We define ourselves through language to express our thoughts and feelings. But more importantly, the context or (myth) that we live by gives meaning to our lives. Taylor writes:

> One is a self only among other selves. A self can never be described
>
> without reference to those who surround it...This is the sense in which one
>
> cannot be a self on one's own. I am self only in relation to certain
>
> interlocutors: in one way in relation to those conversation partners who
>
> were essential to my achieving self-definition; in another in relation to
>
> those who are now crucial to my continuing grasp of languages and self-
>
> understanding—and of course, these classes may overlap. A self exists

only within what I call 'webs of interlocution' ... It is this original

situation which gives it's sense to our concept of 'identity', offering an

answer to the question of who I am through a definition of where I am

speaking from and to whom. The full definition of someone's identity thus

usually involves not only his stand on moral and spiritual matters but also

some reference to a defining community (Taylor, 1989, pp. 35-36).

Here dialogue is key in shaping who we are, or more importantly, who we think we are. The

development of our sense of self is shaped by dialogue, and the nature of dialogue is in turn

shaped by the myths we live by. We begin to know fully when a narrative is viewed, not as

information, but as an articulation of consciousness acquired through experience. If I was to

apply these concepts to my own education, I would see that my experiences as an immigrant

child, in a slow learner's class, has had an impact in the shaping of my identity as an under

achiever. In hindsight it is obvious that this myth did not serve me well. Judging from the

comments I heard from my students and fellow graduate students I doubt that I am the only

learner to have been harmed by this myth. In the next section, narrative, imagination and

perception are explored as keys to non-linear learning.

2.6   Narrative, Imagination and Perception

Narrative inquiry is phenomenological. It encourages a self-analysis of the

meanings we give to the events in our lives. It is the human condition to search for

meaning in the world. Our perceptions are in constant interaction with our surroundings,

and our interaction with the world gives meaning to our lives (Eisner 1991). Johnson (1993) adds that imagination allows us to consider multiple possibilities to try to envision how we ought to act. It also allows us to go out and empathetically inhabit the world of others. Similarly, Greene (1980) writes that..."of all our cognitive capacities, imagination is the one that permits us to give credence to alternative realities" (p. 3).

Narrative gives students the opportunity to explore many potential truths for their shaping identity. This is in contrast to the limiting objective myths which promote a perceived and artificial individual and collective identity. For example, I recall an interpretation that I held about my own schooling experience. As an immigrant child, I remember having to take remedial English classes while the rest of my classmates continued with their work. In my interpretation of that event I concluded that I wasn't smart enough. This became my reality (L.A.P program). Eisner (1991) points out that we distinguish ourselves and our world through language. We primarily exist in a world that arises in and is constituted by language, suggesting, "that the mind mediates the world and because it does, perception itself is a cognitive event" (p.46).

We come to think of ourselves, our lives, the personalities we develop, and the reality we know, as set and fixed. Perspectives on aesthetics show, in contrast, how what we believe about our world and the reality we know is malleable and can actually be created and altered by language. This process of transformation is non-linear and takes place at an existential level. An aesthetic experience, for example, uses similar principles of transformation using artwork instead of language towards identity and wholeness. I will

refer to the principle of an aesthetic experience to describe non-linear approach to learning (Lankford, 1984).

Narrative inquiry reshapes perception. It allows us to retell events and to express our interpretation of those events. In other words, narrative inquiry goes well beyond the transmission of facts. According to Tappan (1991), this process plays an important role in moral thinking.

> ...when an individual... is enabled or encouraged to tell a story about
> her own real-life moral experience, two related things happen: First,
> because constructing a narrative necessarily entails moralizing, based on
> a particular moral perspective, hence telling a moral story also provides
> an opportunity for her authorship (and authority) to be expressed.
> Second, telling a moral story necessarily entails reflecting on the
> experience narrated, thereby encouraging her to learn more from
> experience – by claiming more authority and assuming more
> responsibility for her thoughts, feelings, and actions – than would be
> possible if she were to simply list or describe the events in question.
> Consequently, authorship and authority are both expressed and
> developed through opportunities to tell one's own moral stories
> (Tappan, 1991, pp.19-20).

The way in which we interpret our surroundings has a direct impact on our

aesthetic experience. Perception is shaped by our memories (White, 1998). Here

symbolic meanings are generated from previous encounters that result from an initial

distinction towards understanding an experience. An aesthetic experience can also be

viewed as a transformation of vision while encountering a work of art, existentially, at the

right moment. When we see something new in ourselves, we become transformed by our

aesthetic experience as a result of being confronted by a new meaning of living in the

world.

> The experiences are unpredictable; contingent on some antecedent state
>
> of mind, and the same works will not affect different persons in the
>
> same ways or even the same person on different occasions of
>
> experiencing them. This is why we go back and back to the great works:
>
> not because we see something new in them each time but because we
>
> expect them to help us see something new in ourselves. (Danto, 1999, p.
>
> 61).

The epistemology of aesthetic education is not linear and sequential. Instead, it is a

creative process involving the interaction of the student's perception with emphasis on

empathic knowledge. Empathy means to comprehend an object of contemplation through

outward projection. In viewing a painting, for example, the student's perception is

projected onto the artwork (or in this case a conversation as narrative) through the

imagination. This can become a way of understanding oneself. It can even be

transformative. The result of this aesthetic engagement is transformative, in that, once the

object in view is embodied, the learning is embodied (Lankford, 1984).

Again, epistemology of an aesthetic experience is not linear. There is no rote memory involved. Rather it is all encompassing, involving both the mind and heart. Moreover, narrative involves an experience of community. Stories are shared among learners. The students begin to realize that they increase their ability to generate distinctions and insights as much, if not more, by listening to the sharing of other participants rather than through their own speaking. Often, what a person cannot recognize about him or herself in his or her own speaking becomes evident or distinguished when someone with the same issue or characteristic reveals it in sharing. This can become an important component in the re-examination of one's personal myth.

CHAPTER 3

Components of non Linear Learning, part 2

To educate is to guide students on an inner journey toward more

truthful ways of seeing and being in the world.

Parker Palmer

In the previous chapter, I put forth the idea that schools may benefit by incorporating narratives into the curriculum. Narrative allows for a re-learning of the innate connection between outer and inner worlds of reality. In this chapter, I explore the terms *creating a space* and *cyclical timing* essential to the foundation of non-linear learning. This is achieved by creating a space that relates body, mind and world. Here active listening and proper breathing techniques may enhance greater awareness of identity and wholeness. I also explore the example of sex education as a way to incorporate the body. Finally I consider Palmer's notions of *contemplative action* and *whole sight* as fundamental components of non-linear learning.

3.1 Creating a Space

In the previous chapter, I explained the importance of letting go, as surrendering to a state of wonder. Here learning engages the personal, imaginative, and creative aspects of growth and learning. To ensure the success of this more existential type of learning, a particular space must be created. For Palmer (1983; 1998) this space connects the physical, conceptual, and emotional realms. For example, a physical space begins with a circular arrangement of furniture. This enables open reciprocal communications between students. A circular space encourages eye contact, which helps students feel more at home and encourages them to participate. In addition, Palmer draws on a conceptual framework of ground rules to facilitate a structure that guides topics so that emotional perspectives are not neglected.

Palmer's view of space is paradoxical, in that he believes it provides the creative tension for a learning environment. These paradoxes create this energetic space. The space must be: *bounded* and *open*; *hospitable* and *charged*; *silent* and *verbal*. An *open* space can be viewed as the freedom to be and to become, as a movement toward self-discovery. This excitement generated by open spaces, however, often becomes threatening. Our minds have difficulty adjusting to the vastness of this inner space. Inner noise tends to muddle the space as we are inclined to fear the unknown. This creates anxiety. As a result, Palmer asserts that an open space must have firm boundaries. To not have boundaries leads to confusion and chaos. Space is infinite; therefore, it needs to be

bound in a structure of perimeters and ground rules. One example of a bound space for the classroom is the circle, or a ground rule where each student must participate an equal amount if times. The space then becomes a forum for individual expression. This allows the more timid students to participate. When all voices are honoured the students are encouraged to be responsible and mutually accountable for their own learning.

This open space also must be *hospitable* and *charged*. For Palmer, hospitality is an atmosphere where receiving new ideas, challenging false information, testing hypothesis, criticism of thought and exposing ignorance, is welcomed. In this space nobody feels threatened or judged. Instead they are secure in the discomfort that uncertainty may bring. Here hospitality relates to Noddings' (1998) notion of care. She believes that an ethics of care binds individuals in relationships of mutual responsibility for each other's moral development. This is in contrast to the individualism of Kant's ethics. Nodding's writes:

> The ethic of care requires each of us to recognize our own frailty and to
> bring out the best in one another. It recognizes that we are dependent on
> each other (and to some degree on good fortune) for our moral
> goodness. How good I can be depends at least in part on how you treat
> me. Thus a major aim of the ethics of care is to prevent the very
> separation that induces the dualism exploiter/exploited,
> oppressor/oppressed, moral agent/object, and so on. (1998, p.190).

In examining one's own life, it is essential to ensure an atmosphere of open dialogue that will contribute to each student's moral development.

A teacher can lecture in a way that is intentionally *charged*, by creating an atmosphere of tension. This can be achieved by using Socratic dialog, a model of teaching by questioning, as a way of revealing truth. Palmer explains that, "before we encounter truth, we must first wrestle with the demons of untruth that arise in silence, demons that come from our own need to manipulate and master truth rather than let truth transform us" (p. 73). For this reason, *silence* is used as a tool to cleanse the mind-made world we live in. It is a time when we can be still long enough to feel our natural connectedness to each other and the world around us. In silence a new clarity arises in this infinite, creative space. In Palmer's view,

> Words so often divide us, but silence can unite. In the silence we are
>
> more likely to sense the unity of truth, which lies beneath our
>
> overanalysed world, the relatedness between us and others and the world
>
> we inhabit and study. When we emerge from silence with this sense of
>
> unity in our hearts, it is easier to speak and hear words of troth (p. 81).

In the previous chapter I explored the creative use of language and how it has long been used as a tool to structure reality and organize ideas (see p.21). Perhaps the next step then would be to teach students to become better listeners; and possibly relinquish the need for control. In The Lost Art of Listening, Nichols (1995) claims that

listening can be a powerful tool to help bridge the gap between individuals. He believes this helps to create a space where a connection is made possible. He states that "the yearning to be listened to and understood is a yearning to escape our separateness and bridge the space that divides us" (p. 10). A space for listening, therefore, is a vital and essential component for non-linear learning.

Nichols claims that the essence of good listening is empathy. In an empathetic state, the listener leaves one's preoccupations of self-centredness behind, and enters the space of the speaker. This ensures that the speakers' emotions are being validated. This method helps bridge the gap of separation that may occur when ones emotions are not validated. He cautions though, that most of the time people do not listen well because full attention is not given to the speaker. Instead, a listener may be preoccupied with either, silent disagreement, trying to give good advice, or reassurance. This is what, Nichols asserts, causes "dimming of the spirit we feel when no one is listening" (p. 2). This, he argues, is due to the fact that a person may not be able to listen well because the speaker's message may trigger an emotional response of fear, anger, or hurt. This can create a block, which can render the listener unable to hear to what is really being said. To avoid this, Nichols points out the importance of remaining present in the moment. We need to become aware of our emerging defence reactions and automatic responses in order to remain attentive and fully present.

3.2   Time as Cyclical

If "timing is everything", as the cliché goes, then schools would have a responsibility of instilling the value of punctuality. This is essential if schools are to prepare students for success in the market place. However, teaching chronological time solely, without also integrating the cyclical view of time, fragments the self. Keen believes that this leaves a student with a sense of being incomplete. This becomes most apparent during a crisis period, which is an inevitable part of the journey in life. Keen argues that, "education, which aims at wholeness, must teach a man to tell time...by including the cycle of the seasons and the human unconscious" (1970, p.53). He proposes a course that teaches students how to tell time. The aim of the course would address the uses of sundials, calendars, and clocks.

In the era of the sundial, time was measured by rhythms and seasons; where the ripeness of planting and harvesting was governed by proper time and action. The invention of the portable clock began during the industrial revolution. This replaced the sun and the passing of the seasons in which, mechanical chronology is now used as the index of time. Keen remarks that "by ordering time in abstract modules we have gained the regularity necessary to live with the machines we have created" (p. 53). He continues: "in gaining a higher standard of living.... when we ceased to measure time by the sun and the seasons, (perhaps) it was wisdom that suffered" (p. 53). This issue is also addressed by, Jay Walljasper (1997) in "The Speed Trap." He suggests that through our

technological advancements, which promise to create more time, have in fact produced a society that is addicted to speed. We now live in a society in which, the faster we try to go, the further we fall behind. Walljasper explains that this is partially due to the promises of the time saving technology, which has failed to provide us with extra, man-made time. As a result, our society has become less patient. Walljasper captures this point well when he writes that, "people want to slow down because they feel their lives are spinning out of control, which is ironic because speed has always been promoted as a way to help us achieve mastery over the world" (p .43). This notion of speed can also be connected to Postman's discussion of the god of Consumership:

> I refer to the god of Consumership, whose basic moral axiom is expressed in the slogan 'Whoever dies with the most toys wins'- that is to say, goodness inheres in those who buy things; evil in those who do not. The similarity between this and the god of Economic Utility is obvious, but with this difference: The later postulates that you are what you do for a living; the former that you are what you accumulate. (1995, p. 33)

Although Postman does not refer to speed specifically, it is nonetheless inherent in our society that values consumership and accumulation. Time in our society today has been unfortunately reduced to the patterns of monetary exchange. The cycles of the seasons, primarily proper time, rhythm and action, has now been reduced to time as money.

When we cease to be in tune with nature, perhaps we also cease to be in tune with our inner selves. Keen believes that when we are in "contact with the seasonal reality of nature ... or on the human unconscious (then) the circle appears to be the appropriate model for time" (p. 54). Students can learn to integrate past, present, and future aspects of time so that they may understand life as a series of cycles, rather than a linear line from start to finish. Students may then proceed towards living an Aristotle's view of good virtue, which equates to the notion that the emotions must be in harmony with ones actions. Nussbaum (1990) also captures this point by affirming that, "a person of practical insight will cultivate emotional openness and responsiveness in approaching a new situation. Frequently, it will be her passionate response, rather than detached thinking, that will guide her to the appropriate recognition" (p.79). In other words, wholeness is achieved when we are in harmony with the mental, emotional, and physical aspects of our being.

3.3   Body Wisdom

In educating for personal identity, Keen (1970) suggests that it is imperative for the curriculum to design a course in what he calls *Introduction to Carnality*. The intention of this course is to create a space for the integration of body, mind, and world by increasing kinesthetic awareness. He believes "the body has wisdom to teach that the mind knows not of" (p. 51). Keen is critical of the current education process in regards to the body, where he asserts that "minds, not bodies are taught in the classroom" (p. 46). Physical education can potentially fill this gap. However, as Keen points out, physical education "desensitizes the body by focusing on the competitive goal of winning rather

than increasing kinesthetic awareness" (p. 47). He goes on to point out that:

> If education aims at creating or revealing the freedom necessary to change, it would necessarily need to sensitize students to the manner in which their energies are organized. Education which avoids the erogenous zones, the sensitive areas, neglects the power structure (p. 49).

In the sphere of a non-linear curriculum, the body has many functions that may help aid in the further enhancement of one's identity. Body awareness begins with the awareness of one's breath. At an early age, his students are introduced to breathing techniques which help facilitate the integration of body, mind, and, world. When we stop to think about it, the breath is an essential part of our existence; and yet we are unaware of its many powerful uses. For centuries, ancient yogis have studied the science of breath as a tool to assist in the enlightenment of consciousness. In Kundalini yoga, for example, the breath is the primary focus. An important technique, called the *breath of fire*, is used as a powerful cleansing breath. Here students are taught to breathe deeply into the diaphragm and belly as apposed to the shallow breathing of the rib cage and chest. This is practiced in a rapid motion; inhaling through the nostrils, which helps to cleans toxins in the body and unblock emotional blocks. Yogis believe that fears and insecurities are held in the body, which is often mistaken for tension (Kaur, 2001).

When students learn proper breathing they not only become aware of the tensions

held in the body, but teachers also benefit. This enhances the ability to recognize and read body language. In a narrative approach this enables the teacher to become more aware of their students internal dialogue, which may assist toward guiding more appropriate questions. Another method includes deep alternating nostril breathing, which stimulates both right and left-brain hemispheres. For some people there may be an imbalance in being either too right- brained; which governs the creative, intuitive center, or the opposite, too left- brained; that is governed by logic. This can cause one to become too flighty or too logical. These techniques help to create equilibrium, by bringing balance and harmony to both sides of the brain. Other benefits of Kunalini yoga include: strengthening of the nervous system and improvement of digestion (Kaur, 2001).

Keen (1970) describes three components that enable the process of letting go. Here body awareness and action come together with proper timing. It allows the body to once again return to a more harmonious state. Keen also views dance as a way to develop a deep understanding of " rhythm, and timing which is easily forgotten when life is ruled too exclusively by ideas" (p. 51). He gives examples of how, in primitive cultures, it was a way to express and celebrate values and beliefs. Perhaps this is why dance, the main component of the "raves," is highly valued by the pop culture. Keen claims that conceptual analysis alone is not enough for the integration of body, mind and world, by asserting:

There are certain emotions which are difficult to entertain without

motion. We are moved by joy, or shaken by grief. It may be that the

sparsity of joy in contemporary life is closely related to the loss of dance

as a central vehicle for the education and the articulation of values and

beliefs (p. 52).

In our conventional education curricula, the mind is the primary focus, while the

body is viewed only as an appendage. Sex education is one place where the body can be

incorporated in the curriculum. The problem, however, is that sex education programs

tend to view the body as a source of problems. Morris (1997) argues that with its

exclusive focus on the diseased body, sex education remains highly pessimistic.

According to Morris (1997) the current approaches to sex education are insufficient

because they are rooted in "a long history of sexual pessimism" (p. 356) where the body

is regarded as evil. Here the role of the sex educator is to save "immature adolescence

from the dangers of premature or unprotected sex" (p. 356). If sexuality educators were

to surrender their need for control and allow for an exploration of the positive dimensions

of sexuality, then sexuality education programs might become more "embodied,

imaginative, joyful and celebrational" (p. 359). In a safe place students could creatively

explore questions or issues pertaining to the positive aspects of sexuality through theater,

poetry, song, dance, or narrative.

3.4   Contemplative Action

In his book The Active Life: A Spirituality of Work, Creativity, and Caring, Palmer

(1990) maps out three stages one moves through to achieve the experience of being fully

alive. He proposes that living life fully requires finding the right balance between action and contemplation.

In the first stage we move into *separation,* the splitting point between active and contemplative living. Most of us choose the active life. The downfall here is that a life without a contemplative balance leaves one feeling exhausted and frazzled. In my experience I have found that this leaves us naively searching for happiness in our achievements rather than in our wholeness. When our accelerated pace comes to a halt we move into the second stage, which Palmer calls *alteration.* What is unfortunate between the stage of separation and alteration is its representation of the opposite sides of the scale, by exclusively living an "either/or" reality of life. For years I have lived a yo-yo life between hectic full-time university and part-time work, to months of carefree backpacking throughout Europe. Unfortunately, neither ways of being provided any actual sustaining soul growth.

Soul growth takes place in the third stage *integration* when a shift occurs that allows a breakthrough between the two modes of being. In this stage action and contemplation are held in balance. Most people do not willingly choose this stage. Rather, it chooses them. This happens when our lives take a sudden shift, which is the last stage Palmer calls *dislocation.* When we are forced through circumstance to change our viewpoint and discover another reality about our lives. For example, one may awake to find oneself widowed or unemployed. For me, an illness forced my life towards a more holistic approach. At this point we become aware that action and contemplation are a necessary

formula to equate transformation because they are both rooted in the desire to be fully alive. The active life needs to be transformed by contemplation just as much as the contemplative life needs to be transformed by action lest we be confined to living a life of frenzy or escape.

Palmer describes action as a movement that flows towards the discovery of self-expression. When we are in action we have an opportunity to learn about ourselves, especially the relationship between our outer and inner worlds. In other words, by becoming aware of the extent to which we may directly shape our environment, reality can reveal key insights about our inner world. I have found this to be true in my own experience of relating to others. As an immigrant child, I grew up believing that the world is unsafe. I realize now that by being unaware of my own actions, can have an impact in my environment. By relating to others in a cautious manner, I would contribute to that space and receive a cautious reaction from others. On the other hand, if I know the world to be friendly place, chances are that with each new encounter, I would contribute to a friendlier environment. In Palmer's words, "reality as we know it is the outcome of an infinitely complex encounter between ourselves and the environment" (p.52). Contemplation allows one to unveil the illusion we mistake for reality. When we are sensitive to our inner and outer reality and remain committed self-discovery action becomes contemplative. The truths we discover about ourselves also contain our gifts. Perhaps this is why we have an inherent need to be self-expressed. Discovering ourselves is not an easy task, as we have all experienced on our journeys. For most of us these gifts are not revealed through interacting with others, but rather through what Palmer describes as "the fall." Many times we are driven into action not by humility, but by our prideful egos.

When we feel secure and confident we only access parts of our fragmented selves that we know are successful. Most people go through life not ever expressing sides of themselves that they feel will be ridiculed unless it is a safe environment such as with family members or close friendships. The fall manifests itself in different ways. For example, feeling in doubt of achieving a goal, appearing incompetent, being criticised, evoking competition or anger in others. Sometimes our fears may be so strong that we become paralysed into "inaction." It is our fears that keep us hidden from our true gifts, and ourselves. We can only truly know ourselves better when we are in a contemplative action. When we let reality pierce through our self-imposed illusions of the world and ourselves, something of our inner world emerges and the outer world will change accordingly. Perhaps this is what Palmer means by real action "as part mind itself, as well as spirit and soul" (p. 22).

When schools include the dimensions of wonder, wisdom, and serendipitous knowledge into the curriculum, they can be confident in educating students for personal identity and wholeness. Students will also be confident in their ability to deal successfully with crisis points in their life cycles, because creativity has been properly integrated through narrative. This, according to Keen (1970), is achieved by sensitising them "to the manner in which their energies are organized" (p. 49). Wholeness can be achieved when students are encouraged to seek what inspires them so that they may be guided towards discovering their gifts and talents by examining the meaning and purpose in their lives. The final section of this thesis looks at a new paradigm in which learning becomes about making

interconnections between the school and the surrounding world.

3.5   Holistic and Systems thinking

In the previous chapters, I argued that our education system sees reality as being

objective and separate from ourselves. Education slots the mind and the body as isolated

objects. I have argued that the inclusion of the personal, imaginative and creative aspects

of learning provides a rich alternative. This view is supported by the newly emerging

scientific paradigm that now recognizes all life as an interconnected whole. From

chemistry, biology, to physics, this philosophy of science has implications for how we

understand consciousness. Capra (1996), in The Web of Life, explains that in the Gaia

theory the earth is a living organism in a continuous process of self-creation, self-regulation,

and evolution. This view is holistic in that it focuses on the interconnectedness and co-

operation of all its plants and species. Systems theory shifts the focus from the parts to the

whole, from objects to relationships. It shows how living systems cannot be understood

solely by analysis. Here thinking is contextual and ecological—that is, non-linear (Capra,

1996).

Systems theory is concerned with connection in human experiences, primarily in

dualities between mind and body, intuitive ways of knowing, individual and community,

between the personal self and transpersonal self (Miller, 1993). Systems' thinking is a

natural way of thinking that is integrative. It involves a cognitive process that integrates

right and left brain hemispheres. Here thinking and learning becomes a whole-brain, whole-

body process that consists of rational, intuitive, affective, sensory, and volitional ways of knowing (Clark, 1997). Until recently, we have tended to deny our own hunches or deeper intuitions. The rational problem-solver was seen as the ideal to seek "an objective world objectively known" (Eisner, p. 44, 1991).

In this view transformation is required for the system's self-renewal. Prigogine discovered that transformation or creation of waste is a necessary function in the exchange of a system with its environment. New materials are always being taken in and let out but the system, as the whole, remains intact (Golf, 1999).

The view of systems thinking relates to Gardner's (1983) theory of multiple intelligences. Gardner has investigated the multidimensional nature of intelligence. He has identified seven diverse modes through which intelligence can be expressed. In addition to the highly valued verbal and mathematical intelligence, Gardner identifies musical, spatial, kinaesthetic, intrapersonal, and interpersonal intelligence. He concludes that probably all children have the potential for genius in at least one of these categories. The problem, however, is that the dominant positivist paradigm is not equipped to accurately measure all intelligences. A shift in paradigm is necessary so that teachers and students can begin to see the world in all its richness and complexity. Systems theory suggests that the world must be viewed as holographic: "to alter or distort one part of the holographic image is to change the entire image. It is the interconnection of the parts of the relationship which distinguishes a holographic form of a relationship from a mechanical one" (Maykut & Morehouse, 1994, p.14).

Individuals live in a subjective world of experience. We perceive ourselves as separate from others. Yet we are also social creatures, with a yearning to connect with one another. When viewed from the perspective of holistic and systems thinking, all knowledge is at some level subjective in nature and as human beings are we are co-creators of knowledge (Eisner, 1991). Holistic thinking involves exploring and making connections. Here learning is not just an intellectual process. Extrapolating from the Gaia theory we might say that if one part of our being is ignored the entire mind-body system suffers. As much as possible, holistic learning seeks to make connections between the school and the surrounding world. We tend to learn best when we can see the relationship of what we are learning in our own lives.

CONCLUSION

The intuitive mind is a sacred gift and the rational mind is a faithful

*servant. We have created a society that honou*rs the servant and has

forgotten the gift

<div align="right">

Albert Einstein

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In this thesis I have explored how education needs to pay more attention to the

subjective realm, in particular to the personal, imaginative, and intuitive domains. These

ways of being in the world contribute to making us more whole and human. Their

exclusion from the curriculum seriously impoverishes education

Chapter one examined how our current education system is based in a positivist

paradigm. This paradigm viewed reality as objective and separate from ourselves. With its

methods rooted in science and reduction this linear and systematic way of thinking only

serves to educate fragments knowledge rather than interconnected wholes. An education

which focuses mainly on facts as building blocks of knowledge, and that measures

intelligence, thinking, and learning in quantifiable terms, produces a worldview that is

technocratic—where procedures and form are more important than substantive issues. This

type of education fosters isolation, detachment, fragmentation, and disconnection. It leads

to an education system that does not consider the dimensions of the human experience that connect the personal, imaginative, intuitive, and creative aspects of our being. Instead, it focuses on acquisition of knowledge at the expense of our participation in it. In the end this leads to an education that trains students to focus exclusively on those skills necessary for the market place.

Narratives and personal myths also play an important role in the subjective aspect of our lives. They give meaning to our existence and provide purpose for our lives. Without them, we would not have a basis from which our stories can unfold. Some myths do not serve us well, particularly the myth of economic utility. Postman (1995) argues that this myth is too one-dimensional and, therefore, does not have the depth to really inspire learning.

Chapter two criticized linear learning. It explored why teaching must go beyond technique and include subjective truths in education. Palmer (1998), Keen (1970), and Postman (1995) all concur that the subjective realm is essential in the process of self-discovery and reflection as a path towards identity and wholeness. Keen sees *personal myth* as an expression of our inner state. He believes that we need to revise and reinterpret our personal myths. Keen also proposes narratives or storytelling as an opportunity to re-evaluate the context of our myths. In this chapter I also examined how narratives and personal myths play an important role in the development of identity by drawing examples from my own experiences as well as those from Keen and Postman.

I then drew from Charles Taylor's (1998) notion that identity is dialogical. This chapter examined how the creative use of language can be used as tool for transforming our myths. I also explored the phenomenological aspect of learning through narrative by using examples from aesthetic theory.

Chapter three addressed Palmer's notion of "space." Here the aim is to connect the physical, emotional, and conceptual. A circular space is both literal and symbolic in that the physical arrangement of chairs also represents a circular connection. This ensures that eye contact and student visibility are sustained, all of which create a sense of safety. The intention of an open space is to create a space where students have the freedom to be and to become. An open space can be viewed as a stimulating process of self-discovery and revelation. However, this excitement can soon become threatening, as the mind cannot adjust to the vastness of this inner space. Palmer asserts that an open space must have firm boundaries. He draws on a conceptual framework of ground rules to facilitate this process. This encourages students to open up to an inner space of heart and mind, free of inward noise. To help facilitate this, silence is used as a tool to help purify the mind-made world we live in. It is a time when we can be still long enough to feel our natural connectedness to each other and the world around us.

Good listening skills are considered to be a powerful tool that helps bridge the gap between individuals. This helps to create a space where a connection is made possible. Nichols (1995) points to the core of good listening is empathy. To empathize with another requires that we become aware of our emerging defence reactions and automatic

responses.

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Proper timing is an important component of non-linear learning. This reconnects the student with the seasonal reality of nature and his or her own consciousness. Keen believes that, when we cease to be in tune with nature, perhaps we also cease to be in tune with our own selves. In teaching students the value of time, Keen uses an example of proper time and action by referring to the era of the sundial; where time was governed by rhythms and seasons; and by ripeness of planting and harvesting. Keen believes that, when this is achieved the circle appears to be the appropriate model for time as students integrate past and present facets of time.

I explored the idea of time as cyclical in conjunction with body wisdom. The idea that the body is connected to intuition and feeling is central to holistic education. An exploratory space must be provided through wonder and creativity, where questions pertaining to the body and sexuality may be understood and integrated. I also included Palmer's notion of contemplative action as an example of viewing the world with *whole sight.*

Finally, I examined the scientific paradigm of systems theory as a foundation for holistic non- linear learning. This is a new emerging scientific paradigm that recognizes life as an interconnected whole. The Gaia theory, for example, suggests that the earth is a living organism in a continuous process of self-creation, self-regulation and evolution. Here wholeness depends on the co-operation and partnership of all its plants and species. I have argued that people can also be seen as depending on the co-operation and partnership with

the environment--as Stringer has researched in his work with Aboriginal people. Systems

science provides a foundation for a holistic perspective. It shifts its focus from the parts to

the whole, from objects to relationships. This "big picture" implies that thinking and

intelligence are holographic in nature.

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