Diverse Perspectives on Adult Education and Lifelong Learning

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This work is the product of thoughtful discussion among a community of scholars enrolled in Adult Education 9609 at the Western Faculty of Education in the spring of 2013. Though not all members of the class chose to have their work included in this volume, the full group deserves recognition for their teamwork, collegiality, support, and persistence. I am honored to have had the opportunity to facilitate the class.

CATHARINE DISHKE HONDZEL

PREFACE

PERSPECTIVES ON ADULT LEARNING

It gives me great pleasure to introduce this compilation of essays and perspectives written by the graduate students enrolled in Adult Education and Lifelong Learning in the spring of 2013.

As adult learners, many of us have spent a significant amount of our lives participating in the education system at one level or another. All of us have been students, and many have been teachers, mentors, coaches and guides for children and other adults. For better or for worse, these years of learning through experience have provided us with valuable insight into the perspectives, roles, and frameworks associated with learning over the course of a lifespan. In discussion, many of us remarked that from childhood through adolescence our education needs and wants change, but the systems that support them maintain a sense of consistency and only moderate changes in expectations (sit, listen, read, write). Though we aim to move our learning and teaching to a place of greater engagement, critical thought and active creation, the passive processes often dominate the environments we designate for learning.

Together as a class we had the opportunity to engage in critical dialogue with each other, shared in constructive critique, examined theories from multiple perspectives, and explored our own experiences as learners in childhood and adulthood. One of the particular strengths of this class was the range of students' age and experiences. Some had recently completed undergraduate studies, while others were actively working in the field of education and had been for many years. Each individual in the class brought his or her own unique perspective to our conversations which enriched our learning as a group. Throughout the course we found that adult education is a relatively overlooked area of teaching and learning, and we certainly noticed that it is one which draws far fewer

students than those interested in K-12 teacher education. Case in point, this is the only course offered in the calendar at Western specifically aimed at discussing the topic of teaching and learning processes in adult education and lifelong learning.

This class project served as a way to actively reflect on our own experiences as teachers and learners and bring together a host of diverse experiences and knowledges. We conceived this volume is a useful assemblage of papers on the topic of adult education. I designed the book assignment purposely to engage critical reflection and utilize in a meaningful way the somewhat typical set of assigned readings. Through connecting their own learning and experiences with the readings, students were asked to expand on their knowledge as well as think of ways to share it with others. Since we had all spent many years writing essays that eventually ended up sitting forgotten on a shelf, or more recently languishing in a digital file somewhere, it seemed to be a valuable task to assemble these works to preserve them for others to read and enjoy. Therefore, within this book there are ten different papers on topics covering a range of ideas in adult education and lifelong learning. Each chapter reflects the writer's experiences, challenges and particular interest within the field of adult education.

This book begins with a thoughtful examination of lifelong learning from a cognitive and neurological perspective. Willem Wiegersma's background in emergency medicine and chiropractic health provides the reader with an accessible examination of the concept of neuroplasticity, and the development of the human brain from infanthood through adulthood. Through the use of creative examples, his chapter provides a strong introduction to why adults learn differently while reminding the reader that you can teach an old dog new tricks.

Building on the topic of neuroplasticity, Tina Tewkesbury's chapter on emotion in adult learning speaks more specifically to contextual and personal factors that influence the ways adults learn. By discussing the roles of feeling, affect, and emotion, Tina explores the various ways in which the emotional climate of a workplace or learning setting influence not only how people learn, but what they learn. In looking at education from the perspective of non-formal education settings, this chapter is widely applicable to workplace learning and is essential reading for those interested in understanding why learning in some situations can be easier or harder than others.

Chapter 3, written by Jessica O'Reilly is positioned from a critical stance on the recent development of student-centred learning approaches. Jessica uses a critical feminist framework to explore what we mean by

student-centered learning, and discusses whose needs are and are not served within that type of framework. Expertly argued, this paper will challenge the reader in their understanding of how we adopt universal discourses of 'best practices' and why we need to be more cautious in teaching to our learners, as to not blindly follow trends and fads in education.

Transformative learning theory is an interesting development in adult learning and is especially relevant to those who critically reflect on their own practice, and desire to take into consideration culture and social change in their classrooms. Janet Chappell Matheson's examination of Mezirow's transformative learning theory is written from the personal perspective of a seasoned educator actively engaged in reflective practice. By introducing the reader to the history and development of the theory, Janet is able to clarify and point out the meaning of transformative learning and how it has benefited her own experiences and learning as a critically-engaged educator.

Robin Henshaw's experiences as an English as a second language instructor in Taiwan provided her with a number of opportunities to teach children and adults in a range of settings. Now, as a college educator she uses those experiences to shed light on the practices she adopts in her post-secondary classroom. Through the use of humour and vivid examples, Robin explores how the physical setting of a classroom impacts adult learning and how seating arrangements can either foster or prevent student engagement. Written as a general reflection on physical space in post-secondary education, it leads nicely into Part 2 of the volume which explores in more detail the experiences of adult second-language learners.

Part 2 consists of two chapters. The first is written by Bhavna Kaushal, who uses her own personal perspective as a child of immigrants to engage English second-language learners at the post-secondary level in conversations about the work of learning outside of their first language. Through Bhavna's inviting discussions with Raj, Vishal, Mina and Sia (everyone interviewed wanted their experiences to be in this book), we get to hear what some of the real challenges facing second-language learners are today. From struggles with comprehension and the speed of lectures to explorations of where they find their motivation, her chapter presents the personal side of ESL post-secondary learning in Canada. Helpful recommendations are included that speak to learners as well as educators to help create welcoming and inclusive classrooms.

Following from Bhavna's interviews, David Rayo's chapter explains some practical and effective teaching methods that he has used in an English language learning classroom. As an educator at the college level,

David has used a variety of techniques to engage his students in conversation in order to broaden their use and comfort in English. Drawing on experiential learning theories, David explores the concepts of picture cues and story-telling in helping students overcome shyness and a reluctance to speak in class while learning the arcane rules of English grammar. Through his illustration of engaging activities and setting clear expectations, David's teaching and coaching techniques speaks to the exceptional value of experience in learning, especially when it comes to grammar and vocabulary.

Part 3 of this book explores Adult Learning in Context, a broad collection of professional practice and applied concepts connected to the role of adult learning for professionals and in real-life situations. Holly Powell introduces the topic with an investigation and profile of self-directed professional development for teachers. As a teacher educator involved in creating professional development opportunities, Holly has first-hand knowledge of the ways in which teacher professional development takes place in Ontario. Drawing on solid research indicating the efficacy of such an approach, Holly discusses the importance of teacher-selected professional development and makes pointed recommendations directed at stakeholders, including politicians, teacher federations and teachers themselves to help improve their practice to encourage self-directed learning opportunities.

Drawing on some of the same themes, Sherry Thompson who also leads teacher professional development programs explores the necessity of creating policy for learning organizations which is grounded in evidence-based, effective professional development practices. She argues that without a strategy for teacher professional development we risk teacher job satisfaction and ultimately student learning outcomes. Professional learning in a new context would involve collaboration, teacher empowerment and fostering competence among educators. The current top-down model discussed by both Holly and Sherry discourages teacher development and goes against many established adult learning principles.

Lastly, the final chapter I summarize many of the larger themes in adult learning, and place many of those discussed in earlier chapters within a socially and educationally-situated framework. I argue that when adults have the opportunity to learn it often happens within a social environment and involves aspects of prior learning. The social nature of learning shapes what is learned, as well as the emotions and skills involved. My final essay examines situated environments and the role of emotional reactions, as well as social learning and self-directed learning with respect to valuing experience and engagement.

When we attempt to understand adult learning and the contexts in which adult learning takes place we need to examine it using a number of lenses- from broad to specific, within work, school, and professional contexts as well as from the personal perspective of the learner and his or her lived experience. Learning is best conceptualized as a life-long process that takes place in a diverse array of situations and emotional states. When we theorize and explore adult learning it must be from diverse perspectives, taking context into account.

This book is not only a compilation of our ideas and experiences, but it also presents many different layers of adult learning, from the biological to the cultural.

PART 1

LEARNING IN ADULTHOOD

WILLEM WIEGERSMA

CHAPTER 1

NEUROPLASTICITY AND THE CHANGING BRAIN OF THE ADULT LEARNER

INTRODUCTION

The inquisitive mind over the centuries has conquered understanding the frontiers of the heavens, the lands and the depths of the oceans. As its final frontier, we turn to the most elusive challenge to understand – the human mind itself. The last century saw development of the social sciences where human behaviour was examined in terms of cognition and how it responded to environmental, social and cultural stimuli. This resulted in the formulation of theories of learning from several pivotal contributors that include but are certainly not limited to; B.F. Skinner's work on operant conditioning, a system of rewarding desired behaviours; Pavlov's methods of classical conditioning, where behaviours are linked to external stimuli to trigger internal physiological functions and behaviours; and Bandura's social learning theory, which is a perspective that states people learn within a social context through modeling and observation. Scientists currently focusing on learning are turning to the brain to try and determine how behaviours and cognition are linked. They are also working on discovering mechanisms that determine how the brain accomplishes *thinking about thinking* or *meta-cognition*. Scientists are beginning to realise that not only do environmental stimuli affect and change our brains but the opposite is true in that our brains changes can affect our environments. Our brains have the ability to physically change, thus allowing us the ability to learn socially, culturally, and intellectually. Specifically, this chapter will address: How does the brain learn and what

is actually going on that allows us to adapt to our external environment?

NEUROPLASTICITY

What has been discovered so far is an incredible capacity of the brain to change, either positively or negatively, with every experience, emotion, interaction and thought. This change or ability to learn occurs when new nerve connections are formed in brain tissue in association with novel external sensory stimuli. This is much like creating a new shape in clay by pulling, bending and twisting it: this process is referred to as *neuroplasticity*. This process occurs on a continuous basis and allows you, the reader - the adult learner, to learn anything new that you desire as well as change or undo any previous learning. This is great news for all potential adult learners of any age wanting to improve themselves, enhance careers or even change vocations. This chapter will begin with a brief exploration of the brain demonstrating neuroplasticity in action as it develops and changes during the period from childhood to young adulthood. A discussion that follows will includes some common factors such as social requirements, optimal stress levels, emotions, and past learning that can affect the process of neuroplasticity.

The goal of this chapter is to examine and simplify existing theories and research to help the average adult learner, young or old, realise there are no limits to learning as well as provide the basics to understanding that lifelong learning is available and very doable. It is the hopes that the adult learner will gain a sense of confidence adult learning is always an option.

Neuroplasticity Explained

If we think of the whole brain as a very, very large office building that has thousands of floors and each floor has millions of offices that each contains several people so that in total we have trillions of people. If each person represents a nerve cell or neuron that can communicate with only others in their office or only to a few other neighbouring offices, perhaps on other floors, then this interaction will depend on where and to whom their phone lines are connected to. Normally, this office building goes about its business processing routine information that enters through the ground floor where a specialised relay office determines where these incoming messages are required to go. Through a complex set of phone lines, this special office sends the information to one or more of the other offices in this very large building. At the other end in the smaller offices

the people/neurons process and decode the messages and if necessary may send this information to other offices for further processing to formulate a response that then goes back to the relay office at the bottom of the building. This is all accomplished through pre-existing phone lines that have been well established by the prior building development and usual requirements of incoming and outgoing information.

So what happens if some new type of information enters the building? Say, for example, a new type of marketing method was all the rage in the business environment and this information arrived to the office building by express mail. The relay office performs a comparative analysis of this information and sends it to the departments where similar information may have previously been processed. Once there, something unique occurs and the people have to perform some problem solving that may involve attempting to contact some other offices that also may have related abilities and alternate answers but the difficulties lies in the fact that they are not connected to them. To remedy this situation the first office must call the maintenance department to come up and install new phone lines to connect to the other offices. Once this is accomplished and new communications possible, the new information can be processed. Similarly, if the maintenance department determines that some phone lines are not being used they may remove or disconnect these lines to keep the wiring in the building from getting too complex. The formation of new connections and removal of old ones is an example of plasticity and is an active process that responds to new stimuli as an adaptive response.

If the brain is presented with new opportunities for learning, or new information is presented, changes must take place in brain structure for it to become meaningful. To accomplish this, new nerve connections are made because the brain is endowed with the ability to develop, react or to adjust to the internal and external environmental changes (Trojan & Pokorný, 1999). Cozolino & Sprokay (2006) propose another definition that involves looking closer at the anatomical level: they state that "[N]eural plasticity reflects the ability of the neurons to change their structure and relationships to one another in an experience-dependent manner according to environmental demands" (p. 12). Essentially what these researchers are saying is that when a new external stimulus challenges the brain, changes in the wiring can result in at least two types of adaptation: 1) biochemical reactions can be set in motion to grow new parts from the stimulated neurons, causing them to stretch out and make connections with other neurons that have not been connected to yet; or 2) the existing connections between familiar neurons increase in number, making the contact even stronger and more efficient. There are many

examples of neuroplasticity that occur within us on a daily basis. Some of these changes may produce positive outcomes while others serve to cause us instant frustration.

New outside stimuli occur frequently in the brain and in many cases without out our realising it. To illustrate this, we can all recall times when we drop something and in a moment of haste we bend down to pick up what had fallen. As we reach down to retrieve the object we inadvertently miss it, probably due to incomplete conscious attention to the act. After all, we have done this a thousand times before; however, the act of falling short to pick up the object actually established a new neurological pathway within our sensory and muscle systems. Like it or not, we have now made some new neural connections. Visually we are attuned to the fact that we missed the object so we attempt to pick it up and again we miss it because this time we are using the new neural circuits. This new neuroplastically-determined action will repeat its self several times until we become sufficiently frustrated and force ourselves to consciously override this newly established neurological pathway. To pick up the object, eventually, we have to develop a pathway that either overrides the deficient one or form an entirely new one to achieve the desired outcome. We can probably think of many other examples that happen to us on daily basis. Next, the brain's adaptive response to injury provides us with even more dramatic examples.

In the event that there is direct damage to a part of the brain due to a concussion, head injury, aneurysm, or surgery remarkable recoveries have been observed. Prior to research being done on neuroplasticity scientists believed that once there was damage to brain tissue, nerves could not be replaced or heal themselves, making the deficits permanent. Without proper brain stimulation and targeted rehabilitation to address the specific damaged regions, these deficits did, in fact, remain permanent (Doige, 2007). Research on damaged brain tissue conducted by Björklund and Stenevi physically demonstrated that, "[R]eparation may result from changes in the efficacy or in the number of synapses, from the rearrangement or from sprouting of dendritic and axonal branches" (as cited in Trojan & Pokorný, 1999, p. 91). These synapses are the actual connections manufactured between neurons whereas the dendritic and axononal branches, the anatomical parts that make up the neuron cell itself, physically change to make new connections to neighbouring neurons. This is much like growing more arms and legs and adding to the ones that are already present. Doige (2007) illustrates some excellent examples of how neuroplasticity can transform people afflicted with devastating brain problems using the story of a patient presented with a

permanent and severe balance disorder resulting from antibiotic use. Through the proper rerouting of external sensory inputs within the tongue to the part of the brain that senses balance; new neurological pathways were developed to restore her balance. Entire new branches in medicine and specialty brain rehabilitation centres have sprouted up. Coordination of appropriate and timely stimulation of the damaged brain can demonstrate remarkable repair to itself thus providing hope for those with brain injuries where there was no hope before.

Neuroplasticity is certainly not a new phenomenon in the brain. *Evolutionary plasticity* is a term Trojan and Pokorný (1999) use to describe morphogenesis, the physical changes from early undifferentiated cell types to specialised nerve cells. The nervous system undergoes many neuroplastic changes during human development from conception to adulthood. This is an important topic that leads to the comprehension of what occurs during adult learning and what adult educators must be aware of while creating curriculum and learning environments.

Development of the Nervous System

Nervous system development is a fascinating progressive sequence of events that is obvious if you have had children or watched them grow, since it is wondrous to observe and thought-provoking to reflect upon knowing that you went through the same process to get where you are at now. This discussion will be limited to what is going on in the brains of early adolescents' as they progress to young adulthood, and may help to explain your behaviours during your adolescent years when you were the cause of your parents' premature gray hairs.

The following scenario may be all too familiar to those who have reared adolescents or it may foreshadow what is to come for those raising pre-adolescents. Again, it may also remind you of your behaviours as you reflect on your teen years:

> Your youngest child just turned fourteen. You have two other children aged sixteen and eighteen and ever since they turned fourteen, life has not been the same. Mood swings, yelling, slamming doors, insubordination, elation, and unsolicited attitude that changes in an instant are just a few of the emotions the two oldest oscillate between. You hold out hopes that the youngest will be different because he is quiet, considerate and does everything you ask of him without question. After

> all, you know what they say, *two out of three…* One day you return home from work and you trip over your youngest child's school knapsack while carrying full groceries bags through the front door spilling all the contents to the floor. You call out to him in frustration, telling him to not leave his bag where people can trip over it. You silently recall that he had never done anything this inconsiderate before. You hear a return yell from the TV room down the hall, telling you off in a few choice four letter words. "Oh no, not him too, he was to be my last beacon of hope for sanity, the good one…" you hear yourself scream in your head. You were about to return fire when you suddenly realise, as a sobering thunderbolt of lightning vaporises your bubble of denial,… *you are operating an outpatient psychiatric clinic right in your own home!*

If this sounds familiar, be rest assured that it was nothing you did to make this happen. However, this behaviour is the result of neuroplastic changes going on in the little delinquent's brain and is completely out of your control. So how is this turbulent period of human development explained? The following is a brief description of the neuroplastic changes that occurs during the pre-adult years.

Early adolescence, ages 12 to 14, is a period of significant hormone production that results in increased rate of physical growth, development of secondary sex characteristics, and many structural brain changes (Nelson, 2004). It was thought that by the age of four all brain development had occurred with basic cognitive and brain functions completed, but it is now well established that further brain growth and maturation occurs throughout and after puberty. There is great plasticity of the brain during pre-pubescent and adolescent years where several different parts of the brain are at times more actively developing. During the preadolescent years, development of the lower parts of the brain are associated with basic emotions, uncontrollable mood swings, increased risk-taking behaviours, and survival-essential rewards such as food, water, sexual reproduction (Blakemore & Choudhury, 2006; Casey et al., 2008; Dahl, 2004b; Luna & Sweeny, 2001; Spear, 2010;). An analogy would be that of the *id* that Freud refers to in his theory of the human psyche. This helps to explain why teens reap great satisfaction in creating anarchy and chaos. There is good news, however, as there are further changes in the brain that occur into later adolescence that serve to regulate these

behaviours and move the individual closer to adult brain maturity.

In later adolescence the brain undergoes many changes of the prefrontal cortex. This region of the brain is associated with cognitive development, executive functions that initiate and monitor actions, insight, and judgement, the ability to inhibit inappropriate responses, and plan for the future. The overall consequence to this newer brain development serves to control the risk-taking and reward seeking behaviours arising from the sub-cortical regions (Arnsten & Shansky, 2004). The prefrontal cortex development occurs later in adolescence explaining why greater cognitive control is observed as adulthood approaches. As maturity continues, the prefrontal cortex exerts greater inhibition to the activities of the lower regions of the brain and thus is thought to be subject to greater "top down" cognitive control. In this manner, as the prefrontal cortex develops into adulthood, there is less risk-taking and greater impulse control. To borrow from Freud's theory of the human psyche as again, this top- down control illustrates the *super-ego* at work (Arsten & Shansky, 2004; Blakemore & Choudhury, 2006; Casey et al.,2008; Dahl, 2004a; Spear, 2010).

There have also been some references to cognitive effects that are under dual regional control. It is thought that during the adolescent years the teens oscillate between the ability to exert self control and demonstrating varying degrees of poor impulse control and reward seeking behaviour until greater stability of adult behaviour appears. Adolescents can therefore, at times, exhibit rational control and awareness but when exposed to peers, temptations and alcohol, all bets are off and the resulting behaviours are then due mainly to lower brain influences. Stated another way, a teen in a precarious situation knows better but acts impulsively anyway (Forbes & Dahl, 2010). Continuing with Freud's analogy, the *ego* is trying to strike a balance of control between the 'top-down' and 'bottom-up' influences but helplessly falls victim to the 'bottom-up' forces. As teens mature into adulthood, so does *ego* develop. Greater gains in control over the *id's* impulses and the balancing of the over- protective *super-ego* 'top-down' restrictions becomes much more evident (references to Freud were adapted from Schacter, Gilbert, & Wegner, 2009, 2011).

So there you have it, the changing teenage brain in a nut shell. We can see that neuroplasticity has great effects on emotions and cognition and the following section will delve into how we can use this knowledge to our advantage as adult learners and educators.

The Adult Learner

Now that we have a good understanding of neuroplasticity and how it functions in changing the brain while being stimulated by new environmental stimuli: how do we take advantage of this process while learning? It is well known that learning best occurs in social contexts where safe and trusting relationships are upheld by the learner and the teacher. Other factors that enhance neuroplasticity and the formation of new knowledge are arousal levels and simultaneous activation of thinking and feeling. How one feels about themselves and the personal narrative reflecting a positive and optimistic self also plays into reinforcing the brain changes and the self fulfilling prophecy that leads to success (Cozolino & Sprokay, 2006). Learning, however, can mean many things to many people and a motivation to do so requires that the meaning of learning be examined a bit closer.

It is useful to unpack what learning actually entails. Learning, according to Schacter, Gilbert, and Wegner (2009, 2011) "is acquiring new, modifying and/or reinforcing existing knowledge, behaviours, skills, values, or preferences and may involve synthesizing different types of information. Learning is not compulsory; it is contextual. It does not happen all at once, but builds upon and is shaped by what we already know. To that end, learning may be viewed as a process, rather than a collection of factual and procedural knowledge. Learning produces changes in the organism and the changes produced are relatively permanent" (p.264). Adult learners bring with them a vast amount of previous learning and experience that can affect the way in which they relate to new material being learned such that greater meaning is generated because of their past experiences. This previous learning can also enhance how they relate to others and can act as resources to their classmates. However, one problem that has been identified with previous knowledge is that fixed habits and patterns of thought may result in the adult learner being less open-minded (Knowles, 1980, p. 50). This obviously plays into the fact that new learning must re-write or override previous brain changes resulting from prior neuroplasticity. One key point about adult learning is that is occurs best in social contexts. Since our sensory systems and hardwiring of our brains, which occurred during childhood, respond maximally in social situations, because even prior to birth, we are stimulated to be social human beings (Jarvis, 2010, p. 1).

"The social brain" (p. 13), as it is referred to by Cozolino and Sprokay (2006), asserts the notion that the brain is a social organ and since the 1970s researchers have been mapping and looking for neural

circuits involved in social behaviours. New areas of study to examine how people's brains interconnect with each other have developed and they include such disciplines as *social neuroscience, interpersonal neurobiology* and *affective neuroscience*. Although there is no one centre in the brain dedicated solely to social behaviour it is through conscious or un-conscious sensory, motor, cognitive, and emotional inputs that there is a constant two-way communications between it and others around them. Evidence is mounting that through facial expressions, physical contact, eye contact, and subtle intonations in voice and so on all formulates a balance in the matrix of neural connections through the processes of neuroplasticity (Cozolino & Sprokay, 2006, p. 13). Learning, thus, is certainly enhanced when there is a positive, caring, and trusting relationship between the teacher and the adult learner. Neuroplasticity then, is certainly affected by the body language emitted by others.

Other effects of neuroplasticity and the social brain, although slightly off topic but helps to reinforce the understanding of this discussion, are seen in hospital neonatal intensive care units. Studies have demonstrated that premature infants require human touch and voice to in order to increase their chances of survival. It was initially thought that handling these preemies would increase the probability for contracting infections but it was found that isolating them in incubators until their physiological systems matured enough to enter the world, resulted in a syndrome called *failure to thrive*. It was found through physical contact: feeding them manually, stoking their backs, and communicating by talking or singing enabled them to gain weight faster, suffer fewer infections and to leave the incubators sooner. Increased rate of head circumference measurements of the neonate, indicating a faster brain growth and development, is another measurable variable observed with increased forms of stimulation (Als, Lawton, Duffy, McAnulty, Gibes-Grossman, & Blickman, 1994; Caine, 1991). Similarly, in the adult aging brain, failure to thrive amongst the elderly is another problem observed when their social connections and physical contact is severely limited. There is an observed increase in physical illnesses, depression and a greater decline in cognitive function as seen in increased incidences of Alzheimer's disease and dementia. To counter these effects, lifelong positive thinking and emotions related to strong social connections not only maintain a sufficient level of mental health but also increases life expectancy (Danner, Snowdon, & Friesen, 2001; Hancock, 1985).

When learning, emotions and stress are closely linked, neuroplastic development of the brain is greatly enhanced. Stress leads to levels of arousal and for learning to be effective, arousal levels must be

optimal. If the levels are too low, the learner is unmotivated whereas if they are too high, the ability to concentrate and focus on the matter at hand becomes exceedingly difficult. Moderate levels of stress, however, stimulate neuroplasticity by triggering the factors that promote new nerve growth. By increasing the production of neurotransmitters and neural growth hormones there is observed strengthening of neural connections and increased brain tissue reorganisation. If previous learning occurred while stress and emotion levels were elevated, adults having experienced this may have suffered negative effects that can create barriers to future assimilation of knowledge (Siegel, 1999).

We all can remember a teacher from our past that had commented on some part of our academic performance or created a learning environment that made it difficult to pass resulting in the development of insecurities or even fears about learning. If this is the case with an adult learner, then it becomes necessary for them, as well as the adult educator, to try and reduce any undue stress by modifying the curriculum and/or the learning environment to as stimulate neural connections that override or correct previous neuroplastic formations (Cozolini & Sprokay, 2006: Vyas & Chattarji, 2004). If we return back to the example of picking up the object that was dropped with repeated attempts at retrieving it, the adult learner too must consciously address their stress level and emotional state to create a successful neuroplastic outcome of learning. Studies have demonstrated that initial anxieties that adult learners may have about taking on the student role after some time away from the classroom are a passing phenomenon, and thus, as successes build in number so too does their confidence (Ross-Gordon, 2003).

The Adult Educator

Knowles' (1980) work delineated adult learners from child learners. He was the first to promote the term *andragogy* and defined it with terms related to unique adult learners' characteristics. With these in mind, the concept of the *self-directed learner* was described as well as four assumptions that separated the adult from the child-the *pedagogical* learner. Without going into too much detail on these assumptions, this discussion has already touched on the role of the learners' experience that influences heavily on meaning-making of new knowledge. Neuroplastic changes are easier to effect if there is already present some previous connections made during earlier neuroplastic learning events. Two other assumptions that were made; readiness to learn and orientation to learn,

are both influenced by the adult learners' emotional states and stress levels. These are easily modified by a caring and understanding relationship with an educator that provides a strong social atmosphere that reduces stress and promotes appropriate emotional connections for learning to occur.

The adult educator must be aware that adult learners come with needs, desires and motivations which are all modified by their personal stress levels, previous fears, emotional states, and insecurities. On top of all this, influencing each one of these variables is personality type and different learning styles. Having knowledge of the effects previous neuroplastic changes and the expectations they place on the adult educator to provide a safe, social and optimally conducive learning environment to maximally stimulate learning and new neuroplastic changes, essentially makes the educator a neuroscientist. Cozolino & Sprokay (2006) eloquently summarise what is required for the adult: "[F]or many learners of all ages, trust, dialogue, and healing precede genuine learning…[and that]…teacher/mentors who inspire adults to learn may unconsciously embody the neuroscience of education [and what all this essentially boils down to] is that human brains need social interaction to promote neuroplasticity" (p. 17).

Some Final Thoughts

This chapter provides a brief overview of the understanding and research that is going into the concept of neuroplasticity and brain changes during learning. There is a tremendous amount of information already discovered about what is occurring biochemically and anatomically at the various levels and parts of the brain during the input of new stimuli and information. These finding are far beyond the comprehension level for this discussion but suffice it to say that you, the reader/learner, now have a new awareness that the human brain is extremely dynamic and that learning, which is the result of neuroplastic changes, can occur at any age. In fact, neuroplastic changes have already happened while reading this chapter. It was one of the purposes of this discussion to instil in each adult learner the confidence to seek and achieve greater amounts of knowledge. Now with the knowledge of neuroplasticity and that brain changes are possible, the adult learner and the adult educator can surmount any obstacle that the learning process may present.

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CHAPTER 2

THE ROLE OF EMOTION IN ADULT LEARNING & THE DEVELOPMENT OF TEACHING STRATEGIES FOR NON-FORMAL SETTINGS

INTRODUCTION

Educators have long been interested in the role of feeling, affect and emotion in learning (Jones, 1968; Rogers, 1969; Salzberger-Wittenberg et al., 1983), and historically researchers in the area of adult education have recognized their importance in adult learning (Brookfield, 1986; Lindeman, 1926). Within the past fifteen to twenty years, the emotional aspects of teaching and learning in adulthood have become a major theme in research (Dirkx, 2008). There is an emerging body of research that is enlightening educators about the role of emotions in adult learning. Theorists suggest that, "personally significant and meaningful learning is fundamentally grounded in and derived from the adult's emotional, imaginative connection with the self and with the broader social world" (Dirkx, 2008, p. 64).

Most adult education occurs within a non-formal learning context (Rager, 2009). Both professional opinion and empirical research suggest that "the major advantages of learning activities in non-formal settings, over those in formal settings, may lie in the affective domain" (Meredith, Fortner & Mullins, 1997, p. 806). Taylor (2008) asserts that "if emotions and their role in learning are better understood by the non-formal educator, the result could be more effective practice" (p. 79). The interrelationship of emotions and learning, according to Jarvis (2006), is that, "emotions can have a considerable effect on the way we think, on

motivation and beliefs, attitudes and values" (p. 102). Since our goal as educators is to provide meaningful learning experiences that enhance learning, this chapter will explore the role of emotions in adult learning and identify how educators can incorporate teaching strategies to achieve optimal learning within non-formal settings.

Definition of Emotion

Emotion is defined as, "an arousal state exceeding optimal levels and having positive or negative meaning for the individual" (MacKeracher, 2004, p. 124). Further, emotion is understood as a "neurophysiological response to an external or internal stimulus, occurring within and rendered meaningful through a particular socio-cultural context and discourse and integral to one's sense of self" (Dirkx, 2008, p. 13). Damasio (2003) suggests that response to stimuli result in "a specifically caused transient change of the organism state" (p. 153). Terms such as *emotion*, *affect*, and *feeling* are currently used interchangeably within educational discourse to explain the same phenomenon (Dirkx, 2008). Overall, emotions can be conceived as "a wider process that includes physiological (body reactions and neurophysiological path), behavioral (action tendencies and emotional, facial and gestural emotional expressions), cognitive (subjective experience of perception and evaluation), social and interpersonal aspects (learned by social and cultural norms)" (Guedes Gondim & Mutti, 2011).

In the past, philosophers and researchers thought that we should separate reason from passion, thinking from feeling, cognition from emotion (LeDoux, 1998). Emotions were considered a part of science that was too unstable to take seriously. Plato, however, believed that passions, desires and fears make it possible for us to think and learn.

Today, advances in neuroscience have allowed us to increase our knowledge of the brain and thus our understanding of emotion. Neuroscience researchers assert that emotion must be recognized and considered as integral to learning (Peace, 2000). Learning is defined as a relatively permanent change in behaviour, including observable and internal processes such as thinking, attitudes and emotions (Burns, 1995). Wolfe (2006) asserts that the brain is a "pattern-finding organ" seeking to create meaning through establishing or refining existing neural networks; in essence, this is learning.

Definition of Non-formal Learning Settings

Non-formal learning is any activity involving the pursuit of understanding, knowledge or skill which occurs outside the curricula of educational institutions; its aim is to serve a great variety of learning needs of different subgroups in the population young and old (Livingstone, 1999; Ahmed & Coombs, 1975). For example, non-formal education for adults can involve a diverse set of activities such as: operating a computer; learning how to play bridge, or golf; understanding personal financial management; and, dealing with difficult customers.

Given the broad array of non-formal learning activities, the term *non-formal learning* will be more specifically defined for the purpose of this chapter as those activities that are organized and occur within organizations. Non-formal learning, in this context, has the following qualities: more focused on the present; learner-centred; less structured (than formal education); responsive to localized needs; and, involves a non-hierarchical relationship between the learner and the non-formal educator (Ahmed & Coombs, 1975; Jarvis, 1987).

Non-formal learning environments differ from formal educational settings in the following ways: time for teaching is short in duration; participation is generally voluntary; there is often a wide variety of abilities and ages among learners; there are often regular distraction (e.g. noise, interruptions); and facilitators are often appointed based on their content expertise and may have little teacher training (Taylor, 2008, p. 81).

Exploring Emotion in Learning

Educators need to understand the sources of emotion as it relates to the non-formal learning setting. There are three main sources of emotions: those we bring to the learning process (e.g. personal issues around family or work), those that are generated during the learning process, and those that are experienced when individuals are given feedback about their learning endeavours (MacKeracher, 2004). Some learners may bring learning-related emotional issues with them; these are from previous emotional experiences, or trauma, within a learning environment (Dirkx, 2008). In these situations, learners may or may not be aware of specific situations causing anxiety and fear. For example, learners may have experienced humiliation by previous educators, or they may have experienced physical, sexual, or emotional abuse by persons in authority (Dirkx, 2008).

Currently, three prominent perspectives for understanding emotion exist. First, an innate or inherent perspective of emotion suggests that emotional states, for the most part, are physiological responses to internal or external stimuli (Lupton, 1998). This perspective suggests that individuals experience emotions as physiological responses which are, therefore, manifestations of the lower part of our brains (Jarvis, 2006; Lupton, 1996). (*For a more detailed discussion on biological and psychological influences on adult learning, refer to Chapter 1 in this volume.*)

Second, cognitive theorists "accept a less essentialist view allowing that emotional behaviour remains an essentially physiological response to external stimuli but often mediated by processes of judgment and assessment or appraisal" (Dirkx, 2008, p. 12). Within this perspective, researchers propose that emotions are experienced both physically and mentally. The limbic system instinctively makes decisions, directing our attention to where it feels it is most needed; within this system, the amygdala (which associates events with emotions) and the hippocampus (which deals with memory) are both viewed as critical to the learning process (Peace, 2000; MacKeracher, 2004). Emotions are considered the key factor in allowing individuals to remember; since memories are connected to specific emotional states, they can be recalled best during similar emotional states (Peace, 2000). Other theorists claim that emotions are fundamentally social constructions and entirely dependent on the particular contexts in which they are manifest. From this perspective, emotions are "always experienced, understood and named via social and cultural processes" (Lupton, 1998, p. 15).

Emerging recently as a third major approach to understanding emotion is the idea of the emotional-self as embodied (Lupton, 1998). This perspective emphasizes more than just emotion as a bodily sensation. Rather, "embodiment is integral to, and inextricable from, subjectivity" (Lupton, 1998, p. 32). It represents a theory of knowledge production that "depends on being in a world that is inseparable from our bodies, our language, and our social history" (Varela, Thompson & Rosch, 1991, p. 149). From this viewpoint, emotion represents a more holistic way of understanding and knowing (Merriam et al., 2007); emotion is both the experience of body states and our interpretation of these states (Dirkx, 2008).

INTERRELATIONSHIPS BETWEEN EMOTION & LEARNING

Earlier research advocated that the process of cognition was separate

from emotive processes (Kolb, 1984; Mezirow, 1991). It was predominantly assumed that learning is concerned with the intellect and with cognitive processes, and that feelings were of relatively minor importance. Currently, theorists reject the idea that emotion is a barrier to reason and knowledge as the impetus to engage in and persist with any learning activity comes from one's emotions (Jarvis, 2006).

As a result, current research shows a re-visioning of the role of emotions in adult learning. Emotion has a considerable effect on the way we think, on our motivation and beliefs, and our attitudes and values (Jarvis, 2006). Theorists suggest that emotion is important in adult learning because it can "either impede or motivate learning" (Dirkx, 2001, p. 63). Emotion plays a critical role in our sense of self and in the processes of adult learning as they influence our ability to process information and to accurately understand what we encounter (Dirkx, 2008). More specifically, emotion impacts both the quality and strength of the neural trace or imprint in the brain, thereby affecting our ability to recall what has been learned or experienced. From personal experience, as an adult learner, I have stronger recollection of *what* I have learned when my emotional self has been engaged. For example, my recollection of Freud's personality theory involving the *id*, *ego* and *superego* is strong (even twenty years later) because my teacher created an environment that triggered my emotions during the learning process. The emotional side of learning is, "the critical interplay between how we feel, act and think. There is no separation of mind and emotions; emotions, thinking, and learning are all linked" (Jensen, 1998, p. 71).

The Role of Emotion & Learning Models

Current learning models have adopted the perspective that emotive and cognitive processes are both critical in adult learning by advocating that "emotion plays a more integral, central and holistic role in reason, rationality, learning and meaning making" (Jarvis, 2006, p. 102; Merriam et al., 2007). Three types of learning models will be reviewed as each are relevant to the discussion on the connection of emotions in adult learning and the achievement of optimal learning within non-formal settings.

Holistic learning models suggest an approach to learning in which the 'whole person' (e.g. mind, body and spirit) is engaged. Forgas (2000) supports the idea of *fusion* between emotion and cognition; emotion and learning are considered to be two separate processes "that are inextricably intertwined and interdependent" (Benozzo & Colley, 2012, p. 307). Individuals can have different levels of awareness during different

moments of existence. Sometimes, emotions are more intense and in the foreground, or they are silent and in the background, but always, "thoughts are imbued with emotions and emotions with thoughts" (Fineman, 1997, p. 16).

The Holistic Model of learning proposed by Heron (1992; 1999), presents learning as an interaction between four distinct modes of psychological being: *feeling*, *imaginal*, *thinking* and *practical*. These modes are represented in the form of a pyramid with *feeling* at the base and *practical* at the top. As such, Heron's model (1992; 1999) proposes that learning is firmly grounded in feeling rather than thinking. This perspective contrasts sharply with much of mainstream traditional education, where cognitive thinking and the pursuit of intellectual competence have the pre-eminent role. The significance of Heron's (1992) model is that the crucial requirement for each learner is to establish a relationship with their total learning situation which is intimate, resonant and positive. Only when the *feeling mode* is firmly in place can the learner access the other three modes of the learning model (Heron, 1992).

The *Conscious Competence Learning Model*, of which the earliest origins are not known, describes four stages of learning for any new skill (Robinson, 1974). The term *conscious competence* refers to the level of ability (or inability) by which an individual may perform a task. Initially, individuals are unaware of how little they know, or unconscious of their incompetence. As they recognize their incompetence, they consciously acquire a skill, and then consciously use it. Eventually, the skill can be utilized without using conscious thought. Progression through each of the stages is often accompanied by a feeling of awakening, when things 'click' into place for the learner, and the individual feels as though they have made a significant step forward in the learning process.

This model is important for the following reasons: it allows educators to empathize with learners; it serves as a tool to measure learners' progression; it provides opportunities to have students learn skills in a manageable set of progressive steps (e.g. "chunking" theory of learning design); and, it allows for the assessment of different learners' challenges (e.g. personal awareness, resistance, denial). More explicitly, this model can allow the educator to identify what stage learners are in as each stage requires a different emphasis. For example, if a learner is in the *conscious incompetence* stage, he or she may require praise and role models to learn from, while someone who is *unconsciously competent* may need to review their skills and abilities. For learners, too, this model is important since it can provide a 'roadmap of learning' allowing for learner to recognize or

become aware of their own aptitudes and skills, their need to learn a new skill and the personal benefit they can gain by acquiring this new skill.

A third type of learning model that is relevant to this discussion on emotion and learning are those that recognize that learning is intrinsically difficult for adults since it causes learners to experience cognitive disequilibrium and confusion when they face contradictions or anomalies to existing knowledge or schemas (e.g. stereotypes and scripts) (D'Mello & Graesser, 2012). Kuhn (1962) identified this phenomenon as a *paradigm shift*, suggesting that when pre-existing views of the world can no longer be maintained, new adjustments have to be found and, as a result, learning situations can be experienced as threatening. Similarly, Taylor (2001) supports the idea that learning situations are disliked or avoided because they expose individuals to their incapacities while attending to and making sense out of new information.

Stein & Levine (1991) believe that individuals prefer to be in particular states (e.g. happiness, contentment) while preferring to avoid other states (e.g. frustration, anxiety). Within this learning model, Stein & Levine (1991) suggest that when new information causes a mismatch with existing schemas (e.g. paradigm shift), the autonomic nervous system (ANS) is aroused. As a result, learning almost always occurs during an emotional episode because when ANS occurs with a cognitive appraisal of the situation, an emotional reaction occurs.

Learners can revert into desired states of learning, referred to as "engaged" or "flow states," when equilibrium is restored (D'Mello & Graesser, 2012). To restore equilibrium, it is important for educators to promote thought, reflection and problem-solving within the learning experience. Should learners fail to restore equilibrium, they will become frustrated and, if unresolved, they will become disengaged and bored (D'Mello & Graesser, 2012). As a result, it is critical for educators be cognizant of learners' emotional states in order to enhance the learning process.

Role of Arousal in Learning

Learning involves arousal, which in physiological terms, includes "increasing heart and breathing rate, increasing adrenaline levels in the blood, increasing blood pressure and blood flow to the brain and skeletal muscles" (MacKeracher, 2004, p. 123). Whether arousal is positive or negative, adult learners are impacted in the following ways: as arousal increases, so too does the emotional intensity; initially, behaviour is increasingly motivated, organized and directed towards the goal; and, if

arousal exceeds the ability to respond, motivation decreases, behaviour becomes disorganized and physical collapse is possible (MacKeracher, 2004). Further, excessive arousal circumvents the brain's normal circuits so drastically that communication between the limbic system and the neo-cortex shuts down and the brain is unable to make relevant connections (MacKeracher, 2004). Hart (1983) termed this phenomenon "downshifting" to explain the less-than-optimal functioning of the neo-cortex when a threat is detected prompting the reptilian (lower) brain to take over all functioning (MacKeracher, 2004).

Educators of adult learners need to know that arousal reactions, including the level, strength, and duration of the reaction, increase with age (Hebb, 1972). Research suggests that this is so because adults have more emotional associations, not fewer, with learning materials and activities (Kidd, 1973). Adults, too, may feel more threatened when learning because previous gains in their self-esteem and self-confidence can be diminished if they try to learn and fail (MacKeracher, 2004). Based upon my experience in teaching, I acknowledge that most adult learners start new learning experiences under some stress and arousal. It is often evident to me, for example, when adult learners show reluctance to speak at the beginning of a learning experience. Therefore, adults do not generally require further arousal to motivate learning (MacKeracher, 2004).

Positive & Negative Emotions

Both positive and negative emotions are special states of arousal or motivation (More, 1974). Adult learners experience emotion in a range from positive and energizing to negative and distracting (Dirkx, 2008). Emotions that are experienced as positive are felt as excitement, happiness, hope, joy, love or satisfaction. Alternately, if emotions are experienced as negative, they are felt as fear, anger, anxiety, sadness, shame, disgust or dissatisfaction. Negative emotions can reduce learner competence and impede learning as they may focus the learners' attention on themselves, rather than learning, or they may cause a malfunction to occur between neural connections (MacKeracher, 2004). If the arousal level is very high, negative emotions may be experienced as distress while positive emotions may be experienced as euphoria (MacKeracher, 2004). As educators, we need to understand that extreme states, such as euphoria and distress, use up energy levels which are consequently not available for learning.

Stress is another factor that can impede learning; it is a term used to

describe a non-specific arousal state occurring in response to perceived threats (MacKeracher, 2004). When there is too much stress, anxiety sets in and prevents learning; whereas, too little stress makes the learner too relaxed to activate cognition (MacKeracher, 2004). The brain thrives on challenges to generate stress and activate emotions so that learning can take place. Positive stress alerts our survival instinct in our brains and acts as an intrinsic motivator. Adrenaline is released which heightens our perceptions and increases our motivation as learners. Negative stress, on the other hand, causes "a physiological response which brings on confusion, disorientation and distortion of reality… followed by fatigue, muscle tension, anxiety and irritability" (MacKeracher, 2004, p. 125). Prolonged stress can also lead to reduced competence in communicating, such as repeating phrases, not finishing sentences, and not listening (MacKeracher, 2004).

As educators, it is critical to recognize that there is great potential for enhancing adult learning by engaging learners' positive emotions. A common, and false, assumption exists that emotions are only "baggage that impedes effective teaching and learning" (Dirkx, 2008, p. 8). Positive emotions can facilitate mastery of skills, creativity, and memory organization all of which allow cognitive material to be better integrated (MacKeracher, 2004). Positive emotions can benefit learners in the following ways: boost their brain's ability to make better neural maps; help learners relax; allow learners to think of a variety of alternative solutions and ideas; and, develop learners' personal strengths (Fredrickson & Joiner, 2002).

Teaching Strategies for Non-formal Learning Settings

For nearly ten years, I have been teaching a diverse group of adult learners within a large organization. Most of the non-formal education that I conduct involves topics which elicit arousal and emotion in learners. For example, I teach human rights legislation (e.g. harassment and discrimination), violence and abuse awareness and prevention programs, and basic corporate orientation modules (e.g. customer service, organization's mission and corporate strategy). Promoting and encouraging appropriate levels of arousal and positive emotions in the learning environment can often be challenging especially given the emotionally-charged topics that I teach. As educators of adult learners, we must understand that we have the ability to directly impact the learning experience; in fact, "the energy mobilized through arousal can be channelled equally well into learning and ultimately into success and

satisfaction or into increasing anxiety, distress or resistance to learning" (MacKeracher, 2004, p. 126). The following discussion will highlight strategies in which non-formal educators can promote optimal learning by considering learners' emotional states.

It is critical for non-formal educators to create safe, positive, respectful and engaging learning environments (Caine & Caine, 1991). Learners must be in a relaxed state of positive expectancy for optimal learning to occur (Caine & Caine, 1991). An optimal learning climate is defined as, "the tone or atmosphere of the learning environment, degree of stimulation, enthusiasm, comfort and excitement generated by the teaching process" (Skeff, 1997). Creating positive learning environments can be achieved by adopting the following: learning is always goal-oriented; activities are relevant; learners feel motivated; learners feel safe, not threatened; and, learning is fun and challenging, such as hand-on activities and sensory stimulation (Taylor, 2008). Based on Heron's (1992) model, as discussed above, it is crucial for each learner to establish a relationship with their total learning situation because it is only when the *feeling mode* is firmly in place can the learner access the other three modes, such as thinking, of the learning model (Heron, 1992).

Two critical teaching strategies will be explored in more detail: capturing learners' attention and promoting greater involvement of learners. Since learners in non-formal settings often have the choice to attend an educational event, the educator needs to provide a learning experience that captures their attention (Jensen, 1994). As such, I use a strong "emotional hook" at the beginning of a learning experience in order to actively engage adult learners. For instance, in one of my programs, a relevant case study of a similar work environment is used to create immediate interest. It effectively engages the adult learners because it sparks a discussion about something that the learners can all relate to, namely, the work environment. Other techniques for capturing learners' attention and enhancing the learning experience are: generate curiosity; encourage positive team-bonding; provide relevant content; and give frequent feedback to keep learning challenging (Jensen, 1994).

There are many other strategies that promote greater involvement of the learner. When adult learners know *why* they are supposed to learn new knowledge, or a skill, greater involvement occurs. When this is stipulated at the onset, learners can engage in new learning activities because of the felt need to acquire new information or skills (Knowles, 1990). Relating to the earlier discussion, when adult learners recognize that they are *consciously incompetent,* and if they believe that the new knowledge or skills will positively impact them, they will engage positive

emotions, and thereby, be motivated to learn.

Given the time constraints inherent in non-formal learning, an educator may focus on content. This often leads to a less-than-successful educational experience for the learner. Time for personal involvement, questions and active engagement are critical strategies in non-formal learning settings. Strategies that have yielded successful learning experiences within my educational settings are providing the opportunity for learners to work in small groups, using scenarios and case studies within leadership programs, and allowing learners to creatively problem-solve and make independent decisions. The learning experience should also be fun to foster positive emotions such as pleasure and excitement. By adopting a learner-centred approach, learners actually see themselves as personally responsible for their learning; this results in increased engagement and positive emotions.

Another important strategy for promoting greater involvement of learners includes building rapport and developing trust with learners. When educators show a genuine curiosity in learners' needs and interests, and when they provide time for interaction within the learning experience, rapport is more easily achieved (Taylor, 2008). I use several effective strategies for developing trust with my learners. First, I strive to establish credibility by demonstrating behaviour that is consistent with my teaching objectives and organization's policies (e.g. "walking the talk"). Second, I aim to be knowledgeable in all of my subject areas to demonstrate competence. Several other strategies enable educators to establish credibility with adult learners, such as: listening, keeping commitments, talking-straight, declaring intent, and modelling appropriate behaviour (Covey, 2010).

Further, it is also important that educators recognize that their emotions and feelings impact the learning process (Taylor, 2008). When educators model behaviours and emotions that are desired amongst learners, and when they project positive feelings about both the learners and the teaching event, the learning experience is positively enhanced. Theorists suggest that these will increase the likelihood that learners will reciprocate in kind (Taylor, 2008). My experience supports this concept; feedback that I have received from many adult learners about my program aimed at ending violence and abuse supports the notion that showing passion and commitment toward the training subject positively impacts adult learners' emotions and their learning.

Another critical teaching strategy for educators is to regularly engage in a process of ascertaining learners' emotive states. This needs to occur at the beginning and throughout the teaching experience (MacKeracher,

2004). By developing an acute awareness of learners' emotional states, educators can effectively engage learners in positive emotions which will not only enhance their learning experience, but also their motivation and self-esteem (MacKeracher, 2004). Appraising learners' states can be achieved by observing their level of interest, such as observing learner eye contact, verbal interaction, and body language (MacKeracher, 2004). Additionally, learners must be given the opportunity to express emotion without inhibition as this will provide invaluable information to the educator.

Of equal importance, educators need to know how to recognize signs of distress. For example, learners' immature behaviour or resistance to learning can be signs of distress which require attention to learners' emotional needs. Educators can help learners reduce their stress levels by providing a supportive and encouraging learning environment that does not threaten them. The use of humour, or an "ice-breaker" exercise at the beginning of learning, allows learners to relax and engage more comfortably in learning activities (MacKeracher, 2004).

Teaching practices should take into account the role of emotions in learning so that memory retention can be enhanced (Peace, 2000). The emotional state of learners must be such that it is conducive to memory retention, a vital part of successful learning (Peace, 2000). When positive emotions are fostered and negative emotions are acknowledged and effectively managed, the neural traces in learners' brains increase in quality and strength, thereby affecting learners' ability to attend and recall what has been learned or experienced. In short, when memory skills are enhanced, so too is learning. When educators create enriched learning environments, the more the brain is used, and therefore, the more connections it makes (Peace, 2000). In fact, enriched environments can contribute up to a 25% increase in the number of brain connections both early and later in life (Kotulak, 1998). Educators, too, can assist learners to increase memory retention by restoring equilibrium, as discussed above (D'Mello & Graesser, 2012). By prompting learners to use thought, reflection and problem-solving throughout the learning experience, optimal learning can occur.

Research also proposes that some teaching strategies within non-formal learning settings are not recommended as they can lead to over-arousal or stress. Examples of strategies to avoid are: sensory overload, competition, exposure to inadequacies, and discounting of personal experience. When educators use these strategies, learners may withdraw or become self-defensive and appear to lack motivation. In addition, lack of sufficient information, boredom, under-stimulation, excessive

repetition, and non-productive and irrelevant activities will produce the same result as over-stimulation (Hart, 1983; Toffler, 1970; MacKeracher, 2004).

Meaningful learning experiences can be provided to adult learners when we attend to their emotions and focus on creating positive learning environments. As a result, adult learners in non-formal settings can benefit in the following ways: optimal learning will increase; learning issues will decrease; learners will enjoy their learning; memory skills will be enhanced; and, learners will feel good about themselves (MacKeracher, 2004).

Conclusion

Increasingly, educators are acknowledging the powerful role that emotions play in the adult learning process (Dirkx, 2008) and there is a growing recognition of emotion in various theories and models of adult learning (Merriam et al., 2007). Learning is an interpretative process, according to theorists, and one that is both emotional and cognitive (Fineman, 1997). There is a strong interrelationship between emotions and learning, and as Jarvis (2006) states, "emotions can have a considerable effect on the way we think, on motivation and on beliefs, attitudes and values" (p. 102). Emotion is important to learning as it impacts both the quality and strength of the neural trace or imprint in the brain, thereby affecting our ability to learn (Peace, 2000).

Educators need to be cognizant of learners' arousal, or emotional states, within the learning environment in order to enhance the learning process. According to Dirkx (2008), "helping learners understand and make sense of these emotion-laden experiences… represents one of the most important and most challenging tasks for adult educators" (p. 9). Fostering positive emotions and providing opportunities for learners to express emotions within a safe, supportive environment is necessary for optimal learning. Several teaching strategies are recommended for more effective teaching practice, such as: making activities relevant and challenging; capturing learners' attention; and, creating greater involvement of learners (Taylor, 2008; Jensen, 1994). Without question, educators can make a positive contribution toward learners' experiences within non-formal learning settings by understanding the role of emotion in learning and by incorporating effective teaching strategies.

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CHAPTER 3

THINKING BEYOND UNIVERSAL DISCOURSES REGARDING STUDENT-CENTERED LEARNING

INTRODUCTION

A common assumption prevalent within most contemporary discourses regarding effective post-secondary educational strategies is the importance of placing students at the center of their own learning. This "student-centered" paradigm is consistently contrasted with a nebulous yet nocuous "teacher-centered" paradigm in overly simplistic binary oppositions. Yet this binary is premised upon a false dichotomy, and the simplistic and reductive conclusions advocated by supporters of the student-centered paradigm fail to acknowledge what is AT stake when logical fallacies pervade educational research and practice. This chapter will explore the "grey area" between the two paradigms, suggesting that more can be gained when educators, in conjunction with their students, select teaching and learning strategies based on learners' needs and preferences, rather than overarching paradigmatic assumptions. I will attempt to answer a question which has dominated my own pedagogy: how might I teach from a place of authenticity while simultaneously selecting teaching methods which meet the needs of individual learners within specific learning contexts?

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THINKING BEYOND UNIVERSAL DISCOURSES REGARDING STUDENT-CENTERED LEARNING

"Being oppressed means the absence of choice"
-bell hooks, Feminist Theory: From Margin to Center

I am one year into my teaching career as an English instructor at a local community college, and I feel as though I have failed my students. This failure isn't due to a lack of effort on my part, however, so I must consider that perhaps it is my students who have failed me. Despite my best efforts I have been unable to successfully transition my introductory communications course away from a traditional teacher-centered model toward a more innovative and intellectually stimulating student-centered model, which is premised upon the constructivist notion that students learn best when they are actively participating in the learning process.

The course coordinator originally supplied me with learning materials which drew heavily from a traditional lecture and test teaching model, which has been dubbed a "teacher-centered" model since the teacher is perceived to be the most active and involved participant in this pedagogical method. Throughout my first semester of teaching I remained quite faithful to her materials, reticent to "rock the boat," yet I noticed my students' eyes glazing over, or moving slowly away from the front of the room and down toward their cell phones, laptops or iPads- the modern students' technological retreat from a boring lecture. It became clear to me that no one in the room was enjoying my approach, and so I tried to engage them in various ways: games, small group activities, partnered work, class discussions, student-selected writing topics and small research projects, yet I found their response was generally the same. Silence. Texting. Glaring. My initial disappointment was compounded when I asked other faculty about their own experiences working within a more active learning framework. Many, like me, found that these strategies did not change the learning environment within their classrooms. Some believed that the students were to blame.

"They just don't get it," my colleagues lament. "They don't even care."

Certain educational texts seem to back up this notion of the defective student. The authors of *Learning for Life: Creating Classrooms for Self-Directed Learning* quote American psychiatrist William Glasser in the introduction to their book, which reads as a laundry-list of quick-fix instructional approaches for frustrated educators. Glasser claims that:

The traditional school, immersed in stimulus-response theory, served its clients well when families stayed together, educators had discipline power, less violence appeared on television, and more students made an effort to learn. But now teaching is harder than ever. In spite of the great number of dedicated teachers who are committed to doing the best job within their power, even the best of them are confronted daily with increasing numbers of students who make little or no effort to learn. (as cited in Areglado, Bradley, & Lane, 1996, p. 17).

Glasser's nostalgic traditionalism aside, I know that despite what they watch on television, nearly all of the college students I have worked with have been motivated, intelligent individuals whom I quickly came to respect. I interpreted their silent resistance toward the student-centered paradigm as indicative of some deficiency in my own teaching ability, since the teacher-centered versus student-centered dichotomy leaves only two options available for me to place my blame: it is me or my students, my teaching or their learning which is problematic. A third option, and one which I will explore in this chapter, is the notion that this simplistic dichotomy itself is at fault. Perhaps my experience is not representative of a failed educator or failed students, but a cautionary tale of the harmful effects of faulty rhetoric and logical fallacy playing out on the classroom stage. Perhaps as a new teacher I was too eager to accept that the "paradigm shift" (a favourite buzzword in the field of education) toward student-centered instruction was as perfect and simple as its advocates make it out to be.

My desire to implement a student-centered methodology originated from the mandatory professional development courses I attended as a new instructor. My college, along with most contemporary educational institutions in the Western world, has made a concerted effort to invert the instructional binary, ceaselessly advocating for a student-centered instructional paradigm (Boud, 2006, p. 19). This shift in focus represents one of the largest changes to post-secondary education in the past 30 years, according to Paul Ashwin in the introduction to *Changing Higher Education: The Development of Teaching and Learning* (2006). Maryellen Weimer interprets the shift toward student-centered instruction as a reaction against an over-emphasis on the teacher and teaching practice within educational research. Weimer explains that "for many years the pedagogical focus was on teaching. We assumed (and not without justification) that if teaching improved, so would learning" (2013). Weimer goes on to explain that beginning in the 1980s, researchers started to believe that the literature had been too heavily focused upon pedagogical practice, and so turned their attention towards

learners and learning, rather than teachers and teaching. Weimer concludes, "Our preference for and focus on learning has now tipped the scale in the other direction."

This over-emphasis on student-centered instruction involves a host of definitional and pragmatic concerns; the most troublesome for me is the assumption that students will always prefer this instructional model. Has anybody bothered to ask them? I must admit that I inverted the binary without consulting my students, and so is it surprising that I met with the same passive resistance that I felt when I taught from a highly traditional, empirical teaching model?

Given these issues, it is natural that researchers have started to explore the idea that a universal acceptance of the student-centered paradigm is problematic for a number of reasons. The term 'student-centered' has become so ubiquitous that author David Boud describes it as the "unquestioned mantra" of higher education, arguing that "institutional texts and papers in the literature assume we know what we mean by learner-centered" (2006, p. 19). This assumption is precarious, for 'learner-centered' innovations have evolved over time, and currently refer to not one but many types of teaching innovations which are underpinned by multiple, even conflicting philosophical assumptions. Susan Lea, David Stephenson and Juliette Troy claim that "one of the central problems with both theoretical and applied work in this area is that of definition" (2010, p. 322). For some, the student-directed learning initiative is fulfilled when the student has freely selected his or her program of study. For others, student-directed learning is only achieved when students control the subject matter, learning strategies, assessment materials and subsequent evaluations of their learning. Clearly these characterizations diverge drastically, and to generalize about a concept which is so broadly defined can only lead to an unclear denouement. Teacher-centered instructional practices are also defined in various ways, but generally entail any sort of lecture-and test model of instruction. This definition is also problematic, for every lecture is not identical, and I do not accept the notion that students are completely passive when listening to all lectures. I can recall many moments in my own learning when I felt my mind racing as I listened to a skilled public speaker. Silently I would connect their words to my own experience in the world, outlining the speaker's argument and challenging his or her assumptions in brief notes, which I would later attack in a unique thesis which I supported with logically developed arguments. I may have been silent, but I was certainly not passive in these moments.

Although the student-centered and teacher-centered paradigms suffer from unclear definitions, educational literature continues to position them as antithetical to one another, ignoring the possibility that commonalities may exist between these two false polarities. In his inspirational book *The Courage to Teach: Exploring the Inner Landscape of a Teacher's Life*, originally published in 1998 and updated in 2007, Parker J. Palmer laments that academics tend to "think the world apart." Researchers analyse phenomena "as this or that, plus or minus, on or off, black or white," essentially fragmenting reality into a series of either-ors (p. 64). This fragmentation is at play in the teacher-centered and student-centered paradigms, which are invariably contrasted in educational research, with the former cast as an outdated, irrelevant and selfish mode of instruction rooted in an empiricism which favours an authoritarian teacher at the expense of disenfranchised students, and the later positioned as a new and exciting methodology which meets the needs of all learners, creating intellectually astute individuals who can construct their own understanding, self-direct and ultimately succeed in a modern, knowledge-based society. While the theory makes this dichotomy out to be a simple one, and the switch from a teacher-centered model to a student-centered paradigm equitable, unproblematic and seamless, my practice has proven that this isn't quite the case, and I have come to suspect that the either-or thinking represented in this paradigm shift is to blame. Positioning teacher-centered and student-centered learning as mutually exclusive and collectively exhaustive categories represents a classic example of a false dichotomy, for teaching and learning are not antithetical and there are more factors at play within a given learning context than either an active teacher or an active student. It is worth noting that rhetorically, false dichotomies are often utilized to persuade individuals to believe that one category is far superior to its counterpart. My tacit acceptance of the student-centered learning model as universally superior to a teacher-centered paradigm was far too simplistic a conclusion. My failure was in my lack of criticality as I attempted to serve my students in the best way possible, and in my reticence to consult them about their own preferred ways of learning for fear that they would believe me to be incompetent.

As I've continued to research the student-centered paradigm, I've come to suspect that researchers juxtapose this new model against its traditional counterpart in order to simplify the paradigm shift so that all educational stakeholders can understand the change. When the paradigms are defined in broad terms the distinctions between them can appear relatively straightforward. Yet when the two are contrasted in more specific terms, the distinction quickly becomes less logical. To provide a

specific example, Areglado, Bradley and Lane claim that a teacher-centered educator will ask students to "read for mechanical purposes, to unlock words," while a student-centered educator will ask students to "read for depth, to unlock meaning" (1996, p. 22). I choose this example because this simple dichotomy fails to recognize that students will be unable to analyze or evaluate a text if they are unable to comprehend it on a basic level. As a responsible English instructor, I must ensure that my students are able to read and write mechanically as well as analytically. If they choose to construct their own definitions of words and create their own grammatical rules, they will not become effective communicators.

This is where the irony underpinning the shift toward a student-centered paradigm really hits home, for more often than not, the techniques advocated by the student-centered paradigm fail to account for the unique needs of individual learners within culturally and socially specific learning contexts, and thus a strict adherence to this paradigm will always fail, for it fails to recognize that no single method will work in every situation, for every learner, all of the time. It is for this same reason that the traditional teacher-centered model has come under attack in recent decades. Before I brand myself a failed educator and/or my students failed scholars, I must consider that my true role as a teacher is not to blindly adopt the nonpareil of the day, but to "create conditions that can help students learn a great deal," for as Parker Palmer puts it, "teaching is the intentional act of creating those conditions, and good teaching requires that we understand the inner sources of both the intent and the act" (1998, p. 6). Rather than assuming what those conditions might be, I think it is pertinent to consult the students for whom I am attempting to create ideal learning conditions. In their 2010 study, authors Susan Lea, David Stephenson and Juliette Troy did just this. The authors suggest that the transition towards a student-centered learning model represents an effort to commercialize higher education, to make the learning experience friendlier to students, the customers in this corporate education model. The student-centered approach thus becomes an effort on the part of colleges and universities to adapt to more inclusive student populations, the suggestion being that the student-centered model is more appropriate for adult, international and disabled learners. Yet when the authors polled students attending a university which is heavily rooted in a student-centered approach, many students expressed a skepticism and reticence to accept a fully student-centered learning model:

The main concern was that students might be told to 'just go away and find out without sufficient guidance, or before we have the necessary skills under our belt' (female, year 2, traditional). A secondary concern

was that individual students would require different levels of guidance, putting a strain on academic staff. In particular, a couple of students felt that such an approach, if not implemented carefully and with adequate resourcing, may serve to further advantage very able students over those who were less academically able or had disabilities. (Lea, Stephenson, & Troy, p. 328-9)

Remarkably, these students were able to identify the clear pitfalls of blindly adopting this methodology. My own experience in the classroom provides clear evidence that a student-centered paradigm does not always meet the needs of marginalized learners, and can in fact lead to increased student anxiety and stress. An excessively self-directed classroom may leave students feeling quite directionless and overwhelmed. For example, when I assigned an open topic essay assignment to a group of first year communications students, the entire group became frozen in a sense of stasis, overwhelmed by such a daunting task. As a responsible educator I needed to guide them through the writing process, walking them through each step so that they arrived at an end product which they could take pride in, rather than arriving at an emotional meltdown and a failing grade. Some of this teaching involved explicit instruction delivered in a lecture format, yet students quickly applied the content of the lecture to their own unique papers. We were essentially sliding between the teacher-centered and student-centered polarities, utilizing teaching strategies which achieved the highest level of success depending on the students' comfort levels, familiarity with the subject and so on.

The conclusion that the teacher-centered and student-centered paradigms are not mutually exclusive dichotomies was also arrived at by the astute students interviewed in Lea, Stephenson and Troy's study, for most of the focus groups "came up with the idea of a learning/teaching continuum. […] Most students felt that neither end of the continuum was ideal. The teacher-centered end would be overly prescriptive, while the student-centered end would be overly open, causing the student feelings of anxiety and insecurity" (2010, p. 326). Neither end of the spectrum is ideal. Thus my attention has shifted to the middle, the "grey areas" between this two polarities.

Finally I return to the question I pose at the beginning of this chapter: how might I teach from a place of authenticity while simultaneously selecting teaching methods which meet the needs of individual learners within specific learning contexts? The incredibly simple conclusion is that I ask them, the students. Each class I teach will be comprised of a group of unique individuals, with unique needs and preferences. Rather than treating teaching and learning like a piece of one-

size-fits-all clothing (which fits everyone poorly) I will put more energy into building honest and open relationships with my students. While I will continue to read educational research and to dialogue with my colleagues, I will no longer assume that they know what's best for my students. I will work hard at creating an open and safe learning community so that my students feel comfortable telling me what is best for them. If I can chip away at their defensive barriers, perhaps they will take their eyes away from their cell phones and help me to identify their weaknesses and fears. Together we can work in a way that truly empowers them to take control of their learning in the way that the student-centered paradigm hopes they will. Yet if I continue to implement teaching practices without bothering to get to know my students in this way, then even the most student-centered instructional approach remains rooted in the authoritarianism that the student-centered initiative is trying to eliminate. I recognize that creating this open dialogue won't be easy. Drawing students into the conversation will take time, for building trust is not something that can happen instantly. The process will be foreign to students and they might be suspicious, but if I am honest about my intentions and open to changing my strategies to respond to their needs and preferences, we will not fail.

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CHAPTER 4

TRANSFORMATIVE LEARNING THEORY: REFLECTIONS FOR TRANSFORMATIVE EDUCATORS

Transformative learning theory has been frequently revised, challenged, debated, and validated, since its introduction by Jack Mezirow nearly forty years ago (Taylor, 2008). Adults bring knowledge and experience to the learning context which makes their learning uniquely different from that of children (Mezirow, 2000). Transformative learning is a process by which previously uncritically assimilated assumptions, values, and beliefs come to be questioned and justified, or possibly changed. "In transformative learning, one's values, beliefs, and assumptions become the lens through which personal experience is mediated and made sense of" (Merriam, 2004, pg. 61). When adults are faced with a new experience that goes against their previous understanding, they may, if the conditions are right, transform their underlying perspectives through a process of critical self-reflection and critical discourse with others. This process ideally leads to the development of a new and more integrated frame of reference which guides future action (Mezirow, 2000).

It is recognized that fostering transformative learning involves more than adopting a few new teaching strategies. It involves teaching from a specific educational stance, one where the educator becomes critically self-aware of his or her own assumptions and biases and how they may impact learning and teaching (Taylor, 2006). This chapter is intended to provide an overview of transformative learning theory and introduce some of the issues and challenges to fostering a transformative learning practice. Its goal is to emphasize to transformative educators, the

importance of engaging in critical self-reflection as a starting point to fostering a transformative practice.

Evolution of Transformative Learning

Mezirow's transformative learning theory has inspired many alternative perspectives, some in response to criticisms of his earlier work and others as a result of findings from subsequent research. Mezirow has been criticized for being too rational, for failing to adequately recognize the role of cultural context, emotion, and relational ways of knowing in the adult learning process, and these issues remain at the center of debates today (Cranton, 2011). Key differences in the various alternative theories are whether the goal of transformative learning is individual change or social change. Mezirow views the individual as the agent of change; whereby individual transformation precedes social change. Other perspectives see transformative learning as being as much about social change as individual transformation (Taylor, 2008).

EARLY INFLUENCES ON TRANSFORMATIVE LEARNING

Mezirow's transformative learning theory was primarily influenced by the work of Thomas Kuhn (1962), Paulo Freire (1970), and Jürgen Habermas (1971, 1984), whose works led to Mezirow's introduction of transformative learning theory in 1978.

Kuhn's Paradigm (1962)

Kuhn's (1962) model of paradigm (universally accepted understandings) and paradigm shift influenced Mezirow's early model of transformative learning. According to Kuhn, science is characterized by long periods of "normal science" where scientists engage in ongoing research on already existing theories. These periods are punctuated by tumultuous periods of scientific revolution (paradigm shift) where new discoveries take science into a whole new direction. New paradigms are usually initially rejected and debated before being accepted by the scientific community. Social and political factors also influence these debates. If accepted, new paradigms make previous paradigms obsolete (Owens and Valesky, 2011). Kuhn's theory influenced Mezirow's understanding of frames of reference, perspective transformation, and formed the basis for transformative learning theory (Kitchenham, 2008).

Paulo Freire (1970)

Freire likened traditional education to a banking system, where educators deposit knowledge and students are passive recipients. He saw this as problematic because it did not give students the opportunity to become autonomous thinkers. Freire's 'conscientization' theory emphasized empowerment of learners and the importance of developing critical awareness of underlying social, political, and economic assumptions. By becoming more critically aware of the oppressive elements of society, individuals become more empowered to transform both themselves and society. Teaching, according to Freire, is inherently political and influences the types of texts, activities, and resources that are used. Therefore, it is imperative for educators to become critically aware of their own underlying assumptions. Freire's social-emancipatory theory influenced Mezirow's notions of "disorienting dilemmas" (cognitive dissonance), critical self-reflection, critical discourse, and the importance of developing awareness of one's existing habits of mind (Kitchenham, 2008).

Jürgen Habermas (1971, 1984)

Habermas' domains of learning also influenced Mezirow's model of adult learning. Habermas discusses three domains of learning: instrumental, communicative, and emancipatory.
Instrumental learning involves validating and accepting truth claims to ascertain whether or not an assertion is what it is purported to be (Mezirow, 2009). Communicative learning recognizes the importance of interpersonal communication in the learning process. Habermas stressed the importance of people communicating with each other in order to come to a common understanding. Communicative learning involves understanding other people's frames of reference and it is a very subjective process. People may misinterpret events or stop questioning the world, if they are unaware of their own distorted assumptions (Kitchenham, 2008). Ideas may be validated, justified, or rejected through the process of critical discourse. Ideally, a consensus is reached if the conditions are right (Mezirow, 2009). Emancipatory learning derives from a questioning of both instrumental and communicative learning. Achieving emancipatory learning involves the capacity to become critically self-reflective of ourselves, and our social and cultural contexts. If we do not question current theories and accepted truths we may not realize how we are constrained by them. Mezirow's examination of these

domains led to his description of perspective transformation (Kitchenham, 2008).

CORE ELEMENTS OF TRANSFORMATIVE LEARNING THEORY

We make meaning out of our experiences, and as a result develop frames of reference for understanding the world, much of which is uncritically assimilated (Cranton and Roy, 2003). Critical self-reflection and questioning of our existing assumptions and critical discourse with others are essential to perspective transformation and transformative learning.

Frames of Reference

Transformative learning occurs by transforming our existing frames of reference (meaning perspectives) which are the structures of assumptions through which we understand our experiences and make sense of the world. Frames of reference are both culturally assimilated and learned from our parents and caregivers. These assumptions and expectations form the lens through which we understand the world (Mezirow, 2000). Frames of reference may be: rules, codes, cultural canon, psychological schemas, worldviews, religious doctrines, philosophical stance, aesthetic values, and political perspectives (Mezirow, 2009). Frames of reference help explain how we categorize experiences, beliefs, people and ourselves. Frames of reference are composed of two elements: habits of mind and points of view.

Habits of Mind

Habits of mind (meaning schemes) represent our habitual ways of thinking and feeling and are influenced by our assumptions and codes about the world. Mezirow (2000) describes six broad habits of mind that we use to interpret our experiences: epistemic (ways of knowing), sociolinguistic (social and cultural norms), psychological (self-concept and personality), moral-ethical (conscious and morality), philosophical (worldview), and aesthetic (taste and standards). Habits of mind are subject to on-going change as we reflect upon and possibly modify our assumptions about our problems and experiences. (Kitchenham, 2008).

Points of View

Habits of mind are expressed more specifically as points of view; our particular judgments and beliefs about particular individuals or groups. Points of view are often outside our conscious awareness (Mezirow, 1997). One can appropriate someone else's point of view, but not their habit of mind. Habits of mind are more durable than points of view (Mezirow, 2000).

Perspective Transformation

Perspective transformation occurs in one of two ways: epochal or incremental. Epochal transformations may occur as a result of an acute personal crisis, such as a divorce, the death of a loved one, or a natural disaster. These are more difficult and painful transformations, and involve a critical and comprehensive re-evaluation of oneself (Kitchenham, 2008). Epochal transformations can cause an individual to question their core existence (Mezirow, 1997). The second form of perspective transformation involves small, incremental shifts in meaning perspective, which result in more or less painless accumulations of transformations, as individuals come to recognize that previous ways of knowing are inadequate. Such deep transformation goes beyond simple changes in knowledge or self-perception (Kegan, 2000).

Perspective transformation is enduring and irreversible and may occur when an individual encounters a problem that cannot be solved given their current understanding based on previous experiences (Taylor, 2000; 2008). Transformation will not occur by simply rationalizing a new point of view without understanding the underlying assumptions. It is human nature to reject ideas that go against current understandings, but "when circumstances permit, transformative learners move toward a frame of reference that is more inclusive, discriminating, self-reflective, and integrative of experience" (Mezirow, 1997, p. 5). People choose to act or not act when faced with an experience that contradicts their current way of knowing (Mezirow, 1978). Since experiences are socially constructed, they can also be deconstructed and acted on through self-reflection and critical discourse (Taylor, 2009). "There is an instinctive drive among humans to make meaning of their daily lives. Because there are no enduring truths, and change is continuous, we cannot always be assured of what we know or believe. It therefore becomes imperative in adulthood that we develop a more critical worldview as we seek ways to understand the world" (Mezirow, 2000, p. 8).

Learning Processes

Mezirow describes four learning processes that occur during transformative learning: elaborating an existing point of view, establishing a new point of view, transforming a point of view, or transforming a habit of mind by becoming more critically aware of underlying assumptions. Mezirow (1997) uses the concept of ethnocentrism to explain these processes. We may seek more information about a group (elaborate an existing point of view), encounter a new group which may transform our point of view either positively or negatively, or have an experience in another culture that results in us re-adjusting our point of view and becoming more tolerant and accepting. Finally, we might transform our habit of mind by becoming critically reflective of our underlying biases (Mezirow, 1997).

Critical Self-Reflection

Critical self-reflection is at the core of transformative learning theory and is central to perspective transformation (Kitchenham, 2008). "The process is not about changing one's mind from one thing to another, or adopting the "right" point of view, but rather about becoming more open" (Cranton and Roy, 2003, pg. 88). Frames of reference are transformed through critical reflection on our own and others' assumptions and beliefs. This occurs through critically reflecting on paradigms, ideologies, and canons, and how they have shaped and limited our points of view. Critically explored assumptions may relate to social, cultural, economic, political, educational, or psychological systems (Brookfield, 2000). According to Merriam (2004), critical reflection is a developmental process requiring a mature level of cognitive development in order to engage in both critical reflection and rational discourse for transformative learning to occur. Greater life experience provides a "deeper well from which to draw on and react to via dialogue and critical reflection" (Taylor, 2009, pg. 6). Critical reflection may not lead to transformation, but when it does our frames of reference become more open and justified (Mezirow, 1997).

Mezirow (2000) describes three types of critical reflection: content, process, and premise reflection. Content reflection involves thinking back about the experience itself and what we already know and involves learning within our current meaning schemes. It may result in transformation of our point of view. Process reflection involves thinking

about how to handle an experience and involves learning new meaning schemes. An experience might cause a transformation in meaning scheme, if other factors are revealed during the process, that cause one to re-evaluate an existing point of view. Both content and process reflection, are straightforward forms of transformation. Premise reflection is much deeper and more complex and is essential for perspective transformation. Premise reflection involves considering the broader, systemic assumptions operating within our value systems. Such reflection may involve reflecting on personal, systemic, cultural, epistemic, or moral assumptions (Kitchenham, 2008; Mezirow, 2009).

Critical Discourse

Meaning becomes significant to the learner through critical discourse with others. We learn by examining the related experiences of others to find a common understanding that holds until new evidence becomes available (Mezirow, 1997). Taking the perspective of another is an interpersonal process which involves drawing on one's knowledge of both the self and the other speaker, and using that feedback to understand the other's perspective. It involves topics referred to from a particular frame of reference, which must be assessed in relation to that frame of reference (Mezirow, 2003). "What one talks about needs to be distinguished from what it means to the speaker and why he or she talks about it" (Mezirow, 2003, pg. 60). Discourse allows us to validate what is being communicated; our only other recourse is to turn to tradition or an authority to make judgments for us (Mezirow, 1997).

Empathy, self-awareness, and emotional intelligence are qualities that enable adults to fully engage in critical discourse. Simply engaging in discourse is insufficient for perspective transformation to occur. Optimal conditions are necessary, such as making sure the participants have accurate information, an inclusive context, and that the participants have equal opportunities to question, challenge, and reflect, and let others do the same (Mezirow, 2009).

THE TRANSFORMATIVE EDUCATOR

"Most educators profess to value social justice, fairness, and equity and claim to demonstrate such values in their teaching. On close examination, we often find, a disconnect, between what teachers say they value and the values their practice demonstrates. As a result, we suggest reflections and transformation of self before we can begin to teach for

transformation" (Johnson-Bailey & Alfred, 2006, pg. 55)

"Fostering transformative learning is purposeful, in the sense that it is teaching for change" (Taylor & Jarecke, 2009, pg. 7). This is important, since the goal of transformative learning is developing autonomous, socially responsible thinkers (Mezirow, 1997), a requisite for 21st century learning which requires critical thinking, innovation, and creativity (Hargreaves & Shirley, 2012). "Transformative learning is first and foremost about educating from a particular educational philosophy. It is also not an easy way to teach. Wearing the title…of transformative educator should not be taken lightly…or without considerable personal reflection. It means asking yourself, Am I willing to transform in the process of helping my students transform?" (Taylor, 2008, pg. 13).

Fostering a transformative learning practice is seen as a conscious and deliberate strategy which involves political awareness and the creation of a safe and inclusive learning environment (Johnson-Bailey & Alfred, 2006). Kreber (2004) states that teachers need to be more concerned about why they teach rather than the strategies they use, in order to teach for transformation. MacKeracher (2012) writes about the importance of understanding the personal experiences the transformative educator brings to the classroom. It is this learning past that impacts our present and future learning (Kegan, 2000). Developing an authentic teaching presence (a state of alert awareness), which includes reflection, receptivity and connectedness is important to fostering trust and relationship with students. When teacher's self-awareness is out of sync with the learners and learning context, "there is little energy or psychic space left for being present to the learners and the learning" (Rogers & Raider-Roth, 2006, pg. 273).

Taylor (2008) states, that the role of the transformative educator involves promoting inclusion (giving voice to the historically silenced), empowerment, and increased multi-cultural awareness. It also involves becoming aware of one's own teaching and relationship style, and developing a practice that is "comfortable to them and congruent with their values, beliefs, and philosophy of teaching" (Cranton, 2006, pg. 10). Transformative educators also have an ethical responsibility to consider the appropriateness and possible implications of their teaching methods. The teacher's position, power, and perspective are always present in the classroom; education is never value-neutral. "Even if the educator sees herself as remaining neutral, she is thereby supporting the status quo which is, in itself a political stance" (Cranton, 2006, pg. 193). Transformation must come from within. "As educators, our first responsibility is to educate ourselves" (Ettling, 2006, pg. 65).

Power, according to Kilgour (2011), is inherent in all aspects of the teacher-student relationship and the traditional learning environment. Traditional social positions and power relationships between teacher and student should be rejected to enable more collective ways of knowing. This involves all aspects of the institutional setting, and is reflected in the types of texts, activities, and assessments teachers choose. Educators "must bring into clarity the ideological context of the adult education classroom by questioning, critiquing, and sometimes even rejecting the social positions of teacher and student (Kilgore, 2011, pg. 420).
The teacher-student relationship should be on equal footing; it should move towards a more horizontal relationship (Taylor, 2009). In the transformative classroom, the teacher acts more as 'facilitator or provocateur' rather than from the more traditional and hierarchical power dynamic. Such an educator encourages norms of respect and collaboration (Mezirow, 1997). Tennant (2012) writes that the route to this self-knowledge involves deconstructing the cultural, political, and economic frameworks, that define who we are, and influence our actions and practices. Such work involves differentiating between one's individual sense of self as an educator and the collective persona of 'teacher' (Cranton, 2006). Educators need to develop awareness of how ideology exists within us and may work against furthering the interests of others. Without questioning and clarifying assumptions, the process is possibly reflective but not transformative. Deep critical reflection goes beyond considerations of social, political, and economic systems to uncover the inequalities and oppression that lies beneath the surface (Brookfield, 2000; 2009).

Any educator wishing to facilitate transformative learning, might consider Kegan's (2000) bridge metaphor. "First we need to know which bridge we are on. Second, we need to know how far along the learner is in traversing that particular bridge. Third, we need to know that, if it is to be a bridge that is safe to walk across, it must be well anchored on both sides, not just the culminating side" (Kegan, 2000, pg. 6). Ettling (2012) writes that our first job as educators is to educate ourselves. "Naming and describing our frames of reference about education and our role within that world is part of our transformative journey as an educator" (Cranton, 2006, pg. 193).

MY OWN JOURNEY OF TRANSFORMATION

The process of researching and writing this paper has caused me to critically reflect on my own transformative journey as a student and educator. The more I read about transformative learning, the more I began to question my own assumptions and biases. I questioned my choice of words for this paper and my decisions to include or exclude certain topics. Originally, I had intended to add a section on specific strategies for fostering transformative learning in the classroom. In the end, I decided this may in some way be imposing my own frames of reference on others, so I chose to leave this out. Though, I will suggest the work of Patricia Cranton (2006) and Mezirow and Taylor (2009), as good starting points for learning more about developing a transformative teaching practice. As an educator, I am now viewing my teaching practice through a 'transformative lens', in that I am trying to become more critically aware of the underlying biases my choice of texts and activities may bring to the learning context. Additionally, I am reflecting more on how my life experience may impact by expectations for learning and relationships with my students. For example, the fact that I am a parent changes how I connect and interact with my students. I have been teaching for about 20 years now and my practice has undergone significant transformation during that time, but transformation is a life-long process.

CONCLUSION

Transformative learning theory provides a significant model for adult learning. Mezirow and others have identified the importance of critical self-reflection on assumptions and critical discourse as being important aspects of the adult learning process. Adopting a transformative teaching perspective goes beyond trying on new strategies and requires the educator to develop awareness of his or her underlying assumptions, biases, politics, and power relationships. "Learning who we are as teachers-within the community of teachers and also as individuals- is a transformative journey" (Cranton, 2006, pg. 196).

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ROBIN HENSHAW

CHAPTER 5

CONSIDERATION OF THE PHYSICAL ENVIRONMENT: THE KEY FOR SUCCESS IN ADULT EDUCATION

Personal Experiences

As a teacher of adult learners, both in Canada and abroad, I have been fortunate to have taught in many different environments, each with their own unique physical aspects. Not having any formal education on teaching when I started, I had the luxury of learning naturally, by trial and error. Some environments supported adult learning better than others, but in general, I had little choice and had to work with what I found in each setting.

One experience in which I had complete control over my environment was when I taught conversational English to businessmen and women in the afternoons and evenings in Taiwan from 2004 to 2007. The locations I chose for our classes were quaint, unique coffee shops, sensing that a relaxing environment for these busy students would result in long-term clients, as they would have a positive feeling when reflecting on our class. My favourite one was called Cats, and cats literally wandered around the shop. In these coffee shops, I would sit across the table or couch from the students over a cup of java, which often had fancy designs created by swirling steamed milk with coffee, and we would carry out our conversation class. This environment was conducive to adult learning. Both the students and I enjoyed this setting. After reflecting on what I have learned about adult learners, I understand that the answer was not exclusively in the coffee; my conversation classes adopted the facilitated teaching model where students directed their own learning

(Knowles, 1980); I had students select the topic of each class, focused on student-led discussions, and the seating arrangement - sitting across from each other - allowed for discussions to flow naturally (Renner, 1993; MacKeracher, 2004). Despite the success of this particular class, I must offer one point of caution, especially to fellow female teachers: because of this non-traditional, casual class setting, I had to be careful to maintain professional boundaries with my students. I remember one time politely declining an invitation to the hot springs made by one of my male students. This aside, it is amazing how placing my students in this casual, relaxed environment resulted in engaged, relaxed and talkative adult learners.

In contrast, the private schools I taught at in Taiwan had lecture-style set-ups: the typical design popular in North American classrooms with individual desks arranged in rows each with a plastic movable chair. My students appeared lethargic, but tried to participate when I gave them the chance. I spent a lot of energy trying to spark their enthusiasm but I was not giving them enough leadership. This was my first experience teaching, and I never thought to rearrange the desks. Besides the classroom set-up, the other main factor for the students' level of fatigue was that they were tired from working all day before attending our evening class. Since adult learners often have demanding schedules, class needs to be an energizing experience that they look forward to. This can be done by making a few adjustments to ensure a facilitative model of teaching, and rearranging the chairs and desks for activities that support this model.

When I moved back to Canada, I continued with some tutoring, mostly for international students preparing for English proficiency exams required by post-secondary institutions. I held my sessions in a public library study room where the students and I sat at a table beside each other. Although students seemed serious and focused, I think this environment would work for driven students hoping to meet a deadline.

Also in Canada, I started teaching adult international students at privately funded schools. I taught at schools that had classroom setups in lecture-style rows, and also at those that had u-shaped tables. The u-shaped tables were solid and did not have moveable sections, with the open end of the u facing me, the facilitator, and the projector screen behind me. I found a distinct difference between these two seating arrangements, lecture-style and u-shaped, which deeply impacted the learning and comfort level in the class.

Firstly, in the schools with the U-shaped tables, the students were more engaged, and participated without much encouragement, despite their fatigue from late nights Skype conversations with family. I found

myself naturally becoming a true facilitator, with students providing input and even leading the course of the discussion (Knowles, 1980; MacKeracher, 2004). Whereas in the school with lecture-style seating, I had to fight off the instinct to play the role of lecturer to avoid passive, unengaged students; frequently in this mode of teaching, combined with the classroom set-up, students who sat beyond the first row appeared lethargic and unengaged and participated much less than those in the front row. When I had students do group work I found results similar to what I experienced at the schools with u-shaped seating; that is, students, though shy at first in the comparatively intimate setting, participated more in discussions or debates, and seemed to enjoy class.

Chapter Topic

This chapter will explore both practical and theoretical considerations pertaining to physical aspects of the classroom environment as it affects adult learners, such as desk and chair arrangements. The information in this chapter is not focused exclusively on English Language Learner classes, but that is the context I write from. In short, I will explain how the seating arrangement in a classroom directly influences the dynamics of interactivity between a teacher and students, which in turn affects learning outcomes. My background has been mainly teaching ESL to both children and adults, so these experiences inform my opinions; therefore, I draw on both personal teaching experiences and on related research. Although this chapter focuses on adults, based on my experience teaching children, I believe the information presented may be useful to those that teach any age group. Note that my discussions refer to a class size of approximately 20 students, although adaptations can be made for slightly larger or smaller classes.

My Classroom

I am currently a Professor of English as a Second Language (ESL) and teach English for Academic Purposes courses (post-secondary English preparation courses) to international students, who are English Language Learners (ELLS, or ESL students), at a community college. My students are adults and mainly fall into the post- high school age category: approximately 18 to 24 years old. The physical environment or arrangement of the classrooms I teach in, shared by other teachers from different faculties, are known as lecture-style seating; the set-up includes

desks and chairs arranged in rows. Fortunately the desks and chairs are movable, which gives me the option of re-arranging them to suit my lesson. Despite my belief in a teaching model that relies on interaction between both teacher and students, I often find myself delivering a lecture-style lesson due to the arrangement of the desks and chairs. In other words, in some classes I do most of the talking, and the students do most of the listening, which is not the best method for teaching adults.

Malcolm Knowles was a very influential American Adult Educator and educational theorist of adult education known for his work on creating a learning theory for adult education called *andragogy*, as distinct from pedagogy (a learning theory for children), in the second half of the 21st Century (Knowles, 1980). Knowles' theory underscores the importance of self-directed learning for adults. He argues that is difficult for students to be self-directed in their learning when being lectured to. I notice that in my lecture-heavy classes, students often withdraw both mentally and physically (head on the desk), and become disengaged from the lesson until I have them work in small groups as active participants in their own learning. I realize there are many other variables besides the seating arrangement that contribute to student loss of interest or focus in class, including fatigue, lack of physical exercise outside of the classroom, adjustment to a new culture (with international students), and relationship issues. Although these are also important considerations, my focus in this chapter is on understanding the impact of the physical environment of the classroom and how it can be adjusted to maximize adult learning.

Background

My argument, developed from both my experience teaching adults and current research, is that the physical environment, specifically the arrangement of desks in classrooms, needs to be set up in a way that supports learning activities that allow the adult student to be a participant in their own learning. For example, if students are seated in lecture-style seating, the hierarchy of teacher above student may discourage students to participate; in other words, if the focus is on listening and taking notes rather than discussing issues as a class, students will not be as engaged. Furthering my argument, Hill and Epps (2010) found that the physical environment was the biggest factor in determining student satisfaction in post-secondary schools and even influences how students rate their teachers. They performed a qualitative study, using questionnaires with a sample of over 200 university students in the U.S. to determine the impact of the physical classroom environment on college student satisfaction and

students' evaluations of teachers. The results of the survey showed that the most important factor of the physical environment, more than technology, is comfortable seating. From my experience, and according to Knowles' (1980) research on andragogy, the classroom arrangements that promote learning are those that facilitate teacher/student-led discussions and presentations, with a focus on the students researching and delivering the information. For example, U-shaped, or circular table/chair arrangements connect students and teachers both physically and mentally and invite participation. First it is important to define some ambiguous terms that are key to this topic before getting into the research and its implications.

Definitions

Facilitator: In this chapter, the term 'facilitator' will refer to the learner-centred teacher (Knowles, 1980; MacKeracher, 2004) who "focuses on students' analysis of their experience and encourages them to become increasingly self-directed and responsible for their own learning" (as cited in Renner, 1993, p. 2).

Adult Learners: When I discuss ideal environments for adult learners, I am relying on the informed assumptions of adult learners from Knowles' (1980) Andragogical Model:

- Adults are self-directed
- Adults draw from life experiences
- Social roles help to determine an adult's readiness to learn
- Adults are problem-centred rather than subject-centered
- Adults are internally motivated to learn
- Adults need to know why they need to learn what they are learning

The Physical Environment (of the classroom): I rely on a couple of definitions to fully explain the use of the term 'physical environment'. In broad terms, the physical environment can be defined as "anything affecting anyone's physical comfort in the classroom" (MacKeracher, 2004, p. 186), whereas Merriam and Brockett (2007), heavily cited proponents of adult education, describe it as the fundamental goal of an ideal classroom arrangement, stating that it "centres on creating a climate in which both learners and teachers are able to engage in genuine exchange" (p. 150).

The element of exchanging information is key in adult learning, as

adults need to be able to draw from and share life experiences, applying them to their learning (Knowles, 1980). Intuitively, it is most natural for interaction to occur when people are sitting in a group arrangement where everyone can see, hear, and interact with each other; thus, discussions in a classroom are no different.

To get a more robust, interdisciplinary definition of physical environment beyond the classroom, MacKeracher (2004) refers to the study of ergonomics, which addresses aspects that influence the efficiency of people in their working environment. There is a strong commonality between the goals and the abilities of both the classroom definition and Ergonomics: each focuses on increasing the quality and productivity of work/learning in adults.

Research

When I taught adults, considering the Assumptions of Adults (Knowles, 1980) along with a physical classroom set-up, such as u-shaped tables, or circles, and working on problem-solving issues, students were more engaged. Since my personal experiences are much too narrow in scope and my sample size is too small to generalize my findings, I looked to research to support and explain my observations teaching adults in different physical environments. If we consider students as workers (MacKeracher, 2004) then we can look to the study of ergonomics, for suggestions on how to increase students' rates of learning by altering the classroom arrangement.

Looking at two different theories related to increasing worker productivity, it is not surprising to find that physical environment plays a key role. Herzberg (1987) studied factors that affect human behaviour and the influence they have on motivation, and found that the physical environment directly affects motivation. Specifically, workers were more productive and motivated in a comfortable, safe, supportive physical environment (Herzberg, 1987).

The implications of Herzberg's theory can be transferred from workers and applied to learners: if adult learners are comfortable with the seating arrangement in class, which allows for a balanced amount of interactions and idea-sharing between the teacher and students, then they may be more motivated and might learn more. Perhaps that is why I noticed students becoming highly engaged when I held classes in coffee shops and in classes with desks arranged in a circle or a u-shape, as discussion naturally occurs when people are facing each other. These seating arrangements are much more inviting to participation than lecture-

style rows.

This research clearly explains the co-dependence of the two ingredients that allow for success in classrooms with adult learners: good andragogy and the physical environment. Borrowing again from ergonomics, Dr. Tom Davenport (2005) created a theory on 'knowledge workers'; this term refers to independent thinkers and explains how they think, complete jobs, and the motivation that drives them. His recommendation for employers is to align the physical work environment with the group and its unique knowledge needs. Applying Davenport's theory of 'knowledge workers' to students, one interpretation is that teachers must find out about students' learning styles (auditory, kinesthetic, visual, etc.) and which ones students rely on most. With their students' learning needs in mind, facilitators must get to know students' comfort levels with various seating arrangements and to arrange the furniture in the classroom accordingly. Perhaps a simple questionnaire could be administered to students to help gather this information. Therefore, relying more on circular and u-shaped arrangements of furniture rather than rows encourages adults to participate in their own learning, and is conducive for learning activities that are student-directed.

After drawing on research from Ergonomics to understand the strong link between physical environment and productivity, or learning, it is important to see how this information compares with research focused specifically on education. Interestingly, the findings are quite similar. Renner, an experienced adult education trainer often cited by key researchers of adult education, including MacKeracher, wrote a practical guide book for adult educators (1993). It covers many topics, but the set-up of a room is discussed early on. He includes pictures of different arrangements beside descriptions of activities each is best suited with. For example, he describes the u-shaped arrangement as having many advantages: "participants can see each other when listening and speaking and the facilitator can move into the square to intervene or withdraw to the outside to let the situation flow unhampered" (Renner, 2004, p. 11).

The idea of obtaining the best physical classroom environment can be related to the children's fairy-tale of Goldilocks (MacKeracher, 2004), the girl whose pursuit was to find the chair, porridge and bed that needed to be "just right" (p. 187). Teachers who try to rearrange the classroom often come upon common challenges. For example, classroom designs that are not conducive to group discussion, tables that are too heavy to move, chairs attached to the floor, and custodians upset when marks are made on floors (MacKeracher, 2004).

The marriage between an ideal physical environment and

learning activities is necessary in order to benefit the adult student: "[i]n order to design appropriate adult learning experiences, it is important that the environment, learners' experiences, and the relevance of the instruction be taken into consideration" (Finn, 2011, p. 37). This is a challenge for any facilitator, but the recommendation is clear and to the point. A connection can be made to Davenport's (2005) point that the work environment must fit the workers' knowledge needs.

Limitations

One important consideration that should be examined further is the impact that discussion-friendly classrooms have on students' grades; my main focus has been on the classroom, the facilitator and engagement during lessons. Also, I relied heavily on personal anecdotes and experiences which need to be further substantiated by qualitative research. For example, it would be interesting to survey students about their preferences in classroom set-ups that I have emphasized with u-shaped desk arrangements, and compare the results with those in lecture-style seating. Evidently, the u-shaped classroom arrangement emphasizes the role of facilitator; a supportive role, ready to assist when needed or let the students guide their own discussions and be present in the background. This is not possible in lecture-style classrooms. It is important to note that I am not suggesting that lecture-style rows have no place. For example, when students are writing tests, or independent work needs to be completed, rows can be the most appropriate configuration. Also, in larger classes it may not be possible to rearrange desks in a u-shaped design, especially in fixed theatre-style seating, typical of many university and college classrooms.

Conclusions

In conclusion, the physical environment of a classroom can hinder or promote learning for adult students. Most notably, seating may be the biggest factor in determining student satisfaction (Hill & Epps, 2010) and in smaller classrooms it may be the easiest factor for the teacher to manipulate. By reflecting on my experience as an adult educator, considering the classroom arrangements that produced higher levels of student engagement and satisfaction, along with those that appeared to alienate students, I came to favour u-shaped seating. This seating arrangement allows for authentic discussions (Hadjiannou, 2007), discussions that arise naturally as a result of learning; those that focus on

real-life events are cornerstones of adult learning (Knowles, 1980). Finally, after my exploration of research on adult productivity and learning, I stand firm in my initial opinion: seating arrangement in a classroom directly affects the flow of interactions between facilitator and students, and thus the quality of learning, and requires further research.

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PART 2

THE ADULT SECOND LANGUAGE LEARNER

BHAVNA KAUSHAL

CHAPTER 6

LOOKING AT ADULT ESL LEARNERS IN POST-SECONDARY EDUCATION

INTRODUCTION

The author of this chapter looks to examine the experiences of adult ESL learners who voluntarily undertake post-secondary education in Canada. These adult ESL learners experience greater challenges than their native English speaking peers and yet continue to pursue their post-secondary education. A specific set of research questions will be examined in relation to this topic in the hopes of developing a stronger understanding of the learning experiences and the motivations of adult ESL learners as well as what can be done to support them in their academic pursuits. This is useful for adult learners and adult educators alike. In summary, the main goal of this particular chapter is to attempt to establish an understanding of what post-secondary adult ESL learners experience, and discuss ways to help enhance their academic experiences and academic potential.

It was time for the students to hit the books.
It was time for the students to study hard.

CHAPTER OVERVIEW

This chapter will look at the theory behind how learners are able to acquire a new language and the ability of the human brain to learn as well as some of the difficulties faced by international post-secondary students. Additionally, a brief discussion of the motivation behind why students from other countries may want to study in Canada will be presented. The personal experiences of a select group of participants will be looked at in regards to particular research questions. Finally, some helpful strategies for adult ESL learners and adult educators in post-secondary institutions looked at in detail. Preceding each section will be an idiom in italics and the intended meaning of the idiom below. These idioms have been included to bring to the attention of the reader a difficulty of learning the English language, which involves understanding the hidden meanings of popular phrases. An idiom is defined by the Oxford Dictionary as, "a group of words established by usage as having a meaning not deductible from those of the individual words; a form of expression natural to a language, person or group of people" (Oxford Dictionary, 2013).

The main goal of this work is to understand what post-secondary adult ESL learners experience and discuss ways to help enhance their academic experiences. I hope to provide an interesting piece for both native and non-native English learners.

Do not bite off more than you can chew
Do not take on a task which is too large for you to complete.

Introduction and Premise for Research

There are many fascinating topics within the field of adult education. One such topic that I have chosen to examine is the experiences of adult ESL learners while studying in post- secondary institutions in Canada. The premise for wanting to explore this topic is a deep personal interest in the subject, as I am from an immigrant background and I am the first person in my family to be born in Canada and complete my education in Canada. Other members of my family have completed education in Canada after immigrating, and thus English is neither their first language nor the language in which they feel most comfortable communicating.

Despite this, these adults have voluntarily decided to complete post-secondary education in Canadian academic institutions. I find this both interesting and commendable, since I know first-hand that it can be difficult to complete a post-secondary education even when English is your first language, and can only imagine the difficulties one may face when being an adult ESL learner and undergoing post-secondary studies.

This chapter will illustrate some of the difficulties that adult ESL learners encounter in post- secondary education in comparison to students whose first language is English. The questions I wanted to answer were as follows: What difficulties do ESL adult learners encounter in comparison to native English speakers when partaking in post-secondary education? What motivates or encourages these adult ESL learners to voluntarily strive for higher education in their non-native language? Finally, what can be done by adult educators to assist adult ESL learners in achieving their goal of completing post-secondary education in Canada? While it is beyond the scope this chapter to provide concrete answers to these questions, they will be examined through the personal accounts of immigrant post-secondary adult learners who have agreed to be named and share their experiences with me.

She needed to take a load off her mind.
She needed to discuss the difficulties she was facing.

New Language Acquisition and Learning in Adult ESL Learners

A lot of adult immigrants to Canada also speak other languages, meaning that these learners are multilingual. Although there are various definitions of multilingualism, one definition that is easily understood is that multilingual means that something is or someone is, "in or using several languages" (Oxford Dictionary, 2013). The author of this chapter is multi-lingual, and speaks two Indian languages of Hindi and Punjabi, in addition to English. This at times has been difficult, but is definitely very rewarding. It is believed today that when acquiring multiple languages that, "...each language in the multilingual integrated system is a part of the complete system and not equivalent in representation or processing of a monolingual speaker." (Kemp, 2009, p. 19). This view maintains that multilingual speakers do not need to achieve the exact same fluency of the language as the native speakers of the language possess in order to be considered proficient in that specific language (Kemp, 2009). There are many components of multilingualism. Generally speaking however, a rather holistic view of multilingualism is promoted (Kemp, 2009).

Functional capability in regards to language is also an important component in multilingualism. Functional capability involves "...how extensively participants are able to communicate across a number of domains, which particular domains they can communicate in and whether they are able to code switch appropriately for the community that they interact with." (Kemp, 2009, p.20). Code switching is a term used to describe the phenomenon of bilingual and multilingual individuals that communicate using all the languages known to them, and do so by switching the language used often (Bauer & Grot, 2012). For example, a person who is bilingual, fluent in both English and French may be conversing in English and then say some words in French and then return to speaking English again. Many post-secondary immigrant students also engage in code switching behaviour, as will be seen later in this chapter. The ability to code switch is also important to me personally because I am multilingual and this fact is a very significant part of my life and of my identity. Research by Sotos looks at being multilingual and the fear that some immigrants have that they might lose their other languages when learning English (Sotos, 2011). Sotos argues that "we can add ESL as a new repertoire rather than thinking we have to subtract the home language. The idea is to socialize healthy, active bilingual/bicultural people" (Sotos, 2011, p. 90). I believe as educators, we must be respectful of the cultural and linguistic diversity found in our adult student populations and understand how this may impact learning.

He felt as though his brain had turned to mush.
He felt tired and thus experienced difficulty thinking clearly.

Neuroplasticity and Learning in Adult ESL Learners

Learning is a lifelong process, and many people consider themselves to be lifelong learners. There are many myths in the general population about how it is impossible or more difficult to learn new skills as one becomes older. As mentioned in the work of Doidge (2007), it was historically thought by those in science and medicine, "...that brain anatomy was fixed" (Doidge, 2007, p. xvii). Many researchers have worked hard to debunk this myth. The brain is a very complex organ which is responsible for learning amongst other tasks. Language acquisition is a complex task and as noted by MacKeracher (2004) uses both the left and the right hemispheres of the brain (MacKeracher, 2004). MacKeracher further discusses the role of the brain in language acquisition, stating that the following processes occur, "semantics or

words (a left hemisphere specialization) assigned to meaningful patterns (a right hemisphere specialization." (MacKeracher, 2004, p. 98). Furthermore, the left hemisphere is responsible for syntax and grammar (MacKeracher, 2004), while the right hemisphere is responsible for "...the use of metaphors or imagery" (MacKeracher, 2004, p. 98). During language acquisition, both cerebral hemispheres are needed to have "sensitivity to sound" (MacKeracher, 2004, p. 98). It is truly amazing to think about all that the brain does during language acquisition, while simultaneously doing several other tasks. We actually do much more than we are consciously aware of due to the ability of our brains to multitask with maximum efficiency.

Many marvel at the capacity of the human brain to learn. The ability for us to learn has been discussed by Cozolino and Sprokay (2006) and, "...is dependent on modification of the brain's chemistry and architecture, in a process called 'neural plasticity'" (Cozolino & Sprokay, 2006, p. 11). Other researchers refer to this term as "neuroplasticity" (Doidge, 2007, p. xix). Some researchers state that the brain has the ability, "...to adapt and readapt to an ever-changing world" (Cozolino & Sprokay, 2006, p. 11). This suggests that the brain is not hard-wired or fixed in a particular anatomy as was earlier thought (Doidge, 2007).

Although neuroplasticity is an amazing property of the brain leading to many benefits for mankind, there is also a slight downside to this property (Doidge, 2007). Specifically, Doidge mentions that the, "Neuroplasticity has the power to produce more flexible but also more rigid behaviours..." (Doidge, 2007, p. xx). Doidge refers to this phenomena as the "plastic paradox" (Doidge, 2007, p. xx). This may be why for example, once we pronounce a word wrong repeatedly, it becomes harder to pronounce that word correctly once we are corrected. However, it is not impossible, and that is why the human ability to learn anything, in this particular case language, is remarkable.

It will be as easy as ABC.
It will be very easy to complete the specific task.

Difficulties Faced by Adult ESL Learners

Post-secondary studies can bring new challenges to students. This is true of both native and non-native speakers of the English language. Work by Zhou (2009) mentions that at times, certain tasks may be harder for international students because of the language barriers they face (Zhou, 2009). Some of these difficulties include challenges with formal

academic writing and challenges with reading academic texts (Zhou, 2009). It has been noticed by professors that non-native speakers of English write differently from their native English speaking peers, and thus more lexical errors are found in the work of non-native English speakers (Zhou, 2009). Furthermore, it is interesting to note these non-native English speakers are aware of the deficits in their writing and have, "...voiced concerns in three areas...grammar, vocabulary and mechanics, such as spelling and punctuation" (Zhou, 2009, p. 37). Work by Brown (2013) suggests that when learning in a language that is not one's native language, there is an issue of discrepancy that may arise between observed performance level and actual course grade received (Brown, 2013). Some insight into the experiences of these non-native English adult learners will be gained when looking at participant interviews later on in this chapter.

That student was certainly an eager beaver.
That student worked very hard, with a lot of dedication and enthusiasm.

Motivations of Voluntary Adult ESL Learners

It may be challenging for adults to take on new tasks due to fear. It has been stated that "Fear is easy to learn and difficult to forget..." (Cozolino & Sprokay, 2006, p. 14). Fear can increase stress in adult learners and make it more difficult to learn (Cozolino & Sprokay, 2006). Furthermore, "Stress in the learning environment, negative memories from past learning experiences or problems in a student's life can also truncate learning ability" (Cozolino & Sprokay, 2006, p. 14). Despite this, some adult ESL learners in post-secondary institutions still continue their academic pursuits.

There are various sources of motivation in the lives of adult learners. There are four basic drives that serve as motives for humans, which are the drives to: acquire, bond, defend and learn (Lawrence & Nohria, 2001). The drive to learn is important in understanding why adult ESL learners voluntarily pursue post-secondary studies. The drive to learn motivates people because it helps them to understand natural phenomena, and the environment around them (Lawrence & Nohria, 2001). This drive is an example of intrinsic motivation. Another form of intrinsic motivation has been described by Maslow as "growth or being needs" (MacKeracher, 2004, p. 132). Growth needs are positive and may, "...focus on belongingness, self-esteem, and self-actualizing tendencies" (MacKeracher, 2004, p. 132). It seems that the need to self-actualize may

be related to learning, as acquiring knowledge and experiencing academic success can help adult ESL learners in their pursuit of self-actualization.

Some researchers also discuss extrinsic motivation as a source of motivation for students. Certain situations may affect motivation (Renchler, 1992). Some of these situations include: normative expectations individualized expectations and sociocultural definition (Renchler, 1992). Simply, normative expectations refer to a set of norms that each member of the group is expected to follow. Individualized expectations are the beliefs that a significant people (for example, teachers) have about the learner's ability (Renchler, 1992). Finally, sociocultural definition is the extent to which an individual's goal is supported by the various groups to which they belong (Renchler, 1992). These factors fit well with an assumption about adult learners suggested by Knowles. The work of Knowles states that as adult learners mature, "...their readiness to learn becomes oriented increasingly due to the developmental tasks of their social roles" (Knowles, 1980, p. 45). Each of these factors, as well as an abundance of other factors beyond the scope of this chapter may be reasons why adult ESL learners are motivated to pursue their academic goals despite the hardships that they may face.

You deserve an A for effort.
You deserve praise for your effort, regardless of whether or not you were successful.

Personal Accounts and Experiences of Post-secondary Adult ESL Learners

In the course of writing this chapter I interviewed a number of ESL learners and asked them about their experiences in Canadian post-secondary institutions. The criteria for the participants were as follows: they had to have been born in a country other than Canada, they had to speak a mother-tongue which was not English, and they had to have either completed a diploma or degree program or be enrolled in such a program at the time of the interview. There were four participants interviewed for this chapter. Each interviewee was asked the following questions, which were essentially the research questions for this chapter: what difficulties do you believe you encounter in comparison to native English speakers when partaking in post-secondary education? What motivates or encourages you to voluntarily strive for higher education in your non-native language? What do you think can be done by adult educators to assist you in achieving your goal of completing post-secondary education

in Canada? There was also an opportunity for each interviewee to give any additional information they wanted to disclose regarding their experiences. All of the interviewees have been assigned pseudonyms and have been referenced as such, in order to keep their experiences anonymous. The interviewer (the author of this chapter) specifically chose to focus on participants of an Indian origin for this particular task, due to the fact that the author also speaks Indian languages and thus could interview in a language other than English and/or translate where necessary. Permission was obtained from each participant to be interviewed, as well as each participant had an opportunity to review their contribution to this chapter, and were ensured that confidentiality would be maintained at all times throughout this work.

PARTICIPANT INTERVIEWS

Question 1: What difficulties do you believe you encounter/encountered in comparison to native English speakers when partaking in post-secondary education?

Raj: I think I did not understand material as well in class. I had to go home and teach everything to myself again, at a much slower pace. I also did not write well. Before I began, I told myself that I can do it. I can create a paper that is well-written and informative. When I actually sat down to write I felt blank and sometimes confused. My writing was so basic. It was lacking detail and was full of grammatical mistakes.

Vishal: Trying to write in English in formal academic language is like trying to write in my native language with the wrong hand. I know how to write, but it becomes much more difficult. It is not as nice, it is not fancy writing. It is frustrating and it is tiring.

Mina: University is very difficult and a lot more work for me than some of my friends who were native English speakers. I only understand some of what my professors say because they speak quickly, and I feel confused. When I write, I think about what I want to say in my mother tongue first and try translating it. That helps me organize my thoughts better.

Sia: I often had trouble with writing. I would edit and re-edit my work to try and get it "right" but it took a very long time. Also it was hard to read academic texts because of the formal language. I would skip over complicated words and try to make simplified summaries for myself.

Question 2: What motivates/motivated or encourages/encouraged you to voluntarily strive for higher education in your non-native language?

Raj**:** Back home, everyone thought that a successful man is a man who has a degree from outside our country. People around me thought I could do it. So I decided to try to complete studies in Canada. It was so hard...but I did it because I did not want to disappoint anyone, especially my parents.

Vishal**:** I came to study here because I thought it will be helpful in securing a good future. My girlfriend and I study together and have hopes of getting good jobs and having a successful future.

Mina**:** My friends help to motivate me, they help me stay strong. My family moved to Canada together, and initially I really wanted to go back home. There are many difficulties here that were not there at home. I think I will try to stay here and succeed because I do not want to quit and regret my decision later. My friends encourage me to work hard.

Sia**:** The main motivation for me was the expectations of my family. There were other family members that are moved to Canada to study and I was expected to do what they did. They had struggled too but were able to succeed, so I figured I could do it too.

Question 3: What do you think can be done by adult educators to assist you or others in achieving a goal of completing post-secondary education in Canada?

Raj**:** There should have been more help available. Maybe some free tutors at the university who volunteer to help students. Also, professors should have taken the student's background into consideration and offered extra help if possible.

Vishal**:** I feel like they should realize that English is not my first language and so maybe they can mark my writing taking that into consideration. Or give a chance for re-submission, not for content but for proper writing.

Mina**:** I wish that all professors would provide an example or a guide of how they would like you to do a written assignment. That would really help me because a lot of the times, I just stare at my computer screen and do not know how to start my assignment.

Sia**:** I think more time on examinations might have been helpful because it sometimes took a long time to read the questions. Also some advice on academic writing like a tutorial or something would have been useful.

Question 4: Is there additional information which you would like to share regarding your post-secondary education experience?

Raj: I would say that it is very hard not to quit. There were so many times I wanted to quit. Just try to believe it yourself when it gets complicated. Remember the reasons why you started doing what you are doing.

Vishal: I think that getting someone to edit your work is very helpful, and can help you perform better. It is hard to write well but if possible try to look at writing guides at the library or on the internet.

Mina: I think that working on vocabulary is important so that you can write in a more academic manner and learn more ways to describe your ideas.

Sia: Perseverance is key, you have to keep trying. You might not understand at first, but keep trying. Simplify your tasks as much as possible and try again.

You can take the horse to the pond, but you cannot make him drink.
You can advise someone or help someone to do something, but you cannot force them to do it

Strategies Adult Educators can use to Enhance the Academic Experiences of Adult ESL Learners

Although it can be tough for adult educators to help their adult ESL learners, this task is not impossible. An easy strategy for educators may be to increase the amount of time spent on vocabulary and language development (New Teacher Center, 2005). Through this, educators will, "...introduce new concepts by discussing vocabulary words key to that concept" (New Teacher Center, 2005, p. 2). This will help learners to become familiar with new words in relation to the appropriate context (New Teacher Center, 2005; Zhou, 2005). In participant interviews, it was mentioned that expanding vocabulary can be hard for non-native English speakers, so this strategy definitely addresses that issue. Another

strategy that educators can use is that of explicit instruction. This strategy includes, "...the direct teaching of concepts, academic language and reading comprehension strategies needed to complete the classroom tasks" (New Teacher Center, 2005, p. 2). An example of this would be to provide an essay format guide as suggested by Mina. The New Teacher Center (2005) also mentions the use of visuals in the classroom, such as charts, diagrams and posters. The use of visuals helps learners, "...easily recognize essential information and its relationship to supporting ideas. Visuals make both the language and the content more accessible to students" (New Teacher Center, 2005, p. 2). Visual tools such as charts may be able to help learners organize the key concepts and filter out what is important from academic texts.

There are also strategies and tools which can be used outside of the classroom. For example, based on participant interviews it seems that learners usually have a good idea of where they need extra help, so perhaps educators might be able to help learners to identify the origin of their academic difficulties (Zhou, 2005). Furthermore, once problems are identified and the causes of the problems are determined, professors can help learners set realistic goals for improvement and upward progress (Zhou, 2005). Lastly, many post-secondary institutions now offer on-campus support centres where students can go for academic help, which are quite useful.

If you want to understand someone, try to walk a mile in their shoes.
If you want to understand someone, try to put yourself in their place to see what their life is like.

Future Directions and Conclusion

It can be clearly seen throughout this chapter that adult ESL learners face more challenges than their native English speaking peers. The author interviewed participants from an Indian background only, which may be a limitation of this research. Thus the author recommends that more research be conducted on adult ESL learners from various cultural backgrounds to determine if there are cultural differences in the difficulties faced by adult learners. The author advises using sensitivity when dealing with adult ESL learners and to help them to help themselves improve.

In conclusion, the goal of this book chapter was to further examine the experiences of adult ESL learners in post-secondary institutions. It is critically important to bring awareness to the reality that adult ESL

learners face greater difficulty than their native English speaking peers in post-secondary institutions. Some of these main difficulties include understanding and expanding academic vocabulary and completing academic writing tasks. Motivation strategies of these adult learners were also looked at. Finally, ways that adult educators can help adult ESL learners achieve their goal of completing post-secondary education in Canada were highlighted. The research questions outlined at the beginning of the chapter were answered through existing research and by short conversations with participants. The author commends all those learners that embark on the long road of higher education and hopes the future generation continues to strive for higher education. Knowledge is power, and thus knowledge empowers us to build a brighter future.

AUTHOR'S NOTE

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Also, the idioms presented in this chapter were for entertainment purposes only, and were not meant to offend any person. While none of the idioms were copied verbatim from any source, the author would like to cite the Cambridge International Dicitionary of Idioms (2013) as the main source of these paraphrased idioms. The complete information for the Cambridge International Dictionary of Idioms can be located in the References section of this chapter.

Thank you for your time in reading this chapter and happy lifelong learning! ☺

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DAVID S. RAYO

CHAPTER 7

EXPERIENTIAL GRAMMAR THROUGH PICTURE CUES AND STORY TELLING

INTRODUCTION

Teaching English grammar to adult English-as-a-Second Language (ESL) learners is a rewarding, yet challenging activity. It is rewarding because the learners gain command of the usage of grammatical forms for their everyday communication, they gain confidence when speaking in their second language, as well as a sense of accomplishment for mastering what could be considered the most dreaded subject area in a language course curriculum. By the same token it is challenging due to first language interference, motivational issues and oftentimes due to lack of contextualized material designed to give the learners a connection between book-based tasks and to real-world experiences.

A simple search of online bookstores will produce a large number of books and publishers that sell grammar books containing a myriad fill-in-the-blank exercises, verb lists, individual grammar points and multiple-choice questions. Language schools tend to offer grammar stand-alone courses to students while the teachers are given resources that deal with formal grammar instruction based on the structure of the language instead of grammar for the social context, or functional grammar (Larsen-Freeman, 2001). It is paramount for English-as-a-second-language (ESL) teachers to effectively engage adult students in the use of the grammatical structures found in textbooks. To accomplish this, teachers must produce tasks and activities, verbal or written, which go beyond the limits placed by formal grammar books.

More often than not teachers are given a curriculum along with a textbook, deadlines and outlines of the content they must teach and asses the students with. This places limitations on the kinds of in-class activities to engage in, especially when it comes to assessing students' progress. The type of testing common in stand-alone grammar courses tends to be similar to the exercises commonly found in books. However, these types of exercises are mostly conducive to acquiring knowledge about the language instead of addressing the students' communicative needs.

Background

As an English as a Foreign Language (EFL) learner I experienced hours upon hours of grammar classes in which the teacher explained a grammatical structure and handed out exercise sheets for us to practice it. More often than not, we had to do the tasks on our own and the teacher would take them up with the whole class. At this point the teacher would move on to another aspect of the structure, another point or assign homework. The homework consisted of similar types of exercises in a workbook or other handouts. There were endless lists of regular and irregular verbs, nouns, adjectives and adverbs, as well as sentence structure exercises. As clever students, we used bilingual dictionaries to look for translations of the words and we copied from each other whenever the teacher was not looking. A lot of the explanations on the grammar points were orally transmitted in the target language and reinforced in our first language. The few actual half-forgotten memories of our English classes are of all the joking around we engaged in during class and of a few picture-cue stories we were given on Fridays to lighten the mood, given to us as treats whenever we behaved well during the week.

Years later, as a trained EFL instructor, I worked with adult learners whom I coached for the Test for Spoken English (TSE) in South Korea. The first test question was a four or six scene cartoon story which the students had to orally explain in a recording. My initial assumption was that the students would do well in the grammatical component of the stories and would struggle with the vocabulary and idiomatic expressions required to narrate the action. However, I found that the students had trouble applying accurate grammatical forms once they began to give their interpretation of the action in the picture cues. Instead of just focusing on vocabulary, idioms and slang, a large part of our classes was spent focusing on grammatical points such as subject-verb agreement,

prepositions, adverbs, modals and noun and adjective clauses among others. Since this was not a grammar class, we did not have the benefit of a formal grammar book, so we resorted to using handouts and online exercises. As an experiment, I tested their grammatical knowledge with standard fill-in-the-blank quizzes and found that they did rather well in such tasks. I eventually stumbled on a recurring theme in my subsequent classes: a disconnect between metalinguistic knowledge and actual language usage.

Once I came back to the Canadian context I began to notice the same pattern emerge with international students at various English skill levels. Even though their test scores showed a good command of isolated grammatical structures, they were unable to consistently use their knowledge of grammar in the accurate recounting of their personal experiences. I began to use story boards similar to the ones I worked with in South Korea to encourage the students to produce more accurate sentences in their writing and speaking through story-telling exercises. The literature has some samples of how educators have effectively used story-telling as a teaching tool, but only from the teachers' perspectives (Philpott, 1991, Fitzgibbon & Wilhelm, 1998 and Yang, 2011). Although the students enjoyed narrating and writing their stories with the aid of picture cues and story boards, they had difficulty transferring the knowledge gained from their grammar books to meaning-based tasks, a phenomenon first identified in 1929 by Alfred North Whitehead as the inert knowledge problem (Larsen-Freeman 2013).

EXPERIENTIAL LEARNING

Creating experiences in the classroom is an important component of learning (Wells, 2009). Personally, I do not remember much of the content of my high school or university classes, but I do remember how I felt in class, whether it was fun or boring, exciting or dull. In my experience, when students talk about a grammar class, exciting and fun are not common adjectives to describe it. Nevertheless, teachers have, in their own bag of tricks, many activities and tasks that make learning grammar enjoyable. I found mine in picture cues and story boards because students quickly make emotional connections to the characters in front of them. In empathizing with their plight, the students can begin to use language in a natural manner and the grammatical structures begin to emerge.

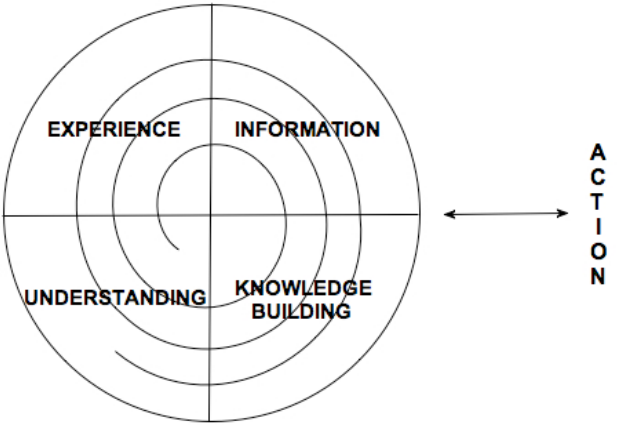

Figure 1. Spiral of Knowing. This figure illustrates the structure of a lesson using Gordon Wells' Conversational Model.

Gordon Wells' model (2008) for experiential learning, called "Spiral of Knowing," can be a useful starting point in the creation of in-class experiences for the adaptation of picture cues and story boards for grammar instruction. The experience begins for the students as they encounter a picture or a story board. This initial contact jumpstarts the students' imagination as they try to make sense of what they see. The understanding of the story happens as the students use and share in conversation their prior knowledge of linguistic forms, i.e. grammar, and vocabulary to begin to explain or narrate the story line. In the knowledge building stage, the students fill in the gaps in their learning. This could take the form of peer to peer learning, teacher assistance or readings from a textbook. In this phase the students gain new understanding to effectively describe or narrate the action in the picture cue or story board. Finally, during the information stage, the students internalize the newly gained knowledge in order to use it again for a new experience. This model provides a framework to work from in grammar classes that are regulated by the use of textbooks. The concepts of creating experiences to encourage understanding, constructing new knowledge and internalizing this information for a future new experience can be easily adapted to fit various models of grammar instruction.

Considerations for Teaching Grammar

I believe that part of the reason why some of the students I have

taught have not made the connection between the rules in their textbooks and the action in the picture cues has to do with my teaching method. I found that I was teaching grammatical structures in isolation using formal grammar techniques found in the textbook, e.g., fill-in-the-blanks, error correction exercises and multiple choice questions. This type of instruction is what Ellis (2006) refers to as focus on forms using explicit instruction methods. By explaining how the rules work and giving examples and practice exercises on isolated structures I was teaching grammar as I had been taught it and as I thought was expected of me by the students. My assumptions were similar to what other teachers have assumed, as reported in the findings of Spada & Lightbown (2008) in regards to teachers' attitudes and assumptions about grammar instruction; mainly that students want to be taught grammar in isolation and they expect formal grammar-type exercises, as well as feedback in the form of correction.

During my classes, once I had finished with explicit teaching and practice of the grammatical point(s) I was asking the students to apply the isolated grammar points to the stories in the picture cues. This would encourage them to tie in their newfound knowledge to communicative tasks. As Ellis (2006) points out, I was switching from explicit to implicit instruction, from a focus on forms approach to a focus on form. According to Ellis, focus on form deals with applying grammatical structures to communicative tasks with a focus on meaning and usage, not on understanding the rules. Ellis (2006) also makes a distinction between planned and incidental instruction. When planned, the teacher prepares the material to be learned before-hand, but in incidental episodes, the students are the ones who provide the teacher with the clues on what to focus on.

Furthermore, I continued to assume that the students could automatically seamlessly transfer grammar concepts from one context to another (Larsen-Freeman 2013). This, as it turns out, is a common assumption and a source of frustration among ESL/EFL teachers and students alike. Students tend to speed through the exercises only to forget the material quickly or to forget using it when called upon by linguistic appropriateness or necessity. The task of the grammar teacher is to create an environment and/or tasks conducive to internalization of the grammar to the point of instant recall when the opportunity presents itself to use it.

Creating Experiential Grammar Classes

Armed with various ideas on grammar instruction found in the

literature I began to design grammar classes structured around Wells' (2009) concept of generating conversation through the use of artefacts, i.e., picture-cues for story-telling. Instead of beginning my classes with explicit focus-on-forms instructions I used the picture cues as conversation starters. However, since the curriculum required me to cover certain grammar points I used planned focus on form instruction instead of incidental focus on form. The difference between these two concepts, as explained by Ellis (2006) is that when the teacher uses planned focus on form, the communicative task contains grammatical structures chosen by the teacher which the students have to learn. On the other hand, when the focus on form instruction is incidental, the teacher uses the students' mistakes or errors to guide the teaching of grammar structures.

A typical lesson using this approach would begin by handing out a picture cue or a story board to groups of students to create an experience for them to bring to life the grammar from the textbook. The picture cue in can be used to generate descriptions and questions about how to best express the action, in this sense it can fit into implicit and incidental instruction. As well as looking at the picture cues or story boards, the students can be directed to the textbook for the grammatical structure that they have to learn how to use, which can be deemed as an episode of explicit/planned instruction.

Doughty and Williams' criteria may come in handy; mainly that the artefact, in this case the picture cue, targets the grammatical form that needs to be learned in a natural way. Also, the learner's attention should be briefly directed at the forms in use (Norris & Ortega, 2000). This brief exposure allows the student to appropriate the experience without much outside influence or help. It is important that students need to have some time to think about how to express meaningful language and it often times happens through conversation with their peers and the teacher (Wells, 2009).

By looking at the picture cue, the students can begin to discuss it as the teacher pays close attention to the use of nouns as subjects and objects in the students' descriptions of the action. As the students discuss their interpretation of the story, the teacher can write quick notes of the sentences that the students are using and that are similar to the target grammar points. An important observation is that the students are given the chance to experiment with their prior knowledge of language and story-telling abilities. This creates confidence and encourages peer-learning without the stress of coming up with the "right" answer. Although there is a target grammar point, it should not be expected to limit the conversation, but instead, the grammar point should occur

naturally. If it does not occur in conversation, the teacher can elicit it or direct the students to briefly look at the grammar book to refresh their memories and to encourage them to think about how to enrich their re-telling of the story with appropriate use of the desired structure.

As the students volunteer thoughts to their peers, the teacher can begin to notice the emerging use of the nouns and verbs in the students' sentences. For example, if the picture depicts people in an office environment, an appropriate sentence to describe the action could be:

The people are working.

This is a sentence with an article, a subject (noun) and a verb. The students can begin to use this type of construct to describe or narrate the action and they can begin to implement the inclusion of an extra noun, a preposition and finally an object of a preposition. Take a look at the following examples in which the subject and the object gain names (familiarity):

Sheila is talking to Hank.

(In this sentence "Sheila" is used as the subject and Hank as the object, both nouns.)

She is standing behind Hank.

(In this sentence "Sheila" is still being used as a subject, but "Hank" becomes the object of the preposition of place.)

These examples of explicit attention to the forms should not dominate the conversation in the classroom because there are many aspects of the language that should be encouraged to occur naturally. Some students may be drawn to vocabulary acquisition if they see objects whose names they are not familiar with. Other students might prefer to talk about the action using past tense verbs learned during a previous class. The point of using the picture cues is to encourage total language usage while adding new structures to their growing knowledge of the language. This could be considered as the knowledge building stage in Wells' model.

There are various advantages and disadvantages while using picture cues for grammar class practice and teachers must be aware of them to make

the necessary adaptations for the lessons to remain effective. The following table outlines some .

Advantages	Disadvantages
• Picture cues/stories tend to quickly engage students. • They are a fast way to create in-classroom experiences for students to work with. • They can be used for explicit or implicit grammar instruction. • They can cover various grammatical points. • Easier transfer of grammar knowledge to real-world contexts • Aid in the transfer of fictional stories to re-telling of personalized life experiences. • They can be used at varying degrees of difficulty/detail. • Can be useful for written or spoken tasks • Implicit practice in story-telling applicable to original stories • Very close to natural communicative activities for use in class • Gives students a voice to practice expressing their thoughts	• Students may tire of using them • Teachers need to have large number of picture cues available • Constant need of variety/innovation in stories • Students could get confused or distracted from explicit tasks • Teachers could end up over correcting • Students might worry too much about explicit tasks and may not engage in natural communication

Conclusion

Creating experiences for students in the grammar classroom can be a powerful tool to link the explicit instruction found in grammar books to the communicative ends that grammar ultimately has. Wells' model provides a versatile framework with which to work in various context-setting tasks. It is especially valuable when dealing with rigid curricula due to its adaptability.

Speaking and writing in grammatically correct fashion should be a desirable outcome for students, as well as teachers, in stand-alone grammar classes. The textbooks provide an appropriate guide for educators and students alike to focus on the language forms necessary to convey clear and understandable meaning to the listeners. The use of picture cues and story boards in grammar classes dictated by formal

grammar curricula is a viable option with which to employ experiential instruction and techniques of explicit and implicit instruction. These types of visual aids can act as vicarious episodes for students to practice meaningful tasks using grammatical constructs from their textbooks in communicative settings. The use of story boards and picture cues is an excellent way to help students bridge the gap between forms (rules) and form (meaning) creating a complete classroom experience where grammar exercises meet real world application.

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PART 3

ADULT LEARNING IN CONTEXT

HOLLY POWELL

CHAPTER 8

SELF-DIRECTED PROFESSIONAL DEVELOPMENT FOR TEACHERS

Over the past three years I have been involved in creating, presenting and facilitating workshops for teachers in Ontario. The workshops have ranged from a half-day to three days in length and have been on a variety of topics, from classroom management and student-led conferences, to implementing technology in classroom practices to meet the needs of students. In all cases the teachers selected the workshops themselves. The half-day and full-day workshops were funded in part by a negotiated benefit (professional learning enhancement) from the Thames Valley teacher local of the Elementary Teachers Federation of Ontario (ETFO). The half-day and single day workshops were during the school day and teachers were given funding to have a supply teacher in their class. The three-day courses were over the summer, funded by ETFO provincial; however, participants were responsible for a fifty-dollar fee.

For all workshops the participants filled in an evaluation form. There have been 3 reoccurring themes in the comments:

1. They appreciated being treated like professionals
2. They appreciated that a fellow teacher was facilitating and
3. They would change their practice

These three themes have also been reoccurring in the theories of adult education (MacKeracher, 2004). Self-directed professional development opportunities are meaningful and authentic learning experiences for teachers that have the potential to effectively address the needs of teachers supporting them on the journey from great to excellent.

HOLLY POWELL

A HISTORICAL OVERVIEW OF TEACHER PROFESSIONAL DEVELOPMENT

Mackreacher (2004) suggests that adults cannot be coerced to learn. Unfortunately, historically this has been the preferred method of teacher professional development (MOE, 2004; Postholm, 2012). Fortunately, with new research on teacher professional development there has been a move to more self-selected and self-directed professional development opportunities (Casale, 2011). The movement from directed to self-directed PD may have developed from the understanding that a teacher's professional development needs are unique as their classes change each year and the specific needs of the professional in the classroom reflect the needs of their students (Avalos, 2011). The paradigm shift would appear to be happening; however, slowly due to the copious amount of time government policy takes to change (Pal, 2010).

Recently Fullan (2013) wrote a position paper on the education in Ontario aptly titled "*Great to Excellent: Launching the Next Stage of Ontario's Education Agenda*." In his paper Fullan (2013) presents the public with the outstanding accomplishments of the Ontario public education system through the assessments done by the Organization for Economic Co-operation and Development (OECD, 2011) and the National Centre for Education and the Economy (NCEE) concluding that Ontario is recognized as (and proven to be) the best school system in the English-speaking world (Fullan, 2013). Fullan (2013) reasons that the accomplishments of the Ontario system are due to the "deep professionalism of educators" (Fullan, p.1) and the strong relationship between the government, teachers and principals. Fullan (2013) does caution the reader that in order to move from great to excellent, educators (stimulus from the centre) combined with continued leadership must innovate beyond its current performance. How does a system keep improving and not just become complacent with "greatness"?

I will suggest three modes of teacher professional development that can draw from the strengths of the professionals within the system, while promoting and addressing the principles of andragogy (adult education):

1. Professional Learning Communities
2. Action Research
3. Professional Learning Enhancements

MODELS OF TEACHER PROFESSIONAL DEVELOPMENT THAT SUPPORT ADULT LEARNERS

According to Bakkenes, Vermunt, and Wubbels (2010), innovations in school have failed too often because teachers' learning was not considered. Action research, professional learning communities (PLCs) and professional learning enhancements (PLEs), the three models of PD presented in this section, will link to the themes of self-direction (professionalism), peer facilitation, and transferring knowledge to new practices. Fullan (2013) states that the capacity of educators in Ontario are at a high level due to the strategies over the last nine years and that teachers are intrinsically motivated to keep improving; however, he does make the observation that this motivation is not just because they care but that they make measureable differences in there students learning. Action research, PLCs, and PLEs both support the characteristics of adult learners, as well as, give teachers evidence that their practices make measureable differences.

Action Research

Action research is a specific method of conducting research by practitioners with the ultimate aim of improving practice (Koshy, 2010). The specific features of action research that coincide or support adult learning are: it involves action, evaluation and reflection; it is based on evidence changes in practice are implemented; it is participative and collaborative; it is situation specific; and findings are not absolute or conclusive, rather they lend support to the emerging practices (Koshy, 2010, Moghaddam, 2007). The aforementioned features are directly linked to the assumptions of adult learning: adult learners have a breadth of experience to draw from; they learn best when they are involved in creating the learning objectives for themselves; adults are motivated to learning in order to address real life tasks; and adults are self directed learners (MacKeracher, 2004). MacKeracher (2004) uses Kolb's experiential learning cycle to argue that adult learning is cyclical, that it naturally moves through experience (feeling), to reflecting (watching), to generating/planning (thinking), to acting (doing), back to the experience (MacKeracher, 2004). Kolb's learning cycle (Figure 1) mirrors that of the action research cycle (Figure 2). The two cycles of learning are so similar it would appear that action research might have evolved naturally as an effective means for teachers to engage proactively in their own professional learning to improve their practice (Jarvis & Wideman, 2013).

Due to the fact that action research is very similar to the experiential learning of the teacher in the classroom (reflecting on best practices to address student needs, planning activities or strategies to address the needs, implementing the activities/strategies, and analyzing results) action research can be integrated into the regular class routines (Figg & Jamani, 2013). Action research is a means of self-directed professional development that can be effectively used to both empower the classroom teacher to meet their own professional needs, as well as, meet the needs of the students in their own class (Jarvis & Wideman, 2013; Mcniff, & Whitehead, 2005; Koshy, 2005). Action research supports self-direction (professionalism), encourages peer facilitation, and promotes transferring knowledge to new practices.

Professional Learning Communities (PLCs)

In 1998, Dufour and Eaker argued that the "most promising strategy for sustained, substantive school improvement is developing the ability of school personnel to function as professional learning communities" (p. xi). To understand PLCs the terms must be broken down. First, a professional is someone who, prior to entering their specialized field, has acquired advanced training, as well, stays current within their field as new information is added to the knowledge base of their specialized profession to serve their client: the student (Eaker, DuFour & DuFour, 2002; Louis, 2008).

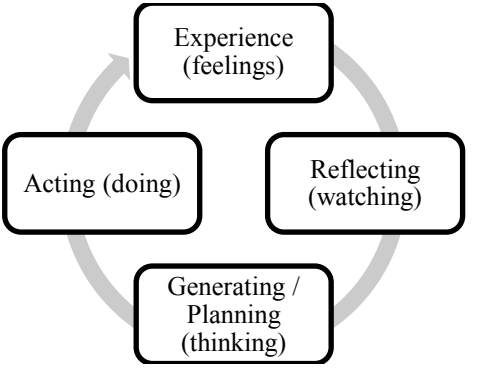

Figure 1.0 Adapted from Kolb's Experiential Learning Cycle (Kolb, 1984)

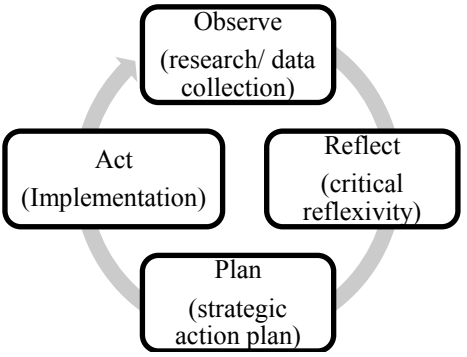

Figure 2.0 Adapted from O'Leary's cycle of research (O'Leary, 2004)

Secondly, learning involves ongoing reflection on practice that impacts outcomes (Dufour et al., 2002; Louis, 2008). Finally community refers to an environment that is caring, supportive, based on mutual respect and an understanding of collaboration to achieve goals that one cannot achieve alone (Dufour et al., 2002; Louis, 2008). PLCs support the adult learner as they create an environment that is supportive (trusting, supporting the teacher sense of self), is reactive to the needs of the learner (self-directed) and encourages teachers to apply their knowledge to the immediate classroom (learning in context) (MacKeracher, 2004). Early in the work on PLCs, Dufour et al., (2002) contend that there are no clear steps to take to create PLCs rather they suggested to focus on stressing professionalism, creating a shared mission, vision, value, and goals combined with job embedded collaboration.

Although the recipe is unclear the characteristics of PLCs have been enlightened through research (Dufour et al., 2002). Teachers are assigned to teams, they work interdependently to achieve their goals, and the teachers on the team give up their autonomy for collective authority to focus on questions of best practice and student learning. The teams collectively focus on desired outcomes, the course of instruction, the test for learning; they collaboratively analyze the data, establish the improvement goals, and support new learning of teachers through shared strategies. The teams work together on an ongoing basis to explore best practices that expand the members' professional expertise because collaboration is embedded in their school culture (Dufour et al., 2002;

Seashore Louis, 2008). The lose structure of the PLCs support the learning cycle outlined by O'Leary (2004) with respect to experiential learning in adults; while allowing for self direction in the implementation. PLCs can support the teacher as professionals, in a culture of collaboration, which fosters growth in the teacher's pedagogy.

Professional Learning Enhancement (PLEs)

The professional learning enhancement (PLE) was a negotiated benefit for elementary teachers in the Thames Valley District school board. In the first year of its inception all elementary teachers qualified for one half-day supply teacher coverage to attend any professional development of their choice (formal, informal, structured or unstructured). The only requirement of the teacher was to submit for approval the link between their chosen activity with their annual learning goal ten days prior to their day. In the second year (2011-2012) each teacher was allocated one full day to attend the PD of his or her choice. The intention was to give the teachers up to one day and one half days in the third year; however, due to labor strife the PLE was restructured in agreement between the director and the Elementary Teachers of Ontario (ETFO) Thames Valley (TVTL) local president. The director agreed to give the unused monies from the previous year (as some teachers did not use their PLE) to the TVTL; in return TVTL would hold workshops at their local office for teachers to attend. In this final year (2012/2013) teachers no longer where required to fill in the paper work prior to attending; however, they had to attend one of the local workshops in order to receive the benefit. The TVT local built a roster of workshops (all delivered by actual classroom teachers) that where created out of the needs of teachers through survey and discussion.

When teachers were given the opportunity to choose the format, the structure, the content, and the timing of the PD the TVDSB and the ETFO TVT local where being respectful to the characteristics of adult learning. First, teachers were allowed to completely self-direct their learning (MacKeracher, 2004). Secondly, teachers could choose a type of learning situation (directed workshop, book review, classroom observation) that best fit their own personal learning styles (MacKeracher, 2004). Thirdly, while allowing the openness to the PD the TVDSB and the ETFO TVT local where respecting the individual teachers sense of self and allowing them to build on what they knew (MacKeracher, 2004). Finally, giving the individual teacher the opportunity to choose the timing supported the idea that adults learn best when well rested, and not in distress

(MacKeracher, 2004). PLEs can support the teacher as professionals, while meeting their immediate needs, which supports growth in the teacher's pedagogy.

RECOMMENDATIONS

James and McCormick (2009) argue that cultures, structures, and political decisions need to be developed to support teacher learning that will influence ongoing practice. In this section I will make recommendations to the stakeholders who influence, guide, and require teacher professional development.

Politicians

In Ontario the public school boards are funded 100% by the provincial government. The Ministry of Education (MOE) is mandated to administer the system of publicly funded elementary and secondary school education in Ontario (MOE, 2013a). The MOE states on their website three goals; high levels of student achievement; reduced gaps in student achievement; and high levels of public confidence in public education (MOE, 2013a). The MOE recognizes that in order to achieve the aforementioned goals they are required to create supporting conditions (MOE, 2013b). Two of the conditions that the MOE suggest supporting have a direct impact on teacher PD. The first being professional learning, the MOE states that they are committed to the PD of staff to ensure that they have the latest knowledge and skills (MOE, 2013b). The ministry has released lithographs on both PLCs and action research (LNS, 2007; LNS 2008). As well, the ministry has a *Teacher Learning and Leadership Program for experienced teachers,* a program by which teacher can submit a proposal to participate in self directed professional development that may be an action research project (MOE, 2013). What better way to support teachers in gaining the latest, most applicable and appropriate skills; PLCs to ensure that they have a support system; action research to allow teachers the opportunity to test their skills; and PLEs to give teachers the opportunity to address their personal gaps in pedagogy.

The second supporting condition refers to the leadership in the school and school board. The MOE states that they support school principals in building relationships and working together (MOE, 2013b). Further the Literacy and Numeracy Secretariat (LNS) a branch of the MOE suggests that leaders: create a shared sense of purpose and direction; leaders work both with and through people; and finally that although there

is often a leader within a school, leadership can be through a distributed model (LNS, 2011). When principals are members of the PLCs, they can build the relationships that the MOE suggests. As principals support action research they encourage self-reflection and professional dialogue between teachers and themselves (Dufour et al., 2002; Louis, 2008). Finally, when principals encourage and value self selected PLEs they build capacity within their schools.

I would encourage the MOE to continue to release lithographs on the value of PLCs and action research, and allocate monies for release time for teacher to collaborate, plan, reflect on their goals in their PLCs, and their paths for their action research. Although the MOE has the program that teachers can apply for; I would suggest that the *Teacher Learning and Leadership* be more accessible to teachers (MOE, 2013). Rather than have the action research be a separate learning opportunity, encourage it to be embedded into their practice with a more accessible funding program (Dawson, 2013). And finally, as the shift from local bargaining to provincial memorandum of understanding happens, I would encourage the MOE to work with teachers unions to negotiate PLEs into the understanding to ensure that teachers have the opportunity to be active participants in their learning (Government of Ontario, 2012).

Teacher Federations

The Teaching Profession Act of 1944 established the Ontario Teachers' Federation (OTF) and required all teachers in publically funded institutions to be members of the OTF. The OTF is comprised of 4 affiliates: the Elementary Teachers' Federation of Ontario (ETFO), l'Association des enseignantes et des enseignants franco-ontariens (AEFO), the Ontario English Catholic Teachers' Association (OECTA), and the Ontario Secondary School Teachers' Federation (OSSTF) (ETFO, 2013b). All four federations have the potential to play a significant role in support teacher's self-directed professional development (ETFO, 2013a). ETFO in particular has worked diligently to provide their members with professional learning that is characterized by its relevance, with a focus on social justice and equity, and being teacher-friendly (ETFO, 2013c). ETFO is committed to continue their efforts to ensure that teachers have access to the best professional learning in Ontario (ETFO, 2013c). ETFO has supported members through many PD opportunities (workshops, conferences, additional qualifications, book clubs, summer academy etc.). One opportunity in particular focused on building action research capacity, *Reflections on Practice: A Women's Leadership Initiative;*

participants are given 6 days of release time to collaborate with colleagues across the province, learn about action research, plan, implement, and analyze their own action research project (ETFO, 2013d). Recently, ETFO published *Teachers Learning Together: Lessons from Collaborative Action Research in Practice* (Dawson, 2013) an edited collection of chapters discussing the impacts of action research on teacher empowerment, collaboration, leadership, people, professional beliefs, and pedagogy. With the data that ETFO has gathered over the years on action research I would suggest that as they sit at the bargaining table with the provincial government that they use the data to lobby for support for teachers to participate in action research projects.

As the shift from local bargaining (between individual school boards and the teacher local) to provincial memorandums of understanding happens the OTF should be inclined to consider the model of the PLEs within the Thames Valley District school board as an example to support the adult learners in Ontario to address their personal needs.

Teachers

Reflecting back on MacKeracher assumptions on adult learners: they have a breadth of experience to draw from; they learn best when they are involved in creating the learning objectives for themselves; adults are motivated to learning in order to address real life tasks; and adults are self-directed learners, it would seem that teachers are ideal examples of adult learners (MacKeracher, 2004). So why in the past have they not pressured the hierarchy for more control over their professional development? Some may argue that it is due to the "I'm just a teacher" syndrome; that when teachers take on their role they automatically take their place in the hierarchy of the school system; they are the subordinates to the principal and to the board (Helterbran, 2010). I would suggest that as teachers gain experience and empowerment through PLCs, action research, and PLEs the positive impacts that they have on their pedagogy will not only encourage them to seek out paths for their own self direction but create their new paths as well (Jarvis & Wideman, 2013).

Finally, as Ontario makes the commitment to move from great to excellence; it would be to the students' benefit for the stakeholders to remember that the real strength of the accomplishment in Ontario over the last nine years has been the shared ownership between teachers, schools and school board leaders (Fullan, 2013). From the shared commitment a high level of new individual and collective capacity has developed (Fullan, 2013). The collective capacity can increase and spread through

open and critical dialogue, key components to the PLC; rigorous evaluation and reflection, characteristics of action research; and knowledge gap closure a result of PLCs. Action research, PLCs, and PLEs are meaningful and authentic learning experiences for teachers that have the potential to support teachers on their journey from great to excellent.

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SHERRY THOMPSON

CHAPTER 9

EFFECTIVE PROFESSIONAL DEVELOPMENT DESIGN AND IMPLEMENTATION FOR EDUCATION

While most employers require some type of on the job training, teachers are required to become lifelong learners as part of the Ontario College of Teachers' Standards of Practice. Teachers are also expected to maintain a high level of professional knowledge to inform professional judgement in practice (Ontario College of Teachers, 2012). Therefore, it is essential that teachers be given access to quality professional development opportunities. Unfortunately, designing and providing effective professional development is more difficult than at first glance. I believe that effective professional development for teachers is part of a complex system. It must be rooted in adult learning partnership principals; recognizing individual learning goals and system goals and embedded in the context in which the learning occurs. The learning outcomes of effective professional development should include: conceptual change, reflective thinking, experimentation and innovation (Smylie, 1995).

My goal is to provide school educational leaders (formal and informal), and those involved in creating policy for learning organizations with recommendations for evidence-based, effective professional development practices. If successfully implemented, professional development can improve student learning outcomes and teacher job satisfaction (Fullan, 2002; Hargreaves, 2004). As a special education teacher with 12 years of experience, I consider myself an advocate for the teaching profession and a life-long learner. Throughout the chapter, I will reflect on my experiences as an adult learner and facilitator of professional development.

The chapter will be organized into four main sections. First, I will discuss why "learning" organizations are essential in twenty-first century education. Next, I will attempt to provide a definition of professional development and an overview of evidence based, effective types of learning opportunities. I will then provide effective strategies for facilitating a culture of learning in organizations by drawing from the fields of psychology, sociology, adult learning, educational leadership and business, and my own experiences as an elementary teacher in Ontario's public education system. Finally, I will propose a framework by which leaders in educational institutions can base their professional development programming to maximize positive learning outcomes for teachers and ultimately; student success.

Learning Organizations in Twenty-first Century Education

There are two main themes in twenty-first century education; accountability and change (Fullan, 2002; Hargreaves, 2004). Government policy is driven by accountability to stakeholders and by an economic need to remain competitive in our global economy. A dominant assumption exists in policy development; if governments create reform policies for schools, they are demonstrating a commitment to developing future competitive workers. Although changing policy and proclaiming education reform looks good on paper, it assumes issues in education can be solved by rational decision making (Levin, 2010).

Traditional methods of professional development make (faulty) assumptions about teacher learning. From this perspective, if policy mandates professional development for teachers, then teachers will learn how to teach more effectively and student success will increase. "Traditional professional development" usually involves delivery that is instructor-centred. The frequency is intermittent and often in isolation from schools and classrooms (Darling-Hammond, et al., 2009).

I have experienced the traditional model for the majority of my career. I believe real learning and improved student outcomes are far more complex than can be solved with rationalist policy. A major assumption I make in this chapter is that all teachers want to do their best for themselves and for their students. Teachers are adult learners, and traditional professional development methods do not follow the principals of adult learning which will be discussed in detail, later in this chapter (MacKeracher, 2004).

Change is the other dominant theme in education, leading to the assumption that teachers must change to adapt to a constantly changing

society (Fullan, 2002). Teachers are expected to teach in ways they were not taught themselves (MacKeracher, 2004). For example, technological advancements leave many educators feeling lost, trying to independently implement technology in their classrooms.

We need educators to shift their mindset from traditional to progressive teaching methods. In the traditional paradigm, the subject matter is most important; teaching methods involve rote learning, the teacher is the center of the learning in the classroom, and students are empty vessels to be filled with knowledge (Jarvis, 2010). More recently, student-centered learning, individual instruction, informality in classrooms, group discussion along with emphasis on arts and physical-education are viewed as more effective teaching methodologies (Owens & Valesky, 2011). MacKeracher (2004) argues that teachers are likely to revert to their philosophical orientation based on how they were taught; therefore we need to emphasize the process of learning over content knowledge. Change in teaching means changing the understanding that underlies that teaching (Katz & Dack, 2013).

In summary, the demands on teachers are increasing with higher standards for teaching and student learning, and a more diverse population of students (Darling-Hammond, 2006). Education reform is stronger when based on research evidence and what is known about effective teaching (Levin, 2010). The field of education is producing a larger than ever volume of research that supports the idea that intensive, effective professional development increases student achievement. (Darling-Hammond et al., 2009). Despite this increase in an evidence knowledge base, policy and design of professional development remains largely unchanged (and ineffective) (Cornett & Knight, 2009; Gravani, 2012; Katz & Dack, 2013; Webster-Wright, 2009). We need to change how we learn in learning organizations.

Professional Development for Teaching Professionals

First, we need to distinguish between the terms, “professional development” and “professional learning”. According to MacKeracher (2004), professional development is the purposeful delivery of a training program and professional learning is the result of that exposure to training. It is not enough to participate in professional development; effective professional development should produce a permanent change in behaviour (learning) (Katz & Dack, 2013). Learning then, is something done by the learner, and not something done to, or for the learner (MacKeracher, 2004).

In my experience, colleagues often feel discouraged after attending traditional forms of professional development such as board-mandated workshops and/or conferences. When teachers feel professional development is ineffective, no new learning occurs and the status quo is maintained (Katz & Dack, 2013). Katz and Dack (2013) go even further by stating, even if professional development is viewed as effective, it is in fact not effective unless previously held beliefs are challenged, and behaviour changes.

As I mentioned earlier, some organizers of traditional professional development assume a linear, rational process of teacher learning. Many researchers agree it is a mistake to oversimplify the process of teacher learning (Knight, 2011, Opfer & Pedder, 2011; Gravani, 2012). Opfer and Pedder (2011) argue that professional development involves three sub-systems; the teacher, the school and the learning activity which interact and combine complex ways to influence teacher learning. Gravani (2012) suggests we focus on professional learning in school contexts, instead of viewing professional development and professional learning as discrete concepts. In this view we challenge the assumption that teachers must be led by "experts"; prior experience is valued, and new learning is constructed by groups of teachers working together to improve student outcomes. If the principles of adult learning are valued, motivation for learning will increase (MacKeracher, 2004).

Broad and Evans (2006) argue there is no single, linear pathway for teachers, and career paths are often cyclical. Teachers as adult learners, bring varying amounts of prior experience to their practice (MacKeracher, 2004). Teachers form a highly diverse population, who are in various stages of adulthood, and therefore differentiation of professional development practice is critical (Broad & Evans, 2006). Adult learner motivation is linked to relevance, meaning and choice which should build competence and a sense of self-efficacy among teachers (Bandura, 1982; Broad & Evans, 2006). Self-efficacy is defined as a future oriented belief about the level of competence that a person expects he or she will display in a given situation (Bandura, 1982). Teacher self-efficacy has been linked to job satisfaction and lower rates of teacher burnout (Friedman, 2000). It would seem that teachers in Ontario need less coercion and control and more support to improve and refine teaching practices. This practice is emerging in Ontario; but is more developed in education systems such as Finland and Singapore (Levin, 2010).

If we accept the model of professional development proposed by Opfer and Pedder (2011), we see teacher learning patterns are complicated and therefore difficult to research. They argue that professional

development should be conceptualized as a system, and not as an event. Vermunt and Endedijk (2011) suggest the need for study in which the relationships between learning activities, regulation of learning, beliefs about learning, motivations to learn, learning outcomes, and personal and contextual factors are included. In my experience, professional learning can be subtle and cannot be reliably or effectively measured. I think we should challenge the assumption that everything in education should and can be measured.

Professional development activities that are available to teachers vary greatly. They can include, but are not limited to; workshops, conferences, peer coaching, observation, professional reading, learning cycles, action research, and critical friends. Professional development can be self-directed or system (school, Ministry of Education, teacher federation) led (Broad & Evans, 2006).

Although perhaps too qualitative due to the complexity of adult learning, available research indicates that effective professional development programs share the following characteristics; the linking of professional development to student learning and professional standards for learning; the provision of varied learning processes and practices within a learning framework; the incorporation of assessment of professional growth and attainment of program goals; and ensuring reflection and forward planning are part of the professional development cycle. Professional development should be job-embedded, focus on student and teacher learning goals, and rooted in evidence based knowledge, through the allocation of time, resources and other supportive structures (Broad & Evans, 2006, p.4). The research cited above was gathered for the Ontario Ministry of Education and some may argue this type of literature seeks to maintain control and power over teachers in the education system (Gravani, 2012; Levin, 2010).

Even though researchers have identified common characteristics, or "best practices" for professional development; professional learning may, or may not occur depending on the interaction between the learner and the activity. Professional development, in reality, often ignores adult principles of learning and is episodic and disconnected from classroom practice. I have facilitated and attended many forms of professional development. As a presenter, I often wonder if participants will go back to their classrooms and change their practice as a result of attending my session. I have no way of following up with them to check in, or provide ongoing support. Knight (2011) argues that workshops can be useful for introducing a concept or idea, but it is what happens after a conference or workshop is most important.

As a participant in workshops and conferences, I am a critical consumer of information. I do not often change my practice immediately after attending a session. I take time to reflect, gather additional information if needed, consult with colleagues and only then do I attempt to make a change in my practice. I believe you must analyse your beliefs before you can implement change into practice.

Despite the research that identifies how professional learning occurs; content focused delivery of information still dominates professional development practice (Webster-Wright, 2009). Katz and Dack (2013) refer to content learning as learning "activities", which most teachers view as professional learning but rarely produce changes in behaviour. For example, if a group of teachers attend a workshop on how to use iPads in the classroom and the focus is on the tool itself, the learning, or the "why" behind the use of the tool is missing. We need to focus on learning how to learn so we can give students the same opportunity. MacKeracher (2004) argues that like learning, learning to learn can be thought of as both a goal or outcome and a process.

Regardless of the activity, Knight (2011) argues that professional development designers need to keep partnership principles of adult learning at the forefront. The partnership principles are rooted in adult learning theory and draw from the disciplines of business, psychology, sociology, and education (Knight, 2011). The principles provide an excellent and useful framework to guide leaders in education in providing professional development opportunities in schools.

The principles of adult learning partnerships include equality, choice, voice, reflection, dialogue, praxis, and reciprocity (Knight, 2011). A professional development facilitator could be a peer coach, a consultant, a workshop presenter, colleague, principal or anyone else in the position of promoting professional learning. The first principle, equality is achieved when the facilitator sees him or herself as an equal partner in a helping relationship. Facilitators must be genuine and respectful to all opinions and see training occurring with teachers and not something done to them.

Teachers also need to be offered the right balance of choice in their professional development. They need to be able to choose to attend, or not attend the topic that is most relevant to the learner at that point in time (Gravani, 2012). Knight (2011) warns too much choice may create chaos, so choice should be offered within a structure or vision (Fullan, 2002). I believe if your goal involves student achievement and well-being, you are always morally justified in that goal.

Teachers should feel they have a voice; and that their opinions and

prior knowledge are valued. Facilitators should actively listen, and encourage participants to share ideas by using dialogue and reflection activities. It can be empowering for teachers to feel safe enough to challenge ideas and to say what they really think. According to Short (1994), empowerment is a process whereby school participants develop the competence to take charge of their own growth and resolve their own problems. Empowered teachers believe they have the skills and knowledge to act on a situation and improve it (p. 488). Katz and Dack (2013) argue that when teachers are not comfortable challenging ideas; learning does not occur and the status quo is unchanged. For learning to occur, we must interrupt biases and challenge existing beliefs.

Teachers must engage in active reflection and have freedom to make sense of the proposed learning. The presenter can provide information, but the participant decides what to do with it. Reflection is only possible when people have the freedom to accept or reject what they are learning as they see fit (Knight, 2011).

Knight (2011) argues that engaging, rigorous dialogue should be the goal of every professional development meeting. As mentioned earlier, teachers are a very heterogeneous group of professionals with an abundance of prior knowledge and experience (MacKeracher, 2004). Learning is fostered by "bouncing" ideas around; forming a community of thought.

The principle of praxis acknowledges that adult learners need active involvement with learning objectives that are immediately useful and job related (Gravani, 2012). Knight (2011) suggests facilitators should want participants to learn new ways to help students, to think about what they do and to change for the better. To accomplish this goal, facilitators should give participants a chance to ponder how they can apply new ideas to their real life practices.

The final principle Knight (2011) lists, involves reciprocity. Educators should expect to "get" as much as they "give" when helping others. It is part of the reciprocal nature of teaching and learning in adult learning theory (MacKeracher, 2004). Gravani (2012) argues all of the above principles must occur in an accepting, supportive atmosphere. If learning is best done in the context in which it occurs, then we must next examine the school environment (MacKeracher, 2004).

Facilitating Learning Organizations

The third factor in conceptualizing professional development identified by Opfer and Pedder (2011), but often overlooked, is the school

environment. If we know that intensive, well designed professional learning is linked to increased student achievement than we must prioritize the implementation of effective professional development practices. The environment of the organization is more than physical; it includes the social and psychological characteristics of the human system. Administrators are responsible for establishing internal arrangements of the organization to maximize its effectiveness (Owens & Valesky, 2011). Knight (2011) argues that reflection is a part of all forms of professional learning. Great teachers are thinking all the time and great leaders are encouraging and cultivating the culture of schools to attract such people (Fullan, 2002; Knight, 2011).

I think professional learning can be influenced positively or negatively depending on the school culture and climate. We watch how others behave in order to copy their behaviour so we can fit in (Jarvis, 2010). If the majority of teachers in a school are actively involved in professional learning; the rest will be more likely to join the learning community to fit in. The leaders in the school (principal and teacher leaders), have the responsibility of maintaining the learning "garden" so that it will thrive and negativity (weeds) will wither.

Professional Learning Communities (PLCs) have gained in popularity and are based on learning organisation theory (Senge, 1990). An effective school leader will enable the collaborative learning process, instead of trying to control it. This can be a difficult paradigm shift for school administrators working in a hierarchical system. Often this is the reason PLCs can become dysfunctional and inadvertently mutate into the "traditional" concept of professional development delivery. That is, as a meeting lead by an expert, training teachers, and assuming they will take the knowledge and apply it in their classrooms (Hairon & Dimmock, 2012). Prior experience may also determine levels of self-determination in teacher learning. Some teachers may have been conditioned to take a more passive role in learning as a result of hierarchal traditions (Knowles, 1980).

We need our school leaders to provide supportive leadership by enhancing existing supports (time and resources), leading a collective school vision, and building trust and collegial relationships between staff members (Gravani, 2012; Leithwood, Leonard, & Sharratt, 1998). These are known as transformational leadership practices and they can improve teacher motivation, experimentation (risk taking) and reflection (Thoonen, Sleegers, Oort, Peetsma, & Geijsel, 2011). Teachers' sense self-efficacy is the most important motivational factor for teacher learning and can be positively or negatively influenced by school leaders (Kurt, Duyar, &

Temel, 2012).

A common assumption about school systems is that sharing occurs regularly. I think teaching can be a very isolating job and can look more like a collection of silos than a collaborative group. Leaders need to foster collaboration between teachers and access the wealth of experience and prior knowledge in the building (Bruce, 2013; Fullan, 2002).

Teachers need to feel empowered and competent so that they may work to solve issues in their classrooms instead of waiting for an "expert" to visit and provide direction. Knight (2011) argues we need a balance of expert intervention and self-direction in our professional learning. He calls this type of professional development and learning "instructional coaching", where teachers work together as critical friends to improve instructional practice. Instructional coaching is an effective method of professional development as it is a balance between content and process. The learning is immersed in context as it occurs in the classroom setting and is based on adult learning principles (Knight, 2011).

Bruce (2013) investigated "collaborative action research", which involves systematic inquiry where educators take the initiative to encourage and engage in educational improvements with colleagues. This form of professional development is also highly effective and based on the adult learning principles cited in Knight (2011) and MacKeracher (2004).

Implications for Professional Development Design

Whatever form professional development takes does not seem to matter as long as the principles of adult learning are followed and teacher professional learning is supported in organizational culture. In this chapter I have argued for a change in the design and delivery of professional development in the teaching profession. Professional development and learning is a complex system but when adult learning partnership principals are honoured, individual learning goals are recognized and the learning is embedded in the context in which the learning occurs. The outcomes are positive for students and teachers.

In an era of accountability, there will be those who will call for evaluation of the effectiveness of professional development. As mentioned earlier, it is difficult to assess change in teacher behaviour. Change may not occur immediately or even consciously and it certainly cannot be evaluated with presenter evaluations or questionnaires immediately after a presentation.

Regardless, many researchers claim that effective forms of teacher learning and collaboration can produce positive effects for teachers and

their students (Bruce, 2013; Knowles, 1980). Bruce (2013) argues that professional development that is teacher directed and collaborative produces shifts in teaching perspectives and practices, increases teacher self-efficacy and the ability of teachers to overcome challenges. Collaborative inquiry also leads to teacher confidence in sharing their findings with others which results in an increase in teacher leadership capacity.

I took part in professional development early in my career which taught me how to conduct action research projects. As a result of my participation in the workshop; I developed the skills listed in above (Bruce, 2013). As a result, I believe I am a better teacher and an advocate for the teaching profession as a workshop facilitator and professional development organizer. I also experience a high degree of self-efficacy and job satisfaction.

Webster-Wright (2009) argues we must move away from traditional assumptions about professional development as content providing and "training"; to understanding authentic professional learning and supporting this learning in its various contexts. This view challenges the assumption that one must "receive training" and provides a more holistic conceptualization of professional learning. We should all assume teachers are professionals who are dedicated to lifelong learning and seek to understand the social construction of such knowledge.

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CATHARINE DISHKE HONDZEL

CHAPTER 10

DEVELOPING WISDOM IN CONTEXT: COGNITIVE, SOCIAL, AND REFLEXIVE EDUCATION IN ADULTHOOD

INTRODUCTION

Learning is at once simple, yet complex. As children and adults we learn every day, in every place and in many diverse spaces. These spaces include schools, fields, shops, at a workplace, in our homes (or the homes of others), by ourselves, and with others. Oftentimes we don't recognize when we are learning (especially outside of formal educational setting), simply because it is a natural process that comes as a part of being and we don't need to attend to it- as MacKeracher (2004) reminds us, "it is as much grounded in the physical structure and physiology of the brain as it is in the cognitive constructs and processes of the mind" (p.13); it is a part of who we are as humans, yet still contains an element of fascination educational researchers and psychologists find impossible to ignore. This is clearly seen in the countless tomes of literature created to analyze our learning behaviour. Yet no theory or framework has yet to be universally adopted as a reasonable explanation of what comprises the essence of learning, and to the best of my knowledge, no one has yet proposed a uniform, universally accepted way to explain how knowledge and wisdom are acquired. This chapter does not purport to hold the key to what the essence of, or problem of learning is. The forthcoming literature review aims to do two things, only one of which will be recognizable to the reader. The first (invisible) purpose of this literature review is to organize my own thoughts, reactions, and conceptions of adult learning theory, with an emphasis on (situated) cognition, learning styles, and reflective

practice within my own locus of prior experience and understanding. The second, and hopefully visible, purpose of this chapter is to synthesise how a few spheres of personal and environmental (specifically social) experience relate to learning. As stated earlier, learning is a broad field of inquiry with many questions yet unanswered. In order to create a manageable project, the overarching theme of this report is on the context (what Lindeman (1961) refers to as *situations*) in which learning occurs, drawing inspiration from Lewin's (1936, as cited in MacKeracher, 2004) often referenced model that behaviour is a function of a person and her environment: B(*f*)PE. Understanding has also been drawn from Vygotsky's (1978) conceptions that human activities take place within the various contexts of culture, beliefs, values, knowledge, skills, relationships, and symbols. This chapter will conclude with an argument that experiential learning provides an ideal environment in which people (especially adults) can learn very effectively, drawing on historical knowledge related to human evolution.

ADULT LEARNING

The majority of adults do not live in a world contained within the parallel divisions of academic disciplines, but in a place where concepts straddle what those in academia would typically put into silos, and where ideas reflect the practical needs of the community and the environment. Looking at tangible example, office workers must bridge human relations, problem-solving, their own distinct specialities (like research or accounting), as well as management hierarchies and leadership roles. All of those elements may contain understanding derived from the liberal arts, social sciences, or humanities, and reflect the need to solve real problems in situations within a specific context. Those working in fields such as engineering or construction may draw as much from understandings of math and physics as they do from personal understandings of human nature and cost-accounting. In a real sense, the adult world looks remarkably dissimilar from the institutionalized academic world in which it is likely most of the participants were 'formally' educated as children. Much of the literature on adult learning reviewed up to this point reflects a general understanding that adult learning (andragogy) is fundamentally different than child learning (pedagogy) for this very reason. Historically, andragogy, or adult education, refers to educational programs differentiated from those of children, designed specifically for adults and with attention paid to the process and practice of life-long education (Merriam, 2001). Underpinning the field is an understanding that adults

have the life experience to recognize the blurred lines between genres, and have learned informally that knowledge cannot be contained under a restricted label. Knowles (1980, as cited in Merriam, 2001) and Lindeman (1926, as cited in Shapiro, 2003) described five assumptions underlying andragogy which identified adult learners as different from their counterparts in childhood. The assumptions included the following: (1) adult learners are self-directed, (2) they have a collection of life experiences they can draw on, (3) adult learning needs are associated with the changing nature of social roles, (4) application of knowledge and practicality are of particular importance, and (5) motivation in adults is intrinsic, rather than extrinsic. These five assumptions speak to the fundamental difference life experiences and a gradual coming-to-understanding of blurred genres that must be learned post- formal education.

Within the boundaries of a pedagogical institution, learning in the efficient sense happens removed from context. It is foisted onto students as if a backpack, and an expectation that an understanding of numeracy, literacy, and social relations can be carried with them without reference to practical application. This apparently assumes children have little practical experience upon which to draw-- and perhaps this makes sense within the specialized field of pedagogical curriculum development, but that contentious issue will not be addressed within this chapter. When we turn back to understanding how adults learn, we are allowed to recognize that they have a joint role in the learning process. This does not mean that learning is without structure or guidance from an individual with a plan, but that life experience can be re-cast in a way that allows adult learners to reflect in a meaningful and developmental way upon how their life experiences have shaped their understanding of the world and their place within it. This is a cornerstone of engaging adults in reflection, but also capitalizing on intrinsic motivation to increase skills and knowledge (Merriam, 2001).

Social Learning

Andragogy also places special emphasis on the social processes involved in creating knowledge, and that contrary to what children are often taught, individual effort does not correlate directly with learning outcomes. Learning is for all people, a social and interactive experience, and for adults it is particularly affective -- that is involving the emotions as well as one's cognitive ability (Schapiro, 2003). In adult learning, the importance of the social aspect does not go unnoticed. Lauzon (1998)

philosophizes about this in his reflection on the various meanings of connectedness, and discusses how adult learning and training are an interactive, collaborative process that respect and reflect individual differences. His *psychology of the soul* (1998) speaks to the nature of our own existence, and the ways in which our connections to each other make learning and education meaningful. As we understand each other, those connections become deeper, and ultimately create a transformative learning experience from which students can understand oppression, politics, and the construction of personal knowledge. MacKeracher (2004) digs deeper into the connectedness of adult learning, and discusses how belonging to a learning environment means establishing connections to not only a facilitator but to other learners. I would add to that the importance of connectedness to the broader community of 'other learners'. By that I refer to one's family, friends, and colleagues, not only within a formal learning environment, but informally as well. It is nearly impossible to contain knowledge acquisition within a specific environment, and thus it leaches into home and personal life in a fluid manner-- the best discussions in-class often find themselves reappearing outside, in my experience. MacKeracher illustrates the problem of putting knowledge into silos when she indicates that "formal education tries to convince us to learn alone, when during the rest of our life we actually learn in relationship" (p.152). It is here that a discussion of gender differences may be warranted, but I feel that discussion may detract from the mission of this particular chapter. Safe be it to say, that gender differences certainly contribute to the ways in which we learn (Gilligan, 1982; MacKeracher, 2004), as well as the ways we are variously socialized to learn, but in a broader context we typically exist in mixed-gender groups where the context of learning is shared. Hansman (2001) adds her thoughts to this relational nature of learning in general, recalling her own challenges within a particular professional adult learning experience and the peculiar interaction of people within a contrived learning situation. Her argument espouses the nature of learning in context, and the various interactions and intersections among people, tools and context within a learning situation. Within what she refers to as ‘context-based learning’, learners share in the design, process, and evaluation of their learning activities. She states that “as active members of communities of practice, adult learners can discover, shape, and make explicit their own knowledge, thus intensifying the intriguing discussion about what counts for knowledge and learning in adulthood” (p.50). This attentiveness to the particular developmental needs of adults, as well as the attention to context, stands in contrast to pedagogical methods that

contrive place and space as below the importance of curriculum. A further and more extensive critical examination of how social learning occurs *in situ* is required in order to embrace an understanding of how social learning occurs.

Emotional Reactions

Affectively, emotional engagement and provocation in learning is tantamount to gaining knowledge. As adults, we are better able to not only recognize the emotions we are experiencing, but place labels on them and make reference to other situations in which the same emotions are triggered (Kidd, 1973). This emotional understanding or emotional intelligence (Salovey & Mayer, 1990) reflects our growing familiarity with our emotions as well as an enhanced ability to control and manage emotions with practice. Emotional arousal can be both positive and negative, conceptualized as a deviation from optimal levels of functioning reflecting a psychological stress (MacKeracher, 2004; Selye, 1956). Along with neurochemical changes, this stress response, depending on the situation and interpretation, can lead to engagement with or disassociation with learning. Kidd (1973) argues that due to the accumulation of greater amounts of life experience, adults have more emotional associations with learning than children. Thus a strength andragogical teaching practices can rely on is the foundational assumption that adults will have had life experiences tied to stress responses and these can be used as the foundation for future learning. It is important to add here that there is also a chance that adults who have had negative emotional experiences closely tied to formal learning situations may have strong avoidance reaction with regard to learning environments. Traumas or damaged self-esteem in a particularly punitive, abusive, or non-supportive learning environment can lead to resistance to being taught in adulthood (Merriam, 2001). These particular emotional experiences serve to reinforce our understanding that emotions in themselves are particularly educational and memorable, however provide a secondary challenge for the adult educator. Effective communication with those experiencing angry, fearful, or hostile states are bound to fail, and facilitators of adult learning require a set of skills and adeptness in reducing the stress state before an engaged learning process can begin (Kidd, 1973). Within a context of adult learning, it is then critical to recognize that the personal context including emotions and social relationships are interdependent, and rely on foundational conceptions and philosophies that acknowledge learning is not solely independent, but a process of mutual development.

Self-Directed Learning

Adult learning has at times been synonymous with what is now referred to as self-directed, or autonomous learning. This misnomer comes from the assumption that all adults should ideally reach a point in their development where they have enough efficacy and intelligence to be able to make effective, independent decisions and set appropriate learning goals. Self-direction from the outside appears to equate with autonomy or independent learning, without the typical need for instructor or facilitator intervention. Adults, as has already been argued, should have a generous capacity to draw from life experience and previous learning in order to develop new understandings. Additionally, adults have an intrinsic motivation to learn- much the same as we expect children to have an intrinsic love of learning and curiosity about the world around them (MacKeracher, 2004). In reality, all students, including adults, "have varying abilities to respond to teaching that requires them to be self-directed" (Grow, 1991). Each learner arrives in a learning situation- be it work, school, or home at a varying level of readiness and with a different level of ability and motivation that create the conditions for effective learning to happen. Self-direction then becomes not the mark of an adult learner, but an ideal state to be reached, and to which a teacher of adults should scaffold teaching methods in order to allow the student to arrive at when she is ready. By giving a student the right tools, access to a rich learning environment, proper information, and (very importantly) practice to do so in an effective and meaningful way, it is possible that self-directed learning can occur. An additional point to understand coming out of the self-directed learning literature is that learners may be self-directed only situationally (Grow, 1991). Grow (1991) identifies four different stages of self-directedness in his model, each stage being progressively more self-directed than the one before. The stages progress from (1) fully dependent student, through (2) interested student, (3) involved student, and finally (4) self-directed student. With these categorizations, he argues that there may be some situations in which students are more dependent on the teacher to provide authority and immediate feedback, while other situations in which the same student may be fully autonomous and self-directed. The role of the teacher is then to gradually provide students with the kind of teaching that reaches them at the level they are currently in, and lead them to greater levels of self-direction over time. In saying this, Grow (1994) later argues that self-direction should not be considered a quality like psychological maturity. It is more appropriately revealed to be a means of specific student-centred learning, in which the teacher is aware

of how capable and how well students understand the concepts they are being asked to learn. When students are disengaged because the material is beyond their level of comprehension or skill set, the instructor then needs to re-evaluate the capabilities individual students have for self-direction (Grow, 1994). Methods of teaching to create self-directed learners then begins to look remarkably similar to simply good teaching which is always responsive to the unique strengths and challenges of individual students.

Yet in all this, it is important to recall the wisdom of Chené (1983). In her paper on the autonomy of adult education, she recognizes that even though autonomy (self-direction) has been traditionally considered to be the apex goal of teaching adults, she remains sceptical that self-direction is actually what we should be striving to achieve. Though intuitively, and especially after reading Grow (1991, 1994) it seems logical to try and help students to reach a point where they no longer need a teacher, removing the teacher or teachers from the equation bridges the two synonymous but not necessarily equivalent qualities of autonomy and independence. When a learner is independent, she is alone, and regretfully neglects the shared wisdom of the collective, as well as the continuous need to re-evaluate learning goals and implement the most appropriate learning strategies. Chené places high importance on the role of teachers as educators, and asks the reader to remember the value of "collaboration, exchange, and participation. Self-directed learners often need assistance because they do not know what resources are available or what activities are necessary for learning" (p.42). Though she does not dismiss awareness of autonomy, and coaching students to a point where they have the ability to shape their own learning in a meaningful way, complete self-directedness in adult learning may neglect the very important relational component of learning.

Lastly, to end this section, it should be noted that self-directedness in learning is a uniquely Western trait, valued by individualistic cultures more so than collectivist (MacKeracher, 2004). When we recognize our own biases in what we look for in learners from our own distinctly cultural perspective, it serves to evaluate what precisely we mean by creating self-directed learners, and in what contexts that goal serves a meaningful and forward-thinking purpose. This is especially important to remember as our classrooms become more multicultural, we reach new heights of globalization, and we encourage students to hold on to the values and ideologies of their cultural and ethnic identities.

Thinking and Cognition

To understand how adults learn, it is of value to explore the ways in which individuals think, and how we conceptualize thinking in context-specific ways. When we attempt to determine how memory is recalled, attention is directed, and ideas come to mind, we rely on our understanding of how we come to view our environment as well as the others within it. Thus all learning is situated, in that it is fundamentally influenced by the activity, context, and culture in which it is developed and used (Brown, Collins & Duguid, 1989) as well as directly and indirectly influenced by prior experience, environmental demands and constraints, knowledge, abstract representations, and unique mental models (Clancey, 1995). The Theory of Situated Cognition relies on the core belief that the human brain is sophisticated and processes information efficiently, dynamically, contextually, and without undue effort. In a tangible sense, this means that, "instead of building up detailed internal models of the world that require continuous and costly updating, it pays to look up relevant information from the world on an as-needed basis" (Robbins & Aydede, 2009; p.7). This requires that we draw on the environment, culture, accessible sensory information, schemas, and conditioning to make decisions and solve problems. Situated cognition relates to how knowledge is created every day, not in one specific location or within a fixed laboratory setting. This non-localized learning environment then shapes education, as many methods of didactic teaching assume a cognitive separation between knowing and doing—treating knowledge as integral and self-sufficient, independent of the situations in which it is learned and used (Brown, Collins & Duguid, 1989). Adult learning, as has already been addressed is certainly non-localized. Ideas and concepts spill out of the classroom and workplace and spread into social reactions, relationships, personal emotional responses, and are influenced directly and indirectly by our culture and prior experience. A framework of adult learning is incomplete if we only attend to behaviouristic or information-processing theories that reduce learning to laboratory punishment/reinforcement, or computer-based models of mind. Additionally, our theories of cognition shape the way that we view learners- their capabilities and potential, as well as the ways in which they are taught. Certainly no two learners are identical, thus teaching methods must be shaped and directed to suit individual needs. Contextually then, teachers and learners must be prepared to challenge thoughts and assumptions in relativistic ways, using non-linear problem solving methods alongside traditional methods with a purpose.

With regard to the context of learning environments then, investigating the role of situated cognition means that the whole learning environment, not just the classroom environment or student-teacher interaction needs to be studied. We know that we replicate our culture and our culture's values through teaching- though the curriculum, methods, the behaviours that are encouraged, and the behaviours that are punished. Within the learning environment, students are further provided with prescribed tools with which to complete their work. Maps, computers, textbooks, writing instruments, measuring instruments and the like, structure what it means to think, and how we are trained to categorize and label elements within our environment and cognitive structures (MacKeracher, 2004). The less thought we give to each of the elements within the situation of learning, the more likely we are to lose sight of what, exactly, is being taught, and the grander purposes of the learning environment. What are adults learning? What is the context and how is the classroom environment and the various relationships within it structured? These questions inform how the adult's cognitions are shaped and the changes that they make to their behaviour (or don't make) after they have left the learning environment. It has been argued (Knowles, 1970) that knowledge and skills related to adult roles and responsibilities are best learned within the environment in which they are to be used. Again we see that the classroom environment is very likely a poor replication of a real-life environment, outside of a social context. Classrooms devoid of problem-centred or hands-on experiences further remove students from the context of the material they are learning.

Learning Styles

In order to have teaching methods shaped to meet the learner where she is at, it is critical to understand what methods are best for the learner's individual needs. As stated above, cognitive styles and the way we understand cognitions differ, thus we must not conceptualize our understanding of learning as something which relies on punishment/reinforcement, or that treats the mind as a computer which recognizes and scaffolds only patterns and schemas. Due to factors including upbringing, values, affective, and psychological behaviours, learners interact with the world in myriad ways. These developmental changes affect both cognitive styles and learning styles. Cognitive styles refer to consistent individual differences in the ways individuals *organize* experiences into meanings, values, skills, and strategies, whereas learning styles are consistent individual differences in the way we *change*

meanings, values, skills and strategies (MacKeracher, 2004). Cognitive style is distinct from cognitive ability, which though globally important, is not a strong point of inquiry here. Cognitive ability refers to aspects of intelligence, the content of one's knowledge, and acts as a more singular dimension of capabilities. Cognitive style on the other hand refers to one's preferences for learning, relatively typical ways of thinking and behaving, and how one comes to organize information as it is received. A writer, for instance, may organize thoughts and words into categories, scaffolding on other previously read and written works, while a labourer may prefer to think about a conceptual model of ideas, one building upon the other in a complete sense. Yet that example is woefully incomplete, because as will be discussed, our cognitive and learning styles are uniquely individual, and though broadly applicable to academic disciplines and vocations, they do not explain nor capture the full picture of what it means to prefer to learn in one way versus another.

MacKeracher (2004) breaks cognitive styles down into two categories, analytic and holistic. The analytic cognitive style is reflected in individuals who perceive experiences as having discrete, distinguishable features- easily categorizing information and thinking in a linear, sequential way. The copy editor, the accountant, and the building inspector are heuristic labels for individual who can break the contents of a piece apart into the details, preferring to concentrate on the pieces that make up the whole rather than the whole itself. Those with a holistic cognitive style are more adept at perceiving connections between experiences, and store information in memory using broad, overlapping categories of ideas. Genres are blurred, and thinking strategies tend to be more global in scope. The community developer, real estate agent, and chief executive labels share the cultural heuristic of the connected thinker, rather than the details-oriented individual. As with all personality traits, most individuals fall somewhere in the middle between each of the cognitive styles, and use both in part to contribute to helping individuals "fashion order out of chaos" (Miller, 1991, p.33).

Learning styles differ from cognitive styles. Learning styles refer to how we *prefer* to learn and take in new information, oftentimes tied to our cognitive style, but not fundamentally reliant on it (Messick, 1976). Learning styles reflect the components of affect, cognition, and social learning as required and supported by the environment in which learning happens. The individual with an analytic cognitive style may prefer to learn in a particular way, but may have physiological (high-low activity, location), affective (boring-excited, risk, competition), or interpersonal barriers (connected-separate), preventing or encouraging a different way

of looking at the world (MacKeracher, 2004). On a personal reflective note, I know that my cognitive style would fit well in the profession of librarianship, but when we include the dimensions of affect, physiological demands, and interpersonal reactions I am fairly certain my personal learning style would not correspond. Many additional theories of learning styles have been proposed, variously proposing how individuals both prefer to, and actually do learn best. Various authors have proposed different classifications of learning, ranging from sensory modalities, such as how individuals want to take information in, ranging in Sternberg and Grigorenko's (1997) tripartite from enactive to kinaesthetic, iconic to visual, and symbolic to auditory. Others, including Kolb (1984) propose that learning styles range from abstract to concrete, and active to reflective, and each individual can be placed into one of four categories defined by the combination of each style. His four categories include divergers, assimilators, convergers and accommodators, each providing a rubric for different likes and dislikes as well as preferences within the learning environment. Including considerations such as preferred activity level, autonomous orientation, testing preferences, and reactions to group work, Kolb's learning styles reflect the dynamic nature of the situated environment, as well as the various contexts in which students are exposed to new knowledge and ideas.

Ultimately, what we gain from this literature is knowledge of the fact that no two learners come into any learning environment with the same characteristics, personalities, or preferred ways of confronting information. Teaching styles must reflect the unique characteristics of the learner, as well as the affective and social characteristics of the student's upbringing. Not that teachers can always necessarily be aware of all a student brings to the classroom, but it must be recognized that adult learners do have a history and a past which allows them to draw on parts of the learning environment most closely related to their own cognitive structures and learning style. To be an effective adult educator, teaching methods and assignments must have the capability to engage learners in multiple senses of the world, irrespective of what diverse characteristics each student brings in an inclusive and dynamic environment. In addition, learning styles must not be positively or negatively valenced. Too often we fall into traps assigning personality traits or personal characteristics value- it is better to be extraverted than introverted, etc. Though often difficult to place equal value something we are unfamiliar with as a trait we hold as our own, it must be remembered throughout the teaching and learning process that our own personal life experiences are not the same as those of others, and individuals approach information in uniquely personal

ways, no one way better than the rest. "Each cognitive/ learning style is adaptive in some situations and not adaptive in others" (MacKeracher 2004, p.82).

Experiential Learning

As mentioned earlier, Kolb (1984) proposed a four-part breakdown of learning styles based on his conceptions of how people prefer to learn, using two intersecting continuums of (1) concrete experience to abstract conceptualization, and (2) active experimentation to reflective observation. His model of learning styles reflects his framework of experiential learning, a strong proposal that experience is the source of both learning and development. Further work has identified a clear need for experiential teaching and learning methods to be embraced and used by the educational community. The First International Conference on Experiential Learning occurred in London in June 1987 (Boud, 1989). Since then ten additional conferences have been held (bi-annually) in which new ideas and practices have been brought forth into the public forum at this internationally-recognized event (ICEL, 2010). One of the foundational pieces of this conference, and ongoing work in this area is to define exactly what experiential learning is, and provide points of differentiation from more traditional teaching methods used in formal educational institutions.

Though the term experiential learning can mean many things, a common use for this term is to distinguish non-directed informal life experience from formal education (Fenwick, 2000). To be more specific within an educational context, experiential learning has come to include such diverse activities as class discussions, reading and analysis, reflection, and out-of-class experiences such as practica, service-learning, and co-op placement; while traditional classroom activities fall into what we in Western societies refer to as classroom learning- often lecture based, involving memorization and rote learning of facts and figures. Warner Weil and McGill (1989) proposed the realm of experiential learning is more fluid than a simple definition, and that it encompasses four distinct "villages" the first associated with those who examine how learning is assessed and credit given to prior life experiences, the second as the basis of bringing about change in structures, the third as a basis for consciousness-raising, and the fourth concerned with personal growth and development. These four villages of understanding capture the diversity in the field of study, and reflect the fact that individuals enter into and recognize experience for a variety of reasons, all related to affective,

social, institutional, and styles of learners. Though each of the villages holds merit for helping researchers categorize their own field of study, taken as a whole they reflect the need of society as a whole to recognize that learning is not confined to the teacher-student division in a classroom, but extends into the community and involves each of its citizens. Fenwick's (2000) evaluation of cognition in experiential learning is reflective of this overarching mission- her work assesses how constructions of meaning and theories of learning cross over the four villages and are implicated in the many ways in which adults learn and have their experiences valued. The four villages then stand as a useful tool to break down fields and areas of study- assessing the lens through which one views the study of learning, and a holistic perspective can take account for the broad scope and multiple influences that lead to successful information transfer and the development of wisdom.

As a context for learning, experiential methods make use of the self-directed nature of adult learners, as well as their experience in both academic and workplace locations. Within a pedagogical (/andragogical) frame, that is, a context where learning is explicitly meant to happen (school, workplace training, etc..) the presence of an educator is almost certain. Thus the educator acts in a role where new experiences and information are juxtaposed with the prior learning and experiences of students. In cases such as this, experiential teaching methods exist in an environment where learners are asked to do something. What the learner is asked to do in an experiential learning setting depends entirely on the context in which the asking takes place. As Boud (1989) discusses, even in Western educational setting, "the European use of the term focussed mainly on group-based human relations-type activities, whereas Americans frequently used it to describe work and field-based placement outside educational institutions" (p.39). What this comes back to then, is the meaning of the learning and the purpose of the learning activity, with special regard to the geographical context of understanding. Experiential learning as a teaching method needs to match the subject matter, and provide a logical and efficient way of communicating meaning purposefully to students. By asking student to engage in an experience within the placement, or in a group, the ends must justify the means. Yet that stated, Kolb (1984) argued that learning is best conceived as a process- and that learning does not happen in one fixed arena, it is life-long, continuous and fluid. How then do we integrate institutionalized learning (which doesn't appear to be going anywhere) with methods that best represent the needs and strengths of adult learners?

What we must return to now is the process of human learning as

related to our evolution and human development as a species. Learning at one point was not formal, it was all experiential. For those that still live in hunter-gatherer societies or who do not have access to formal education, all learning is through experience, through hands-on, practical and applied work with a visible result at the end. Though we philosophise about the meaning of experiential learning and its place in our society, in reality it is never apart from where we are. We are never separate from our experiences, as this exercise in writing has shown me. Though we may not always attend to or purposely grow knowledge from each and every one of our experiences, within our genetic code we absorb information, we make decisions, and change the course of our behaviour because of the influence events have had on us. What makes the most sense to me is providing a forum for educators to capitalize on this very ordinary, every-day learning in a meaningful way. If we wish to teach our students complicated topics such as languages, physics, psychology or social justice, we do them a grand disservice by denying them their innate potential and capability for learning through all of their sensory modalities. Because that is what learning is- it is a particular way of taking information in though our senses, and then doing something with it- be that writing, drawing, making, destroying, or creating something new; quite possibly just having a greater understanding about the world, and your (or your neighbour's) place in it. When we think about adults as learners, we recognize that not everything they know came from a textbook or a teacher. Much of what they know comes from real life experiences and interactions with the people around them in affective, cognitive, relational, and very contextual ways. All learning then is experiential, but not all learning has the same depth as methods framed within the label of 'experiential methods'.

CONCLUSION

Within the realm of post-secondary education, there are students at a wide range of levels. Some young, inexperienced, and seeking the university out as a place to mature. Others are mature, have had what they consider to be full lives, and wish to understand more about the world that they inhabit. Arguably, most are somewhere in between- knowledgeable, experienced, and mostly curious. The world of the adult learner is no less complicated than the world of learning in childhood, and it must be treated as such. Educators need to be simultaneously aware of the context in which learning is occurring as much as the material being presented. One of the most intuitive ways I can think to do this is by overtly

acknowledging context, space, and experience and then incorporating it into the learning environment. Whether through formal placements or assignments drawing on life experience and reflective practice, teaching at the university level needs to be richer and more dimensional., recognizing the interplay of context, emotion and experience, with the possibility of meaningful self-direction.

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ABOUT THE PROJECT

The writing of this book was the project of the intersession class of Adult Education and Lifelong Learning 9609 at the Western Faculty of Education in London, Ontario. Each writer takes responsibility for his or her own opinions, experiences and attributions. This book is meant as a compilation of meaningful ideas, many of which deserve further exploration. We hope that we have helped you think about adult learning from a new and/or unique perspective.