Abstract

Learner autonomy, the ability to take charge of one’s own learning, is one of the most valuable skills educators can encourage their students to develop. The ability to learn how to learn provides opportunities for students not only to take responsibility for their own learning, but also to determine its direction. What are the avenues one can take to promote the development of learner autonomy?

A large body of literature articulating the importance of learning as a structured, experiential process has emerged over the last three decades. The research of John Dewey and David Kolb regarding experiential education has contributed to the formal structure of a method of this kind of learning. Kurt Hahn, whose ideas about experiential learning stress reflection and also solitude, a state of being alone, offer a significant connection to psychologist Mihalyi Csikszentmihalyi’s flow theory, where one is “intensely involved in a meaningful activity [and is] able to remain focused for the length of time needed to achieve a deeply valued goal (Csikszentmihalyi, 2008, p. 6). This connection is seen most clearly in what Csikszentmihalyi suggests are the conditions for flow, one of which is concentration. The ability to concentrate is certainly a condition for higher learning processes and is therefore an important condition to take into consideration with regard to education and learning. Conditions for concentration however, seem to be rooted in solitude (Behuniak, 2006; Csikszentmihalyi, 2008). Although solitude is something that is needed to concentrate and to develop our complex selves, (Csikszentmihalyi, 2008) current cultural trends expose an avoidance of solitude. Importantly, it seems that neither schools nor the culture of schooling value the importance of, nor the conditions needed to foster
positive experiences of being alone, of fostering experiences in solitude. Instead, current school climate seems to dissuade us from experiencing learning at a pace that will help develop learner autonomy, indeed the ideals of education (Gatto, 2003).

This qualitative study will explore how six participants who engage in a variety of activities during which they believe themselves to be engaged in a deep level of concentration express how concepts related to flow as a learning process affects them as learners. Additionally, the study will consider the value of experiential learning as central to the participants’ overall understanding of and success in their chosen activities. The purpose of this study is to illustrate the value of and conditions for learning that takes place during flow-based activities; the process of learning that takes place through the practice of activities at which healthy competence and engagement at a deep level of concentration is required. It will in turn investigate the implications these activities have in relation to the development of learner autonomy.
Acknowledgments

I would like to thank the following individuals for their time, patience and friendship.

To the students I have tutored, coached and taught over the years both in Canada and abroad: Thank you for your questions, your challenges, your patience, and thank you for your trust in me.

To my thesis supervisor and friend, Dr. Magda Lewis: Thank you for your support, kindness and friendship. Thank you for your passion for ideas and for your open mind. I am grateful.

To my thesis committee member and friend, Dr. Zabe MacEachran: Thank you for the talks at the Goat, for your support, and for your kindness. Thank you for sharing your love of provincial parks and canoe routes with me.

To the cross-country coaches, music teachers and public school teachers who challenged and supported me: I wish you knew how much I truly value what I have learned from you. Thank you so much for sharing your passion with young people.

To my parents: Thank you for your support and love. I am so lucky to have you.

To my friends: Thank you for your friendship and love.
TABLE OF CONTENTS

Abstract..............................................................................................................ii
Acknowledgements...........................................................................................iv
Table of Contents.............................................................................................v
List of Figures..................................................................................................vii
Chapter 1: Introduction...................................................................................1
  Purpose of Study............................................................................................6
  Rationale........................................................................................................7
  Map...............................................................................................................9
Chapter 2: Literature Review.........................................................................11
  Experiential Learning....................................................................................11
  Flow Theory................................................................................................17
  Conditions for Flow......................................................................................19
  Metacognition...............................................................................................20
  Concentration and the Self, Solitude and Schooling.................................24
Chapter 3: Methodological Overview............................................................31
  Phenomenology............................................................................................32
  Interviews.....................................................................................................35
  Introducing Participants...............................................................................37
Chapter 4: Analysis........................................................................................40
  Introduction
Theme I: Physical and Reflective Aspects of Experiential Learning: *It had to be manifested physically in order for me to really notice the difference*: Participants explain the importance of their chosen experiential physical activity to their learning process

Introduction………………………………………………………………41
Responses………………………………………………………………….42
Reflections on Theme I………………………………………………….55

Theme II: Focus and Concentration: In Flow: *When I’m in it, when I’m doing everything perfectly, it’s like breathing. I’m not aware of it*: Participants describe their experience as a meditative state

Introduction………………………………………………………………56
Flow: Participants in “the zone”………………………………………..57
Metacognition: “Knowing about Knowing”………………………….64
Reflections on Theme II……………………………………………….71

Theme III: How to be Alone: *When you work alone, you are only left with what you’re capable of doing*: Participants explain the importance of solitude

Introduction………………………………………………………………71
Results……………………………………………………………………76
Reflections on Theme III………………………………………………83
Conclusion………………………………………………………………84

Chapter 5: Conclusion…………………………………………………………85

Transfer of Learning………………………………………………………..89
Learner Autonomy…………………………………………………………94
List of Figures

Figure 1: Kolb’s Experiential Learning Model (Kirk, 2011)…………………….14

Figure 2: Csikszentmihalyi’s Flow Theory (Juul, 2009)…………………………18

Figure 3: Sarah Pennington’s Phone You Can’t Pick Up (Pennington, 2002)…..75
Chapter One: Introduction

Some of my most vivid memories from my early adolescence are of long distance running. I can still recall the six kilometer route through my neighbourhood and park that I ran nearly every day for years. I can recall the sense of focus, concentration and calmness that eventually overtook my thinking process at around the twenty-minute mark that would last well into the rest of the run; what I have come to understand as “flow” or what athletes call “the zone.” I can remember, nearing the end of any race, feeling as though I were at the same time both well past exhaustion, dry mouthed and heaving, but also as if I were floating towards finishing. Most importantly, however, I remember the development and fine-tuning of a focus and concentration, of a trust and comfort in being alone, and of a confidence in my abilities.

I took up running when I was eleven years old, running around the local high school track. My first athletic team was the cross country team, in grade six. Our coach, Miss K. would have us meet at 6 a.m. and run. We ran in rain, we ran in the cold, and we ran in silence. I don’t remember Miss K. ever demanding silence of us, but I do vividly remember running alongside her; she ran with a concentrated stride and on the times when we ran side-by-side, I remember feeling as though we were together but also apart. She recognized something in running that I was on the path of discovering also; that this activity was a time to concentrate on myself. It was a learning experience unlike any I had encountered inside a classroom. I eventually began to take on greater

1 This name and all other names in this thesis are pseudonyms
distances, and competed throughout high school and into my undergraduate years.

I continue to run today, and it has helped me maintain the most exquisite and intimate relationship with and understanding about myself. I have learned to take comfort with being alone, in experiencing solitude; I have explored parts of myself I didn’t know were there, treaded through all kinds of weaknesses and anxieties, and I have overcome more than a few challenges, both physical and psychological. Understanding how I learn and process information has helped me not only in my running life, but my life outside of running, too. This research study is an exploration into how physical, experiential activities involving solitude, like distance running, can contribute to an intimate and acute understanding of both ourselves and most importantly, to the development of learner autonomy.

Running is a solitary activity. It often was for me. I was never someone who was interested in running with others. The benefits were just unavailable to me that way. I really began to wonder about why I valued such time alone, what it provided for me both personally and as a student. I especially began to think about this one day while walking the hallway of a public school at which I was working. One of the students, known in the school for having temper control issues, was being sent out of the class yet again. The teacher, obviously frustrated, sent him into the hall, exclaiming loudly that he was to “sit by [him]self.” I watched as the student, fourth grade, stood there, alone, and then proceeded to have a fit. It was at that moment that I wondered if that was exactly what that child needed - to be alone. But more to the point, I wondered if it were possible that our ideas of isolation and solitude, the state of being alone, were being misapplied in schools as a form of punishment?
The more I wondered this, the more I began to see the phenomenon more frequently. My work as a literacy tutor in the public school system, as well as a writing tutor and as a TA for university students introduced me to individuals who were struggling with their academic work because they could not focus, who expressed their difficulties in concentrating, who said they didn’t want to try because it was “too hard,” who claimed they could not manage to take the time to be alone in order to get writing projects finished. I really began to question our present culture of connectivity and wondered if we were overlooking an extremely important and crucial aspect of human awareness – the ability to be alone with our own thoughts. What is the value of learning through experience while on one’s own? What did other runners think about solitude? What about individuals who spent countless hours alone working at or practicing something they loved? How would they describe the value in this time, most especially with regards to learning?

What I gained from running was a keen awareness of my own thought processes and how to utilize them, what researchers in education would term learner autonomy (Holec, 1996) or self directed learning (Pieschl et al., 2008). Learning how to learn is not a skill, but a family of learning practices that heighten one’s capacity to learn. The ability to both uncover and manage the methods used to process pace, fatigue, concentration, anxiety and distance, to name only a few, was and continues to be empowering and motivating. Furthermore, I found I was able to access this understanding regarding situations outside of running. The patience needed for designing successful lesson plans, the focus that is necessary for making sense of a complicated problem, or the extended hours of concentration required in writing a
research paper are tools that I have sharpened as a result of distance running. Indeed, considering the speed at which social and cultural landscapes are currently transforming, the ability to make meaning of rather than simply access information is an imperative when considering contemporary educational contexts. How can we become autonomous learners?

Experiential learning, the process of making meaning from direct experience, has its roots in Dewey, most significantly, and before him in Aristotle. This method of learning is most easily contrasted with abstract learning. While modern theories in education suggest that learning through experience is a valuable learning process (Dewey, Kolb, Vygotsky), psychologist Mihalyi Csikszentmihayi’s flow theory extends these theories through the shared concepts of solitude and reflection and illustrates how flow can be viewed as an experience which explores processes of learning and eventually leads to an awareness of learner autonomy. Csikszentmihalyi defines this experience of consciousness as “flow.” When people are in this state of flow they are “intensely involved in a meaningful activity and are able to remain focused for the length of time needed to achieve a deeply valued goal” (Csikszentmihalyi, 2008, p. 6).

While a considerable amount of research in flow theory has gravitated towards anthropology, psychology and sociology (Csikszentmihalyi, 2008) there is potential for this theory to be studied with regards to education and learning. People who experience flow - dancers, writers, musicians, for example - describe it as a state of extreme awareness (Csikszentmihalyi, 1996), which implies value as a learning tool. Connections between flow theory and experiential learning processes can be uncovered, then, if the processes that occur in flow states can be considered experiential. This is
seen most clearly in his conditions for flow, one of which is concentration. The ability to concentrate is certainly a condition for higher learning processes and is therefore an important condition to take into consideration with regard to education and learning.

Conditions for concentration however, seem to be rooted in solitude (Behuniak, 2006; Csikszentmihalyi, 2008), a state of being alone, which, as stated above, is a shared concept with experiential learning. Although solitude, time and space alone, is something that is needed to concentrate and to develop our complex selves, (Csikszentmihalyi, 2008) current cultural trends expose an avoidance of solitude.

Importantly, it seems that neither schools nor the culture of schooling seem to value the importance of, nor the conditions needed to foster solitude. Instead, current school climate seems to dissuade us from experiencing learning at a pace that will help develop learner autonomy, indeed the ideals of education (Gatto, 2003).

This qualitative study will explore how six participants who engage in a variety of activities during which they believe themselves to be engaged in a deep level of concentration express how concepts related to flow as a learning process affects them as learners. Additionally, the study will consider the value of experiential learning as central to the participants’ overall understanding of and success in their chosen activities. The purpose of this study is to illustrate the value of and conditions for learning that takes place during flow-based activities; the process of learning that takes place through the practice of activities at which healthy competence and engagement at a deep level of concentration is required. It will in turn investigate the implications these activities have in relation to the development of learner autonomy.

The concepts of experiential learning, flow, and solitude are explored through
three major themes: Theme I: Physical and Reflective Aspects of Experiential Learning; Theme II: Focus and Concentration: In Flow (flow theory); and Theme III: How To Be Alone (solitude). These three themes are connected in order to illustrate the ways in which learners may achieve learner autonomy. Specifically, the three themes contribute to learner autonomy as they illustrate a shared value in solitude; where both physical experiential activities and flow-based activities value the cognitive processes that accompany a physical activity, they also find common ground in their value of solitude as it relates to learning processes. Experiential learning expresses this through reflection, and flow theory through concentration, a condition of flow.

**Purpose of study**

The purpose of this study is to explore how focused, task-based learning activities that include solitude, a condition for flow, contribute to learner autonomy. The study will be guided by the following questions:

1. What is the value of the kind of learning that takes place during focused, task-based activities?
2. How does solitude contribute to the learning process during flow-based activities?
3. Why do some people seek flow-based learning experiences and what/how do they gain from them?
4. How might identification with this method of learning help improve the educational experiences of individuals?
Rationale

Despite the overwhelming evidence that continues to highlight the value of experiential learning and learning on one’s own, school culture seems to continually run a course where busy work, homework and distractions continually run in opposition to the value of time spent alone (Gatto, 2003), and therefore the development of learner autonomy.

Learner autonomy, the ability to take charge of one’s own learning, is one of the most valuable skills educators can encourage their students to develop. The ability to learn how to learn provides opportunities for students not only to take responsibility for their own learning, but also to determine its direction. Experiential activities in flow illustrate learners’ abilities to process and manage their understanding of a given experience, a sign of learner autonomy.

Thinkers, philosophers and psychologists, from Aristotle, to Dewey, to Piaget, have expressed the value of learning from experience. Indeed, learning from experience, making meaning from direct experience, allows the learner to make direct connections to an experience and internalize that experience to his or her own individual needs and wants, thereby addressing educational values such as self-initiation, self-reflection, and self-confidence. Recent studies in the literature show ability for experiential learners to create avenues for other paths of learning. Some studies have shown that individuals, when given experiential learning opportunities, exhibit tendencies to respond more flexibly in adapting to new conceptual learning experiences (Mainemelis, Boyatzis & Kolb, 2002). In addition to experiential learning, there is growing evidence that learning in solitude is not only valuable, but that metacognitive
processes are improved when one engages in the process of thinking critically and reflectively (Runco, in Kaufman & Sternberg, 2010, p. 416). Indeed the ability to think well requires solitude, the ability to remove oneself (Behuniak, 2006, p. 44). Leon Neyfak’s article, *The Power of Lonely*, cites a recent Harvard study that indicates that “people form more lasting memories if they believe they are experiencing something alone” (Neyfakh, 2011, p. 1), while another has shown that “a certain amount of solitude has been shown to help teenagers improve their moods and earn good grades in school” (Neyfakh, 2011, p. 3). Additional findings report that learning in groups can actually hinder creativity (Bronson and Merryman, 2010). Curiously, at a time when constant connectivity with each other has not only become the norm, but is being heralded as a global survival mechanism, it seems as though awareness of the importance of learning on one’s own is increasing (Behuniak, 2006; Caranfa, 2003; Knapp and Smith, 2005; Deresewicz, 2009; Neyfakh, 2011; Rosen, 2005).

However, current school climate seems to run counter to these findings. School boards and classrooms continue to support and invest in the latest technological trends and advances while apparently giving less thought to the learning conditions in

---

2 The study, conducted by graduate student Natalie Burum, placed two individuals in a room and had them sit back to back while looking at two different computer screens. Some pairs were told that they were working on the same tasks, while others were told they were working on independent tasks. The computer screens displayed a series of pictures of common objects. Burum found that the pairs who were told that they were working on different tasks, such as being asked to identify sounds rather than pictures, did a better job of remembering the objects. In other words, “they formed more solid memories when they believed they were the only ones doing the task” (Neyfakh, 2011, p. 3).
classrooms. The culture of multitasking, of connectivity leaves students absorbed at all times with other’s thoughts through constant and consistent distractions.

With the recent assurance from Ontario Premier Dalton McGuinty that cell phones be allowed in classrooms, this question of the context for classroom learning is pertinent. A recent poll at an Ontario school shows that a majority of students have claimed that cell phones should not be allowed, as they are distracting (Lorrigio, 2011). At the same time, the Toronto District School Board is looking into the possibility of installing large television screens inside dozens of city schools, with 30% of the time reserved for advertising (“TVs proposed,” 2011). While there clearly remains a value in learning alone, learning how to focus, and learning how to concentrate, is it possible that we are in danger of losing this ability? As the public educational system continues towards a standards-based curriculum, maintaining that all students study the same thing at the same time, there will be little room for practices that support students who learn at a different pace, and that support the kind of learning that requires time for personal pause and reflection.

Map

This study will begin with a literature review outlining some of the major contributors to the field of experiential learning. It will explore three major theorists, John Dewey, David Kolb and Kurt Hahn, whose contributions to the field of experiential learning include definitive processes that aid in understanding how

---

3 According to reporter Paola Lorrigio, a study organized by the Ontario Student Trustees’ Association found that nearly three-quarters of the 2,600 students surveyed opposed the use of cell phones as an educational tool, claiming that they find them distracting.
individuals may employ experiential methods of learning. The following section in the literature review will outline the concepts of flow theory and how it relates to experiential learning as well as offer an elaboration of Csikszentmihalyi’s conditions for flow. The third section of the literature will examine metacognition, thinking about thinking, and its connections with flow theory and how experiential education can aid in an understanding of how learners can develop learner autonomy. The final section of the literature review will look at the literature that contributes to the study of solitude and concentration, and how solitude enhances learning practices.

A methodology chapter will follow the literature review. This chapter will outline the steps taken to generate data for analysis regarding the interview process, the theory of phenomenology, which informs the methodology, as well as provide an introduction to participants.

Following the methodology section will be the data presentation and its analysis. This chapter is divided into three themes: Theme I is an exploration of how the participants describe the importance of a physical experiential activity to their overall learning process. Theme II examines how participants describe the state of focus and concentration in which they are engaged during each activity, and how participants manage the conditions for this state to occur. Theme III will discuss how participants value solitude as a tool for their learning process.

A conclusion chapter, which will summarize the major themes that were explored, will include a section that will navigate the shared category among these themes – the development of learner autonomy. A limitations section and finally, an overview of implications for further research will follow at the end.
Chapter Two: Literature Review

The following chapter outlines the major theorists and current studies relating to the research purpose. It begins with an examination of experiential learning, specifically through the works of Dewey, Kolb and Hahn. It continues to discuss the connections between experiential learning and Csikszentmihalyi’s concept of flow. In addition, a review of Flavell’s research on metacognition follows, and concludes with some of the current studies regarding the importance of solitude in learning.

Experiential Learning

“Tell me and I will forget, show me and I might remember, involve me and I will understand”– Confucius

While the importance of learning from experience has been examined for centuries, a particular body of literature articulating the importance of learning as a structured, experiential process has emerged over the last three decades. Defining the processes that contribute to experiential learning has become a focus for many researchers. Although a large amount of this research tends to focus on outdoor education, many educational theorists, from Plato to Krishnamurti, to Waldorf and Montessori argue for the necessity of experiential learning to take place with all activities, including mathematics instruction and storytelling. This section will elaborate on the work of three major theorists, John Dewey and David Kolb, whose research in experiential education has contributed to the formal structure of a method of this kind of learning, and Kurt Hahn, whose ideas about experiential learning stress reflection but also solitude.
An early experiential education theorist, John Dewey’s work (1938), provides the foundation of a definition for many experiential theorists today. His work argues for a constructivist approach to learning - the importance for learners to make connections between previous experience and new knowledge, as well as the necessity for reflection after the new knowledge has been acquired. Dewey maintains that, through observing their surroundings, learners are able to gather information, obtain knowledge by reflecting on past experiences, and offer judgment based on the combination of knowledge and observation because “every experience is a moving force. Its value can be judged only on the ground of what it moves toward and into” (Dewey, 1938, Ch. 3, para 12). Dewey’s work in experiential learning investigates how and why human experience serves as the major contributor for learning, and how, through understanding an activity or experience, we can promote and guide human learning (Glassman, 2004). He proposes that education be based on a theory of experience and that we must understand the nature of how humans have the experiences they do in order to design effective education curricula. This approach is based on two central tenets of Dewey's theory of experience: continuity and interaction.

Continuity refers to the concept that humans are affected by experience and that all past experiences inform how we interact with and process new experiences. Continuity refers to the idea that humans survive by learning and building upon each lesson, thereby learning from experience. The accumulated insights gained from each experience determine how we interact with and learn from future experiences. Thus, every experience in some way influences all potential future experiences for an individual.
The term, interaction, extends the notion of continuity and explains how one’s experience is composed of one’s interactions of past experiences with a present situation. According to Dewey, an individual’s experience is understood as a function of past experiences. Any situation, therefore, can be experienced in a multitude of ways because of unique individual differences. Therefore, a learner’s experiences and reactions to knowledge are as important as the knowledge itself.

As outlined in Cassidy (2004), the work of David Kolb (1984) extends the research of Dewey and others by theorizing that learning takes place through a four-stage, continuous cycle, also known as the Experiential Learning Model (Figure 1). The four elements that compose the cycle are: a) concrete experience, b) observation of and reflection on that experience, c) formation of abstract concepts based on that reflection, and d) testing new concepts or active experimentation. According to Cassidy, Kolb’s interest is in how the interaction among these four elements stimulates learning and defines the process as holistic. While an ideal learning situation involves all elements of the cycle, Kolb maintains that most learners gravitate towards one of the four elements of learning in particular.
Kolb maintains that “learning is the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping experience and transforming it” (1984, p. 41). Kolb suggests that the learning process often begins with a person carrying out a particular action and then observing the effects of that action. Thus, if the same action were taken a second time in a similar circumstance, the learner is now able to anticipate the possible effects of the action. According to Kolb, the learner learns through this process of taking new information and testing it against his or her accustomed real-life experiences. By so doing, the
learner transforms both the information and the experience into an understanding of some new or familiar phenomenon. He proposes that experiential learning consists of six main characteristics:

- Learning is best conceived as a process, not in terms of outcomes.
- Learning is a continuous process grounded in experience.
- Learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world (learning is by its very nature full of tension).
- Learning is a holistic process of adaptation to the world.
- Learning involves transactions between the person and the environment.
- Learning is the process of creating knowledge that is the result of the transaction between social knowledge and personal knowledge (Kolb, 1984).

In addition to these six characteristics, Kolb's learning theory sets out four distinct learning styles which are based on the four-stage learning cycle: diverging, a combination of the concrete experience method and reflective observation method; assimilating, a combination of the abstract conceptualization method and reflective observation method; converging, a combination of the abstract conceptualization method and active experimentation method; and accommodating, a combination of the active experimentation method and the concrete experience method. In this respect, Kolb's model differs from Dewey’s in that it offers both a way to understand individual learning styles, which he named the Learning Styles Inventory (LSI), and also an explanation of a cycle of experiential learning that applies to all learners. Kolb called this learning model Experiential Learning, as he believes that experience is the source of learning and development (1984).
While both Dewey and Kolb’s learning models include reflection, perhaps the most significant work in experiential learning that emphasizes this aspect of experiential learning is attributed to Kurt Hahn. Where a number of educational theorists based the foundation of their work on Hahn’s work, Thomas (1990) recognizes that Hahn’s work emphasizes the importance of reflection in experiential education, and that this stage includes solitude, in order for students to explore their own thoughts, make their own connections and create their own ideas (p. 8). Hahn is perhaps best known for the creation of Outward Bound, which currently operates as an international organization that teaches community service, wilderness survival and leadership skills in outdoor settings. The aim is to provide sufficient wilderness skills, which includes the experience of the traditional solo, where individual participants are brought to a location that is separate from the group and are encouraged to reflect on their time alone. Hahn felt that solitude was a necessary component to wilderness expedition learning because:

> When in solitude one naturally looks back, one also thinks and dreams ahead and one finds it difficult to conveniently forget what one should remember…We need [solitude] to counteract the confused restlessness of modern life and the insatiable appetite for company it engenders. (Hahn, 1965, p. 5)

Additionally, Thomas points out how Hahn’s work stresses the importance of self-discovery through challenge, particularly through fitness. This is seen most significantly in Hahn’s description of *The Social Declines*, which outlines the main inhibitors to youth engagement and wellbeing. In particular, the decline of fitness, memory and imagination and self-discipline are outlined. Stetson (2010) explores how Hahn’s antidotes to these problems include fitness training - discipline and determination of the mind through the body in order for students to discover that they
can do “more than they think they can” (para 9). Hahn’s interest both in solitude and activities that promote self-discovery reflect important values in experiential learning and the processes of learning that are uncovered as a result.

The range of experiential education theory is far-reaching, but connections to current thinking about psychological processes of learning, especially with regard to our bodies illustrate strong connections between physical experience, solitude, and implications for learner development. Where experiential learning requires reflection as well as solitude (Dewey, Kolb and Hahn), Csikszentmihalyi’s flow theory shares this same requirement of reflection and solitude for concentration to occur, a condition of flow. Essentially, solitude and reflection is an aspect of learning that is shared by both experiential learning and flow theory.

**Flow Theory**

What are the conditions required to be so fully immersed in an activity that one’s senses are engaged so completely that any distractions and time seem to disappear? Buddhist yogis call this state Samyama. Drummers, while mediating between the bass and the drum line call it being “in the pocket.” Athletes call it being “in the zone” while rappers call it “flowing.” Psychologist Mihaly Csikszentmihalyi maintains that quality of experience is the most important aspect of human life. He defines quality of experience as “focusing attention to the interplay of data in the consciousness” (Csikszentmihalyi, 2008, p. 15). He contended that relating information from outside sources to our consciousness must be an “ordered process” and that “the relevant source of energy that keeps consciousness in an ordered state is information”
According to Csikszentmihalyi, consciousness becomes disorganized when the information from the activity is either too complex or too simple (Figure 2).

![Csikszentmihalyi’s Flow Theory](http://www.jesperjuul.net/text/fearoffailing/)

This means that attention is unfocused or fragmented and when this occurs, it cannot be used to process experience effectively. When what Csiksentmihalyi calls an ordered state of consciousness or optimal experience occurs, there is a balance between the challenge of the activity and the skills of the learner. When this balance is achieved, a learner’s focus moves from a limited focus toward total immersion in an activity. Csiksentmihalyi calls this state “flow state” or “flow.”
Csikszentmihalyi uses the term “flow” to describe the condition of complete and effortless focus, characterized by total immersion in the task at hand. He developed the term “flow” as a result of numerous interviews with participants who were asked to describe what they experienced while participating in activities that they found challenging and enjoyable. Many participants likened their experiences to that of the flow of a river, feeling part of a natural order with themselves and their surroundings (Csikszentmihalyi, 1996, p. 74). Interviews with participants in his studies illustrate that participants express a keen awareness of transformation, a uniqueness of themselves. Every activity had one thing in common:

It provided a sense of discovery, a creative feeling of higher levels of performance, and led to previously undreamed-of states of consciousness. In short, it transformed the self by making it more complex. In this growth of the self lies the key to flow activities. (p. 74)

**Conditions for Flow**

Although Csikszentmihalyi contends that flow may occur spontaneously, he makes the point that it is more likely to occur during structured activities or from an individual’s ability to make flow occur. He lists the following conditions for flow:

a) A challenging activity that requires skills

b) The ability to concentrate

c) Involvement in a task that has clear goals and provides immediate feedback

d) Effortless involvement that removes from awareness frustrations, etc

e) The ability to exercise control over actions

f) A loss of preoccupation with the self that leads, ironically, to a stronger sense of self
g) An alteration in the sense of the duration of time

It is important to note that one of the conditions for flow listed is the ability to concentrate. Conditions for concentration, however, seem to be rooted in solitude, which will be discussed following the section on metacognition. A link then can be made between flow theory and experiential learning where both share the aspect of solitude and reflection as a necessary component to experiencing flow and participating in experiential learning activities. Both experiential learning and flow also share aspects of metacognition.

**Metacognition**

Conditions for flow have direct associations with metacognition, which can help explain why those who experience a flow state can describe their own processes of learning. The term metacognition, “knowing about knowing” (Flavell, 1979), is defined by Flavell as:

One’s knowledge concerning one’s own cognitive processes or anything related to them, e.g., the learning-relevant properties of information or data. For example, I am engaging in metacognition if I notice that I am having more trouble learning A than B; if it strikes me that I should double check C before accepting it as fact. (1976, p. 232)

While studies in consciousness and its relation to learning had certainly been explored previously by thinkers such as William James in his *Principles of Psychology* and Henri Bergson’s intuitive method of “thinking in duration” in *The Creative Mind* (Bergson, 1992), it was Flavell whose use of the term re-introduced the concept to learning psychology after its nearly 50 year absence (Kolb et al., 2009). Indeed, in his Meta-cognitive aspects of Experiential Learning, Kolb insists, “Flavell’s introduction of the
concept of metacognition reintroduced consciousness to the study of human learning and stimulated a vigorous stream of research” (Kolb et al., 2009 p. 302).

Contemporary research in experiential education shows strong connections with metacognition. Where a fundamental conceptual understanding of metacognitive knowledge is a person’s belief and understanding of their own ability to learn, in experiential learning theory “people who see themselves as learners are those who trust their direct personal experiences and their ability to learn from them” (Kolb et al., 2009 p. 304). Not unlike Kolb’s reflective stage, where learners consider their learning experience following their initial task as explored in the previous chapter, metacognitive knowledge is central to the experiential learning process.

Evidence of metacognition among those participating in a variety of tasks has shown heightened levels of learning and comprehension across a spectrum of abilities, age groups and disciplines. Research in literacy instruction has found that the use of metacognitive strategies among readers aids in overall comprehension significantly more than those who do not engage in metacognition. Additionally, studies in physical education (Kermarrec et al., 2005), and higher education (Martens et al., 2010) show that evidence of metacognition has been found among higher achieving students and more successful learners. Because metacognition implies an awareness of how one can learn how to learn most effectively, it is not surprising that the use of metacognitive strategies often result in successful and engaging learning processes and experiences.

Metacognition refers to a higher order of thinking, literally, the “thinking about thinking” that is commonly engaged in learning. Metacognition is usually discussed in activities that require an element of task planning, self-monitoring, and self-evaluation
(Flavell), which are shared components of experiential learning theories (Kolb’s model of learning methods) and flow theory (which requires planning and feedback). Thus, discussions regarding experiential learning and flow theory often include discussions regarding metacognition (Yeganeh, 2006; Flavell, 1987). Studies in flow research indicate that deep absorption in activities promotes optimal learning experiences (Shernoff, Csikszentmihalyi, Schneider and Shernoff, 2003) and these activities can range from classroom activities like note taking and listening to a lecture (Shernoff et al., 2003) to a range of athletic activities (Singer, 2002) including meditation (Larkey, Jahnke, Etnier and Gonzalez, 2009). Additionally, studies in metacognition and its relation to experiential learning show levels of deep engagement and increased attention and focus (Yeganeh, 2006).

Although the term metacognition has been used interchangeably in the literature of education psychology with self regulated learning (Vygotsky) or executive control (Alexander, 2008), with regard to modern education psychology, it is most often associated with John Flavell (1979). According to Flavell (1979) metacognition consists of both metacognitive knowledge and metacognitive experiences or regulation. Metacognitive knowledge refers to learned knowledge about cognitive processes; it refers to the method whereby humans learn and process information as well as individual knowledge about that particular individual’s own learning operations. For example, a long distance runner may be aware that although only half way through her route, as she begins to feel exhausted, she knows that if she continues at the same pace, the feeling will pass. Previous experience lets her know this. For this reason, metacognition can be understood not only as an aspect of flow theory, but also of
experiential learning, where learners can improve metacognitive abilities [through experiential learning] (Kolb and Kolb, 2008, p. 322).

Metacognition also involves regulation, which shares similarities with Kolb’s reflection stage as well as Csikszentmihalyi’s conditions for flow, where the involvement in a task requires goals and feedback. The processes of regulation help to ensure that a cognitive goal has been met and helps to ensure that outcomes for a desired activity are met. For example, if a runner were to notice at the end of her run that she had been distracted and could not concentrate, she would consider how she could manipulate conditions for the next time so that the desired outcome of decreased anxiety was achieved at the end of the run. She might ask herself what mental processes were (or were not) occurring for her to be able to focus more keenly. By asking such questions, not only is a more holistic and therefore experiential process of comprehension met, but a greater understanding of one’s own though processes is heightened.

Metacognition may also share a relationship with physical activity. A number of studies are indicating the positive effects that exercise has on the brain, noting increased levels of BDNF (brain-derived neurotrophic factor), a protein that helps encourage and support neurons in the central nervous system (Ratey, 2008, p. 36). These studies also point to direct links between aerobic exercise and the growth of new neurons and branches of neurons, illustrating a direct biological connection between movement and cognitive function (Ratey, 2008, p. 43).

Finally, metacognition and experiential learning may be linked to the concept of mindfulness, where learners are aware of their learning style and are able to utilize and
transform it if necessary, depending on the learning experience they are engaging in.

Where experiential learning involves a tension among four learning elements, as shown above with Kolb’s ELM (Mainemslis, et al., 2002), and where metacognition defines a comprehension of the process, mindfulness is both a state and a process. This process results in a feeling of heightened engagement, which contributes to the experience as well. Mindfulness, a stress on the importance of the understanding of the process of learning rather than the outcome, may be a construct that helps us uniquely understand the process of experiential learning. Its emphasis on moment-to-moment awareness of experience reveals an opportunity in learning about learner autonomy.

Concentration and the Self, Solitude and Schooling

It is worth noting that one of the conditions for flow that Csikszentmihalyi lists is the ability to concentrate. But what are the conditions for concentration? Csikszentmihalyi argues, “unless one learns to tolerate and even enjoy being alone, it is very difficult to accomplish any task that requires undivided concentration” (Csikszentmihalyi, 2008, p. 165). Like Hahn, and indeed in the tradition of many cultures that for centuries have used concentration and contemplation as a method of training the mind to focus, Csikszentmihalyi argues for the importance of solitude - the state of being alone without being lonely - in relation to learning, illustrating a direct connection with experiential learning theories. “Alone” and “solitude” then, are similar, where alone is a condition of solitude. Both historical and contemporary thinkers including Csikszentmihalyi maintain that solitude is a necessary condition in order to develop contemplation and focus and ultimately, capability. Current cultural trends,
however, including schooled cultures, not only find difficulty in cultivating an acceptance of solitude, a state of being alone, but seem to actively avoid it.

The importance of solitude in relation to complex and valued thought processes is not a new one. According to Thomas (2006), the Hindu and Buddhist traditions share an overwhelming body of literature regarding the practice of meditation and contemplation. Both traditions share the idea that learning is a process that must include the art of meticulously focusing and developing one’s contemplative mind. Indeed, there are numerous artists, thinkers and contemporary educators who advocate solitude as a necessary condition for learning and self-discovery. Gaugin painted his most well-known piece, *Where Do We Come From? What Are We? Where Are We Going?* while intentionally secluding himself from the urban life of Paris in the Tahitian islands. “Gaugin gave us a lesson in solitude by which the self connects to itself and to other voices of silence across time and space” (Caranfa, 2003, p. 312). Similarly, western feminist writers have long advocated for the importance of a space for solitude with relation to thought. From Virginia Woolf’s *A Room of One’s Own* (1929), to May Sarton’s *Journal of a Solitude* (1973), there has long been a call for the importance of solitude as a cultural value to develop the self and explore complex thoughts and learning processes. Additionally, Montessori curriculum includes a “silent space” as well as the “silent game” (Behuniak, 2006, p. 48) in order to accommodate learners who thrive in environments where silence and solitude are valued. Furthermore, Bronson and Merryman (2010) report that recent studies in creativity show that ideas are richer when people brainstorm alone rather than in groups; that “social loafing” can occur as a result of some members of the group feeling less accountable for results as opposed to
when they are thinking alone (para 3). Space and time for solitude is obviously a valuable concept for allowing opportunities for learning as well as for the growth of the complex self.

The ability to think and learn in solitude certainly contributes to the formation of complex thoughts and ideas, as it also contributes to a clearer formation of our selves and our learning processes, and thus, learner autonomy. As mentioned earlier, one of the conditions listed for flow to occur as detailed by Csikszentmihalyi is concentration, which we have seen may be dependent on environments and a positive inclination towards solitude. Csikszentmihalyi (2008) argues that activities in flow promote the development of the complex self because:

Overcoming a challenge inevitably leaves a person feeling more capable, more skilled. Flow helps to integrate the self because in that state of deep concentration consciousness is unusually well ordered. Thoughts, intentions, feelings, and all the senses are focused on the same goal . . . and when the flow episode is over, one feels more ‘together’ than before, not only internally but with respect to other people and to the world in general. (p. 41)

Concentration and solitude then, are crucial in order to develop deep understandings of our learning processes and our selves. If the ideal of education is to learn how to learn, the development of a keen awareness of our selves and our learning processes is crucial to education.

It seems however as though the culture of schooling does not value solitude, the quality of being alone. Students spend time alone when they have misbehaved. In other words, spending time alone is rarely offered as a choice, but rather a consequence for unacceptable behaviour. This narrow conception of the value of time spent alone poses serious implications for education. This notion though stems from a wider cultural
attitude towards experiencing time alone. It would seem that the idea of being alone is terrifying; and that we are determined to maintain connectivity, as “We no longer believe in the solitary mind . . . The current psychological model – and this should come as no surprise – is that of the networked or social mind” (Deresiewicz, 2009, p. B7).

Not only are we fixated on products that keep us from experiencing any time alone, but as Behuniak, (2006) points out, social networking sites like Facebook and Myspace, cell phones and text messaging contribute to an atmosphere of “uninterrupted interruptions, fragmented focus and noise” (p. 44). Furthermore, we are consistently told to maintain this attention. Nextel’s Stay Connected, Nokia’s Connecting People, and Verizon’s Can You Hear Me Now? all demand that we pay attention to the implications and possibilities, all the time, of remaining connected.

Certainly, the ability to connect with others is important and valuable, but a constant state of interruptions can have dangerous effects on learning. As Susan Behuniak argues:

Since most of us form our best ideas or have our most creative moments when we are alone, . . . undisturbed noise can be disruptive to the thought process. Thinking [then] becomes an endangered activity. While this has both social and political ramifications, educators should also be concerned about the impact this has on the student as a person. (p. 44)

Thus, one can be literally alone, surrounded by disruptive gadgets, but at the same time may not be able to truly be alone with one’s own thoughts, the state of solitude. One is never really alone, in terms of an ability to think well, when one is surrounded by distractions.

William Deresiewicz realizes that time alone, with regards to thinking processes, is valuable, however, he notes that popular innovations in technology, like text
messaging, makes this difficult. He describes the time when, curious about the fact that a teenager he knows “had sent 3,000 text messages one recent month” meaning roughly 100 text messages a day, realized that “she’s never alone for more than 10 minutes at once. Which means, she’s never alone” (Dereseiwicz, 2009, B6). He then asked his university students about the value of solitude in their own lives. “One of them admitted that she finds the prospect of being alone so unsettling that she’ll sit with a friend even when she has a paper to write” (Dereseiewicz, 2009, p. B7). It is interesting to note that when asking the question, Dereseiwicz uses the term “alone” and “solitude” interchangeably. He is asking whether his students spend time alone with their own thoughts, without relying on distractions related to communication with others. While these two terms are often used in this way, it is important to consider the difference, as innovations in technology can mean that one may be alone, but not necessarily attune to one’s own thoughts. Solitude is a choice; it is a state of being alone without being lonely, a positive and constructive state of engagement with oneself.

A person’s fear of being alone is not surprising considering schools are noisy, busy places. Students are managed and directed as large groups from task to task, constantly involved in group activities, and rarely spend any time alone. John Taylor Gatto argues that this is apparent when he notes that students who are conditioned by school practices “are conditioned to dread being alone, and they seek constant companionship through the TV, the computer, the cell phone, and through shallow friendships quickly acquired and quickly abandoned” (Gatto, 2003 p. 35). Like Derescewicz, Gatto relates being alone with being with one’s own thoughts, without distractions. And yet, students that do spend time alone are often the ones that are either
in trouble or unable to work at the same pace as the rest of the class. Further, if students cannot manage to keep up, they are sometimes streamed through IEPs (Independent Education Plan), a modified curriculum that does not involve working alone, and ensnared with the stigma attached to different paces of learning, or worse, diagnosed as ADHD and quickly medicated. We talk about children learning at their own pace, but do we really understand the conditions required for that to occur?

Like Gatto, Altobello (2007) maintains in Concentration and Contemplation that:

Students (especially upper-division level) need to develop models of learning that immerse them in the material they are studying. We expect this immersion, and we give students intellectual tools that deepen their immersion: using examples and counterexamples, developing research competencies, unpacking the argument, finding the underlying assumptions, looking at the relationship between the conclusion and its supporting evidence and presumptions, and so on. However, as with any tools, these tools need an energy source to function. One key source of this intellectual energy is certainly the student’s interest, which automatically focuses the student. Yet, the interested and highly motivated student is often the exception rather than the rule, and part of our responsibility as educators is to generate the magic that sparks the student’s interest. However, even when we succeed here, the student still needs to have the capacity to focus and to reflect and needs to have the ability to sustain concentrated attention as well as to ponder and penetrate issues by using her intellectual energy. Hence, we can say that the student needs to have well-honed powers of concentration and contemplation. (p. 357)

All educational settings should closely consider whether students have the opportunity, the space, the silence in which to think. But as Susan Behuniak (2006) argues, this is especially problematic in urban settings that are usually noisy and crowded. She argues that:

Private space today is seemingly a privilege. It takes money to be alone. The poor tend to live not only in noise, but also in crowded conditions. However, solitude may be most important for those who are viewed as less powerful, marginal, out of the mainstream because it is their voices that are usually the most silenced, devalued, or ignored. (p. 47)
Clearly, there is an imperative for learning institutions to ensure environments promote opportunities to work alone without distraction that accommodates all learners, including those from less advantaged social and economic regions. If learning activities that incorporate time alone have the ability to train and improve attention (Csikszentmihalyi, 2008), this is a learning opportunity of which we as a schooling culture are in desperate need. However, if the ability to consider the benefits of spending time alone, the quality of solitude, is not met, schools will continue to dismiss some of the most valuable learning tools that have a capacity to create independent thinkers and autonomous learners.

An examination of some of the major theories in experiential education, namely the works of Dewey, Kolb and Hahn reveals connections between experiential learning and Csikszentmihalyi’s concept of flow. Where Dewey and Kolb emphasize reflection as a major component to experiential learning, which requires solitude, a state of being alone, Hahn advocates solitude as a necessary condition for reflective learning to take place. Similarly, a condition for flow to occur is concentration, which in turn requires being alone with one’s own thoughts, in order to occur successfully. Aspects of metacognition, thinking about thinking, are apparent in both experiential learning and flow states, reinforcing the idea that learning processes may be improved while in solitude.
Chapter Three: Methodological Overview

In an attempt to discover how individuals describe the processes of learning that occur when they participate in activities in which they recognize an experience of a flow state, I conducted personal interviews with six participants. The participants were chosen from the Kingston community through “purposeful sampling,” where participants were selected because I judged they could offer useful insights into the phenomenon of interest; they are “information rich” (Patton, 2002, p. 40). I was looking to speak with participants who had given the issue of flow-based, experiential activities that include solitude and their relationship to learning some thought, and because of their profile in various strategic communities. As a result of participating in the Kingston community in a variety of ways, including the yoga community, as a musician and supporter of the arts in Kingston’s arts community, as well as a relationship with a number of amateur distance runners in the community, I was able to seek out individuals who I understood had a particular relationship with the activities concerning flow. Participants were invited to participate in the study through a letter (Appendix A). While remuneration was not provided, participants were informed that they would be contributing to a better understanding of education and learning, which may benefit their respective places of study, businesses and communities. Interviews lasted roughly 60 minutes and were audio recorded using a Zoom recorder. Additionally, I used “snowball sampling” with participants, where they suggested additional participants whom they believed would be helpful (Patton, 2002, p. 194).
After reading the Letter of Information and signing Letters of Consent, interviews took place with each participant individually, at a location that was chosen by each individual participant. I wanted to ensure that participants were able to discuss freely, openly, and comfortably about themselves and their experiences. Because answers to questions involved an intense amount of self exploration, and also because the answers to many of my research questions involve deep thinking and conceptualizing abstract concepts, I wanted to make sure that participants felt they were in an environment where they felt this was possible. All participants were engaged in the interview process and eager to discuss the answers to my questions. Participants will be introduced later in this chapter.

**Phenomenology**

The methodology of this study was guided by the theory of phenomenological study as “phenomenology seeks clarification and understanding of people’s perceptions and experiences, especially the meanings they give to events, concepts and issues” (Mcmillan & Schumacher, 2010, p. 346). As I was attempting to understand how participants describe the value they find in learning through these different kinds of activities, I was not looking for a description of their chosen activities, but rather a description of their insight into the importance of their chosen activities; how these activities inform their learning processes. For this reason, a hermeneutic phenomenological approach was necessary because “phenomenology is not concerned primarily with the nomological or factual aspects of some state of affairs; rather it always asks, what is the nature of the phenomenon as meaningfully experienced?” (Van Manen, 1990, p. 40).
In the application of phenomenology, I followed the framework that Van Manen has developed for hermeneutic phenomenological research:

1) turning to a phenomenon which seriously interests us and commits us to the world;
2) investigating experience as we live it rather than as we conceptualize it;
3) reflecting on the essential themes which characterize the phenomenon;
4) describing the phenomenon through the art of writing and rewriting;
5) maintaining a strong and oriented pedagogical relation to the phenomenon;
6) balancing the research context by considering parts of the whole; (Van Manen, 1990, pp. 30-31)

Regarding Van Manen’s first point, the phenomenon that seriously interests me is the development of learner autonomy and how experiences like distance running as well as the experience of solitude it provides contribute to the processes of learning that I engage in as a result. This interest has led me to explore how others who perform similar activities experience and describe their own lives and learning processes. I am convinced that learner autonomy is the most valuable tool in education, because I have certainly experienced the confidence derived through experiential flow-based activities that contribute to my own learner autonomy. If I can begin to understand how others may come to experience learner autonomy, I can contribute to my own teaching practice, but also to the education literature on this subject.

To “investigate experience as we live it rather than conceptualize it,” Manen’s second point, means, “the researcher actively explores the category of lived experience in all its modalities and aspects” (Van Manen, 1990, p. 32). I explored the phenomenon
of learner experience through an investigation of published materials as well as through information from direct interaction with participants through a guided interview. A key aspect of each interview involved asking participants to describe specific experiences in specific situations.

In order to reflect on the central themes that characterize the phenomenon “that which grounds the things of our experience” (Van Manen, 1990, p. 32), I read and re-read the transcripts to find three major themes that appeared among all participants: 1) the value of learning through experience, 2) the state of concentration that is employed and managed while experiencing a flow state and 3) how solitude relates to their chosen activities.

To describe the phenomenon through the art of writing and rewriting is a consistent process of interpretation, internalization and reflection. In order to delve deeply into my participants’ thoughts and reflections, I handwrote transcripts while they were being audio recorded, and then later re-wrote the recorded data on computer. After the transcripts were processed, I listened to them again while comparing them to my field notes and made additional notes directly onto the processed transcripts. Van Manen’s assertion that “Phenomenology is the application of logos (language and thoughtfulness) to a phenomenon (an aspect of lived experience), to what shows itself precisely as it shows itself” (p. 33) means that the language used to express this phenomenon needs to be constantly addressed and re-addressed in order to ensure precision to the greatest extent possible.

For me, the very nature of exploring and describing the experiences of individuals with relation to experiential, flow-based activities in solitude is the result of
a keen interest in and genuine passion for learning through experience. Indeed, as a practitioner of a number of similar activities in which the research subjects participate, I am positioned in a place that shows genuine interest and hopefully understanding. I am, as Manen insists, “oriented to an object [which] means that we are animated by the object in a full and human sense” (Van Manen, p. 33).

Lastly, regarding Van Manen’s final methodological component, balancing the research context by considering parts of the whole, has encouraged me to consistently step back and consider the parts as they contribute to the whole, but also not to forget the value in assessing the parts individually. Stepping back from a phenomenological study to consider its place in the contextual framework of schooling and society has exposed the ways in which processes of power and knowledge are at work and how these structures maintain others within it. This final component has allowed me to consider not only the materials in isolation but also the fragments in relation.

**Interviews**

I chose the interview approach as it offers the greatest potential to represent participants’ perceptions, opinions and experiences of flow-based activities and their relation to education and learning. As this process is intended to gather information and uncover knowledge, the interview approach seems most appropriate. Additionally, this method is ideal for acquiring deep, saturated data from knowledgeable participants.

The structure of the interviews were open-ended to encourage “authentic dialogue” between the participants’ and myself, with the use of an interview guide to provide a framework for discussion (Patton, 2002, p. 344). I used the interview guide (Appendix B) to ensure that the same questions and methods of inquiry were pursued
with each participant. The combined strategy of the open-ended interview plus interview guide allowed more flexibility when it was desired to explore topics in greater depth but also to maintain consistency of stimuli (Patton, 2002, p. 347).

The interviews were guided by the five main research questions:

1. What is the value of the kind of learning that takes place during focused, task/flow-based activities?

2. How does solitude contribute to the learning process during flow-based activities?

3. Why does this specific learning experience seem unavailable or inaccessible to students in educational contexts like public schools?

4. Why do some people seek flow-based learning experiences and what/how do they gain from them?

5. How might identification with this method of learning help improve the educational experiences of individuals?

Additional questions included:

1. How do you find/manipulate conditions for flow to occur? (Eg. Do you go to a specific physical place?)

2. What methods of concentration do you utilize?

3. How have these methods been practiced, and for how long have you been using them?

4. How can your experience of your activity be described as a learning process?

5. Have these experiences during your chosen activity helped you with other tasks that require concentration and focus? How?
Upon receiving permission, participants and I arranged when and where each interview was to occur. Most participants chose to meet either in their home or at their place of work. Interviews took place in a different location with each participant.

**Introducing Participants**

The range of participants includes a variety of ages, education levels and interests. I am in no position of power over any of the participants. I do not work with them; none of the participants are students with whom I work in any capacity. All participants experience or observe the experience of flow, as in the case of Participant F, in a variety of settings and activities. The activities, which correspond to each participant, are as follows:

Participant A: Yoga practitioner, female, 38 years old, yoga instructor, counselor

Participant B: Painter, female, 22 years old

Participant C: Long distance runner, female, 20 years old, undergraduate student

Participant D: Athletic coach, male, 41 years old, educator

Participant E: Musician, female, 27 years old, graduate student

Participant F: Video game player, male, 27 years old, graduate student

Participant A has been practicing yoga for roughly 6 years, around 6 – 7 times a week. She also practiced gymnastics and distance running as a child. She is both a teacher and practitioner of a method of Hatha yoga that is practiced in a heated environment at 105 degrees with 40% humidity. Her yoga practice has sparked an interest in meditation and mindfulness and she routinely attends workshops regarding practices related to improving awareness and focus. As an instructor, her classes are guided by the principles she uses for her own yoga practice – the importance of being
aware and in the present moment. She grew up in Kingston and told me that she was the only female in her north end neighbourhood who went to university, while she is quick to add that she was certainly not the smartest. Participant A works with youth as a counselor and feels very strongly about incorporating skills that she learns through her practice into her professional work with her clients. She and her partner have two daughters who are currently in post-secondary education. She holds two Masters degrees and is currently looking forward to beginning her PhD.

Participant B works as an artist in sculpture, painting and drawing. She grew up in rural Ontario with numerous opportunities to explore and be alone. She is currently focusing on establishing herself as a career artist.

Participant C has been distance running every day for nearly nine years. She can remember a period of six weeks when she did not run due to injury but that is the only time she has missed. She grew up in a rural community in the Annapolis Valley, Nova Scotia, was always very involved in extracurricular activities including sports teams and student government, and she is currently working towards finishing her undergraduate degree in psychology.

Participant D is a teacher and coach for track and field and distance running at the intermediate level at a public school. He grew up in Scarborough, near Toronto. He was part of a number of athletic teams as a teenager and as an undergraduate student and feels very strongly about passing on the skills he developed as an athlete to the students he works with now. He is a strong supporter and active participant in social justice initiatives both at his school and in his community.
Participant E has been playing music for roughly three years. Her work as a musician is heavily informed by an inventive and improvisational interest. She is currently working towards a Masters degree in science.

Participant F is currently working towards a doctoral degree in English literature. His interests, aside from video games, include reading fiction and history, writing, frequenting pubs, and playing soccer. He was born in Montreal, but has lived in Ontario for twenty years.
Chapter 4: Analysis

Introduction

All participants were very interested in sharing their experiences and how they find their activities relate to their own processes of learning throughout the activity but also in their outside lives, both work and personal. All six participants were eager to describe in detail how exactly their chosen activities have helped them in terms of a learning process. While some participants, such as participant C, discuss their learning outcomes in terms of a visual map, others describe their outcomes using more abstract concepts. All participants found that the experiential aspect to their learning process was incredibly important. Many describe it in a way that explains that they could not have accessed the particular learning outcome had it not been for a physical element.

Participants also discuss and describe the state of concentration that they experience while performing their chosen activities. Many participants share words like “zone” and “flow,” which I was careful not to use throughout any of my interviews and so it is interesting to note that these terms were used nonetheless. Participants describe the state of concentration as something that is extremely beneficial to their learning process, and indeed something that is necessary and sought after. Many participants describe specific conditions that are needed in order for their desired state of learning and experience to occur, namely the importance of goal setting, and limits.

All participants discuss the importance that solitude has in their activities and in their lives. Many describe time in solitude as a must-have in their day-to-day lives,
especially with regard to their activities and learning outcomes. Many participants describe how an understanding and familiarity with solitude aids them not only throughout their activity, namely in their ability to concentrate and focus, but also in their lives outside of their chosen activities. Finally, participants also describe how the understanding that occurs through this experiential process contributes to a transfer of what they learn to other aspects of their lives. Some participants discuss noticing a difference in how they can relate to stress and confidence with greater ease as a result of practicing their chosen activity.

The following sections have been organized according to themes, which were found in common among data from participants. Theme I is an exploration of how all participants describe the importance of an experiential activity to their overall learning process. Theme II examines how participants describe the state of focus and concentration in which they are engaged during each activity, and how participants manage the conditions for this state to occur. Theme III discusses how participants value solitude as a tool for their learning process.

**Theme I: Physical and Reflective Aspects of Experiential Learning**

*It had to be manifested physically in order for me to really notice the difference:* Participants Explain the Importance of Their Chosen Experiential Physical Activity to Their Learning Process

**Introduction.**

The following subsection explores the participants’ descriptions of their activities, particularly the value they place in the physical activity itself. Participants maintain that this physical aspect of the activity contributes significantly to their overall learning process.
While theories in experiential learning have dated as far back as Aristotle, recent theories and studies in experiential learning suggest that learning from experience continues to be a valuable tool. An analysis of participants’ explanation of their experiences with a physical activity shows strong ties to the value of learning through experience, namely Kolb’s Concrete Experience stage. Many participants describe the availability of a reflective process as a result of the initial learning phase of their experience, which addresses Kolb’s and Hahn’s reflective stage of learning.

Many of the participants discussed the importance to them of experiencing an activity with their body; that it was not enough to understand the concept of what they were learning cognitively, but that adding a physical element was what helped them process and understand the activity in which they were participating. An analysis of the responses by participants shows similarities to Kolb’s learning cycle, specifically with regards to Concrete Experience (CE) and Active Experimentation (AE) stage, where learners are more inclined to achieve results through learning by doing. However, participants also discuss their need to consider the situation they have experienced in order to ensure that they can learn about it again, which exhibits the importance of reflection, Kolb’s Reflective Observation stage.

**Responses.**

Participant A, the yoga practitioner, describes the experiential stage of her activity as extremely important to her own understanding. She describes the process and the movements of her practice as extremely deliberate. As a result of the kind of work she does as a behavioural therapist, she maintains that she is invested in learning about the psychological or mental processes involved in understanding and learning.
She maintains that while she had studied the theories behind these processes, her understanding was not complete until she was able to incorporate a physical element of which she felt she had a fuller understanding. When I ask her to describe how important the physical element to the experience of practicing yoga is for her, she answers that despite studying theories in cognition and in behaviour, it was the physical element of practicing her activity that provided the most significant understanding:

Researcher: At what point did you begin to notice that this was valuable to you?

Participant A: It probably took me a few years in terms of working on it physically, I think I’d been working more intellectually on it mentally or cognitively for many years but it wasn’t until I added an actual physical body process that it really transformed more dramatically and more noticeably so for me it wasn’t just a matter of getting it right in my head. I really . . . it had to be manifested physically or integrated physically for me to really, really notice the difference in my life and in my relationships particularly.

Participant A shows evidence of Kolb’s CE (concrete experience) stage of learning, where learners are most likely to approach a learning situation by experiencing the specific event, as well as the AE (active experimentation) stage, where learners learn by doing (Kolb, 1984). A recent study regarding experiential learning of study skills in student athletes revealed that students valued their concrete understanding of their experience in order to gain a clearer insight into the skills that are used for these tasks (Groves, Bowd, & Smith, 2010).

Participant A also describes the importance of reflecting on the experience, not while participating in it, but afterwards. She expresses that her practice encourages her to be self reflective and introspective, and that through this understanding she is better able to comprehend the physical experience of the activity to a larger degree, but that
self-reflection also aids in an understanding of herself and her learning process.

Participant A then, expresses the importance of learning by doing in combination with learning by reflecting:

Researcher: Do you think that what you learn can also be applied outside of the hot room?

Participant A: I don’t think that I would be able to really comprehend everything that I gain from my practice if I didn’t also consider it outside of my practice. Like, if I’m in the bank line, and it’s taking a really long time, there would be a time when I’d think: “Oh god this lady is taking forever and I’d get pissed off or something.” But now, I mean, I feel like I’m able to think about the moment I’m in, and let it go, just like I do in my practice. And that’s a really valuable tool. It’s a training process and to that extent it is a learning process. You really, really do train your mind to focus on specifically on the moment you’re in and on yourself in the moment. And that training you know it um, it is a learning process. And it can be accessed outside of you know, the initial experience.

Participant A is describing the benefits of taking the time to reflect on her learning experiences, and the positive outcomes that can occur when we consider learning as a process of different levels of experience. Indeed, this sentiment is echoed by Dewey in that “experience is the result, the sign, and the reward of that interaction of organism and environment” (Dewey, 1980, p. 22).

Participant B echoes similar sentiments about why the directly physical experience is so important to her overall process of both working and learning. She describes the opportunity to be able to express herself through a physical process as important because it allows her to make connections with herself. Because she works in a number of mediums (painting, sculpture, drawing), her work requires her to experiment with ideas that come from “within [her]self” as well as “outside of [her]self” (Participant B, personal communication, February 1, 2011). Throughout the interview,
she uses her hands to gesture towards pieces of art on the walls in her studio, the floor; she often stands up and walks around the room while talking, only to sit back down again. She is very comfortable using her body to express herself. When I ask her how the physical element of her process contributes to the overall experience she describes it as a more comprehensive expression of herself:

Researcher: Can you describe the physical process? How is this aspect important?

Participant B: I like the idea of filtering things through myself in different ways, with different mediums. I do this best, most easily, obviously, by using my body. Like with a brush, or sculpting, or even taking a picture. The use of your body is a large, um, really important part of it. I like sculpture especially because I like using the whole physicality to express myself. So if I have an idea I like being able to bend a piece of wire to illustrate what I’m thinking. It seems like a very full expression of my mind and my body. I like it because it’s something outside of myself. It’s concrete. It’s something I touched and made with my hands.

Participant B is able to explain why the physical element of the experience of making art is important to her. She has obviously considered these reasons before, for her overall experience. Because her activity depends on her being able to “illustrate what [she’s] thinking,” the ability to use her body and experience a physical aspect to the process is deeply important.

However, Participant B also describes the necessity for her to reflect on her process. She believes that “forgetting about it” and then being able to return to her projects allows for “clarity:”

Researcher: You mention that you try to forget about something before you come back to it. What do you mean by that?

Participant B: I like the act of not trying to figure it out all at once. Walking away from it, and then doing things, and then being able to come back in
complete silence and just think about it. Um, thinking about what I’m doing while not in the process of doing it, it keeps this really nice clarity.

This observation by Participant B shows similarities in the literature regarding the value of the reflective process in experiential learning. In his argument for student reflection as the key link between experience and learning, Kelin insists “to promote continued success is dependant on their ability to repeat and extend their understanding of the learning process” (Kelin, 2007). For Participant B, the reflective stage of her process is important for her overall learning experience.

Similarly, participant C describes the importance of the physical experience of running as a context for her understanding. Participant C runs up to ten or twelve kilometers every day. She is easily able to articulate the importance of the actual physical element of running to her overall understanding because of what she can gain from the particular experience. Participant C explains that she has developed a method of organizing her thoughts through the physical aspect of running. When she is running, she is able to organize her thoughts, calm her anxieties, and direct her focus more easily than if she were to sit at her desk:

Researcher: Can you describe how running helps in that sense? You mentioned stress and homework. How does running affect you regarding these things?

Participant C: When I got to university and you know things were always really busy I just needed time to deal with that, with stress, anxiety, you know exams, and so instead of taking an hour out of my day at home sitting at my desk trying to figure out how to deal with all of these feelings and piles of work, I found it really easy to just do it when I was running, you know? ‘Cause when I run I can think about stuff that stresses me out or you know that’s bothering me. I seem to be able to figure this stuff out more easily when I run for some reason. It’s like, a rhythm, moving your legs and breathing. I can just do it easier running than sitting at my desk. So if I’m thinking about things that
bother me, running gives me a chance to really figure them out so usually when I get back from a run they're bothering me less cause I’ve dealt with them.

I ask C if she can elaborate on how she “figures stuff out” and how it relates to the rhythm of breathing and “moving your legs” and she describes a process of mapping out her thoughts while she runs so that they make a list or picture and so that she can organize and visually comprehend her thoughts more easily. She makes lists while she runs of what she has to do that day, or that week. Additionally, if she has a more complex task, like a research essay, she will use the time while she’s running to plan out how the essay will be organized. This method of creating a visual image while participating in an athletic activity is consistent with a qualitative study which explored the experiences of elite paddlers who describe the mental images that they develop during practice and competition in order to enhance their performance. They found that “the athletes demonstrated a sophisticated understanding of imagery processes including imagery of realistic behaviours rather than perfect performance” (MacIntyre, 2007). This suggests that Participant C is able to make important learning connections as a result of a direct experience, such as running. She maintains she never had a name for these visual plans that she makes in her head while running until she came to university and her roommate showed her a model of a mind map:

Researcher: These visual images that you would conjure up in your mind when you were running, were you taught how to make them before you started running? Or can you remember?

Participant C: No one had ever taught me what a mind map was. I just thought I made these things up in my head. When I saw that people use these, these models I was like, oh, I know what those are. I’ve always done that. That’s so weird.
Participant C briefly discusses some of her first year university experiences before we are able to return to the topic of the repetitive motion of running and how it relates to her organizing process:

Researcher: Which specific aspects of running contribute to your ability to focus?

Participant C: I think that, well for me, the breathing part of it is a big one. Like, distance running, it is such a repetitive motion. You are just doing the same thing step after step, so for me I think that that’s what allows me to focus and make these maps. Just doing the same thing over and over, there’s no other distractions, so it’s easy to just concentrate fully on something like ‘oh how am I going to plan out this research paper?’ like that.

She adds that running “teaches your body about yourself.” When I ask C what that means, she elaborates by explaining that:

Participant C: When you run, you realize that you can always go farther and do more than you think you can do. You can always push farther. Your body responds to those challenges. Your muscles remember. It teaches you that challenge is a beautiful thing that holds a lot and that when you achieve it it’s amazing. And you learn more deeply about yourself, for me, from making mind maps and how I think to the type of person I am. Maybe you can learn these things some other way, but for me, definitely the motion, the action of running is the absolute best way for me to understand those things, like, mentally, and so for me it comes from this really physical place, from running.

Participant C articulates the strong connections she has made with both her personal and her intellectual self through the action of running. The physical process of the activity helps her work through anxieties, and plan out methods of learning. She maintains that she would not be able to do this were it not for the repetitive nature of the activity of running, which she says helps her with cognitive processes like concentration but also with understanding herself - how she responds to discipline and challenge. The physical aspect of her activity is central to these revelations.
As an athletic coach, Participant D is enthusiastic to discuss the many ways in which he believes that physical activity benefits his students. He works at a school in a community where he maintains that many of the students do not view school life positively, especially inside the classroom. He talks about how many of his students have trouble concentrating for reasons including their attitudes towards school to something as simple as not having enough to eat in the mornings. Participant D believes that because of these reasons, participating in a physical activity is even more important, most especially a disciplined one. He finds that the students exhibit levels of concentration and awareness when they are engaged in these activities that he does not see in the classroom. Here, he talks about coaching students during the lunch hour track-and-field practice and observes that students show levels of engagement on the field that he doesn’t necessarily see in the classroom:

Researcher: Why is it so important, in your opinion, to engage your students in activities like track-and-field?

Participant D: Ok that’s a great question. It’s gonna be a long answer.

Researcher: That’s great!

Participant D: Ok well it’s really amazing cause you see them practicing for long jump or something, right? And you know I encourage them, but I remind them too, that this is all them. They make the effort. And you really see a difference in engagement; I’m talking different that from inside the classroom. Some of these kids, they can’t sit still for even a minute in class, can’t sit and read, have to go to the bathroom, walk around, whatever. And then you get them out on the field and it’s like, in terms of concentration, they’re different people. Ok not all of them, but some of them will really surprise you. And I’m talking boys and girls. They are really engaged. They don’t stand around, they don’t bug the other kids while in line while waiting their turn. It’s really pretty exciting to see. I mean, even if they’re not very good (especially if they’re very good) but even when they’re ok, it’s nice to
see them concentrating and engaged. There’s something there, something going on there. It’s great. It’s why I love coaching.

I ask Participant D if he thinks this kind of engagement he observes is specific to track-and-field activities like long jump, and what he answers is very telling. He says that he notices this kind of engagement in solo sports, which comprise most events in track and field. He says that students, while engaged in these sports, “have no one but themselves to believe in, and I think they really get that in solo sports, so you can’t you know, blame anyone for messing up a goal or defense, or you know stuff like that” (Participant D, personal communication, February 3, 2011). Although Participant D is not participating himself in these activities that he is describing, it is clear that he is able to observe how these activities might benefit his own students.

Participant D’s observations are very similar to those made by Allison Cameron, a special needs teacher who was interested in the connection between physical exercise and academic performance. Cameron’s study, *Movement Matters*, consisted of a physical exercise and academic program for her inner city, at risk teenage students. For four months, students spent the first twenty minutes of every 45-minute class on treadmills or exercise bicycles and the remaining 20 minutes on the academic subject. Students improved an average of six grade levels in sight word vocabulary in only four months. As well, students were focused and showed increased self-confidence (Cameron, 2011). Certainly the links between exercise and both personal and academic success can be measured tangibly.
Similarly, Participant D can observe and articulate the differences in his students on and off the field. Their ability to focus and concentrate is definitely aided as a result of physical, solo sport activities.

Participant E is a musician with a background in dance. She is someone who engages in a number of activities that she considers both physically and cognitively demanding, so is able to elaborate on a number of my questions. When she answers, she often gestures with her hands and her eyes. She answers my questions both excitedly and very seriously. Naturally, for her, the act of creating music, while a cognitively demanding experience, is heavily reliant on a physical understanding first.

Participant E and I meet at her home where she creates and records most of her work. We discuss the history of what brought her to music, and she relates a lot of her musical experiences to the activity of dancing. She says she can sense a physical understanding that “comes from the same place” between dancing and making music. I ask her about her relationship to the physical aspect of music playing, and she discusses how space is an important aspect of her physical experience and overall understanding:

Researcher: How important is a physical relationship to understanding music, or to playing music?

Participant E: When you’re aware of the space around you, like dance, you can make all kinds of connections that are not physical, like mental connections. And it’s very similar in creating music. I understand the physicality of a keyboard, for example. I wouldn’t be able to understand how that space works just by looking at it, or by reading music theory. I have to touch it and experience it to figure it out for myself. That’s the only way for those other connections, those deeper ones, to happen.

Participant E’s sentiment regarding an ability to develop a greater understanding as a result of “[figuring] it out for [her]self” (Participant E, personal communication,
February 2, 2011) echoes a study which observed Maestro Mueller, head of the Conducting Department at The Curtis Institute of Music, as well as the Conductor Emeritus at Juilliard and some of the teaching methods he incorporates with his conducting students. The study explores how he encourages students the freedom to learn on their own, through their own experiences rather than learn by watching him:

Occasionally Mueller admitted to his students that it was better that he not demonstrate something. He challenged [a student] to decide for himself how he could [direct musicians through conducting gestures] by asking, “How can you show it? Try to show it. I can demonstrate it, but something must come from you. You must communicate with the players. You must connect with the players” (Allen, 2011).

I ask Participant E to expand on the notion of “deeper connections” and how those relate to a physical experience. She discusses the repetitive action of activities that give way to muscle memory. She believes that the kind of automatic response that develops when one does an activity over periods of time allows the mind to concentrate on more cognitive processes.

Researcher: How does the act of physically playing a piano help what you term the cognitive aspects?

Participant E: Your muscles, they just start to remember, and you don’t have to think about it “oh am I pressing this right” or “oh am I in a minor key?” You can think instead about things like: “I’m going to make this sound just a little bit darker here because that’s the mood I’m trying to go for.”

Researcher: So muscle memory then should come first is what you’re saying?

Participant E: Muscle memory. That’s it. That’s key. Like, how do you expect to get to any kind of understanding of how something works until you have all the bugs worked out in terms of the primary stage, the physical movements?

Indeed, “all the bugs” are the processes that occur during Participant E’s activity of playing the piano. Without the experience of this stage, she cannot proceed to her
desired stages, which involve connections made cognitively. Participant E describes the physical element of playing music as extremely valuable to her overall experience. As the majority of her work consists of improvisational music, the ability to be able to think about how to compose music with another person is reliant on her physical capabilities being automatic.

However, Participant E also describes the necessity for her to be able to separate herself from her activity, while still considering the ways in which she is able to participate in it. Her claim that her ability to be able to “be without it” allows her to “comprehend it in another way” (Participant E, personal communication, February 2, 2011) illustrates the importance the reflective stage holds in the overall learning process of her activity.

Researcher: Do you ever find yourself thinking about the music you make outside of actually playing it?

Participant E: Oh sure, like, if a riff comes into my head or something, yeah absolutely, or if I need to take time to just think about what I wrote, let it settle, consider it in a place outside of it.

Researcher: What do you mean by that?

Participant E: Because sometimes you have to be without it, you know? Considering what you’re trying to create or achieve, you need to do that outside of actually playing it. By doing that, you’re still participating in it, but you can comprehend it in another way, like seeing it in your head as an image or something. It’s just as important; it’s like a tool that can’t be ignored.

Participant E’s admission of the value of this aspect of her learning experience reinforces the literature expressing the value of the reflective stage of the learning process. While Kolb’s learning model exhibits value in the reflective stage of learning, contributing to a more homogenous learning experience, numerous studies have
demonstrated that the reflective process exhibits positive effects on learning experiences (Marcovitch, Jacques, Boseovski, and Zelaso, 2008). These learning experiences range from reflective writing, where the process allowed students the opportunity to “improve understanding” and “internalize taught concepts” (Watson, 2010) to music education, where critical reflection was considered a “powerful form of faculty development” (Bernander, Pettit and Harmony, 2009). Participant E’s outline of what she values in her learning process regarding her physical experience of her activity highlights the value that the reflective stage holds in the overall experience.

Lastly, Participant F describes his experience with video games not unlike the experience of reading. The video games he plays are referred to as RPGs (Role Playing Games), which require continuous reading and strategizing. Players take on the roles of characters in a given setting and act out these roles as part of a narrative. They are based on a complex storyline with numerous characters and a point system. He maintains though, that if he is distracted, he will not enjoy the same experience.

Researcher: What do you like about playing video games?

Participant F: Playing video games, I am able to clock out mentally; I can focus on a task that is not work related. And getting to just focus on playing is really satisfying. Even though it’s just pretty much reading, it’s really enjoyable. It’s a different kind of reading. You know when you’re reading a really good book or something, and you just read a really great part, and you put the book down because it was such a nice passage or it moved you or whatever, and you sit and you just think about it. You can do that in these games, too, which I guess is what I mean when I say it’s like reading. In these kinds of games, you can pause and you’re not going to suffer consequences, unlike other games.

Participant F’s reflections point to the possibility that reading may be considered an experiential learning activity when he includes the fact that he appreciates the ability to
take breaks and “think about it” (Participant F, personal communication, February 5, 2011). Certainly the literature that explores this concept has found that indeed it is. James Paul Gee’s, *What Video Games Have to Teach Us About Learning and Literacy* asserts that video games teach very well because video games illustrate the “potential of video games” (9) by “situat[ing] meaning in a multimodal space through embodied experiences to solve problems and reflect on the intricacies of the design of imagined worlds and the design of both real and imagined social relationships in the modern world” (Gee, 2003, p. 48). Certainly the kind of reading that Participant F is describing is considered an active process, where he is engaged in a concrete experience (Kolb). His activity also includes an element of reflection, which suggests that a link between video game playing and experiential methods of learning.

**Reflections on theme I.**

Participants were able to describe the importance of the physical aspect of engaging their bodies in their chosen activities and were also able to describe the benefits as a result of this direct experience. While they participate in a variety of activities, participants are able to articulate the many different ways that they benefit from the direct experience of distant running, musical practice, and video gaming, among others. What the participants have in common is an understanding of the learning benefits that are specific to the physical aspect of experiential activities, from the ability to produce mental imagery, to making deeper connections with alternative cognitive aspects associated with their activities. Further, participants were able to discuss how utilizing the opportunity for reflection on their practice helps them deepen their understanding of the activity as well as themselves, illustrating a connection to
experiential learning. Both the physical aspect of their activities as well as the reflection it allows them illustrates connections with flow theory, where a physical experience is also valued but concentration must be maintained, and solitude, which is a condition of concentration.

**Theme II: In Flow**

*When I’m in it, when I’m doing everything perfectly, it’s like breathing. I’m not aware of it: Participants describe their experience as a state of focus and concentration*

**Introduction.**

The following subsection outlines participants’ descriptions of the focused states they engage in while practicing their activities. Participants liken their experiences to a meditative state, where concentration and focus are greatly valued. Additionally, participants show evidence of metacognitive approaches to their chosen activities.

While participants first regard the physical aspect of their activities as crucial to their overall experience, all participants also describe how this physicality leads to a state of acute awareness and focus. The participants maintain that their activities allow them to access a state that is not unlike Csikszentmihalyi’s description of flow. The participants use words like “zone,” and “trance” to describe the state of deep concentration they find themselves experiencing. It’s important to note that this terminology was not mentioned in the literature that the participants received from myself (Letter of Participation/Consent Form), nor was this term discussed prior to our conversations. Participants are all able to recall that a sense of deep concentration indeed exists and is experienced while they practice their activities. Although they may
not access this state every time, they are certainly able to discuss the vivid instances in which it has occurred.

While there is an enormous variety of conditions under which flow has been observed, (Csikszentmihalyi, 1988, p. 85) the terminology that all participants employ to describe their experiences, however, seems to be rooted in the same conceptual idea of flow. And while this has been established in the literature as a result of numerous studies regarding flow, an analysis of transcripts from participants illustrates qualitative explanations for their perceived learning process(es). This subsection of theme II will explore how participants describe their participation in each activity and how it relates to concepts of flow, as well as what kind of engagement in terms of a personalized learning process occurs. Because all participants describe their learning process and how it relates to their flow state with terms that imply an awareness of their own learning processes, metacognitive components of learning will be used to discuss these results.

**Flow: participants in “the zone.”**

A number of the participants describe their experience as a meditative state where concentration and focus are highly valued and explored. Although participants are describing different experiences, the terminology they use is similar. Terms such as “zone,” “trance” and “deep concentration” were used often by a number of participants.

When Participant A is practicing yoga, she says that she has experienced being in a state of extreme awareness and concentration. The heated yoga practice in which she participates is demanding. The room is heated at a temperature of 105 degrees with 40% humidity, and the class lasts for 90 minutes. Everyone but the instructor faces the
mirror, and all are encouraged to maintain their gaze on themselves in the mirror at all times. This is to ensure that practitioners focus on themselves. She describes her experience as being in a “zone” and frequently uses terms like “attentive” and “focused” to describe the state. I ask Participant A if she can describe why she enjoys the practice so much considering the challenging conditions under which it is undertaken. She begins to talk about “the zone:”

Researcher: What is it that you like about the practice so much?

Participant A: There’s something about being in the zone [she gestures with her fingers to make quotation marks]. I really . . . several times I got that very distinctly. Like, you are just so concentrated it’s almost easy. When I’m in the [yoga] room I guess that would be when it happens most noticeably. This kind of experience, it’s like um, being exquisitely attentive to myself to the point where I don’t always notice anything else going on around me. Like I’m really very focused on my own visual ‘cause we face the mirror, and I really notice minutely different muscles in my body like I mean really tiny shifts in muscle use. But I’m not distracted, either. So it feels very um, not complicated but very precise and exact, the attention.

Participant A seems keenly aware of her own concentrative state while in flow. She can describe the instances where this most occurred and is able to discuss it in terms of a concentrative state. When she describes her experience in this state, her speaking tone is even and measured. Her assertion that she is being attentive to herself to the point where she doesn’t always notice what is happening around her is indicative of Csikszentmihalyi’s conditions for flow, specifically, where “Effortless involvement that removes from awareness frustrations, etc” (Csikszentmihalyi, 2008).

Similarly, Participant B is able to express a clear understanding of a similar state in which she finds herself when she is deep into her work. She often works through entire evenings into early mornings. She prepares for these working hours by carefully
choosing materials and considering directions she may take with them. She goes on long walks to find pieces of material that she decides to incorporate into her sculpture, and she also takes numerous photos while she is in the process. When she feels she is prepared, she tries to maintain an awareness of what she has collected and thought about to inform the next stage of her work. I ask her if she is able to recall when she feels most engaged when she is working, and what kinds of events lead to this state. She uses the term “trance.”

Researcher: Can you describe what you might be feeling when you’re working?

Participant B: Well, there’re so many different stages of working. Like, there’s collecting, there’s putting it all together, there’s physically being there, doing it, and there’s all sorts of breaks from that.

Researcher: Can you describe the feeling when you’re physically being there and doing it?

Participant B: There’s definitely been times where say for example working on a project, something happens over the whole span of collecting references and looking at art work, it all filters in so that when you’re actually doing work, you need all of that swirling around you to fuel you. Those are the times, the times when I’ve been most at, like, a totally focused state, or like, a flow or what I conceive of this idea is when there’s been this turmoil or uncertainty but it all comes out hyper-focused. I’d call it a trance. It’s a feeling of being in love, where everything just feels like it’s so chaotic but it’s kind of working out, too. I think those sorts of states, I thrive on them. I feel like I need to experience that to work well.

Participant B is so aware of the potential for her to achieve this state that she insists that she needs them to “work well.” Her choice of terms, “trance” and “hyper-focused” certainly suggest that she is experiencing a flow state.

Participant C describes the mental state of deep concentration she achieves while she is running, and can even track numerically how long it usually takes her to reach this point. Because she keeps track of her activity numerically, by distance, she is even
able to recall at which point in kilometers it takes her to experience this mental state. She refers to a deeply concentrated mental state as “the zone” and “a meditation” which, again, is supported by the literature in flow theory.

Researcher: Do you ever feel that you enter a particular kind of concentrated state when you run?

Participant C: Um, yeah I guess during my run I can reach this mental state where I guess people refer to it as “the zone” and I honestly believe I reach that and I can honestly tell you how long it takes with my run to get there. I have to go so many kilometers usually before I hit it and then I’ll . . . I just kind of hit it and then I go into it for the rest and it’s kinda like just this state where it’s not that I’m not aware of my surroundings, but they’re not as important to me per se as what I’m thinking about myself. It’s more like a meditation, and an understanding that these thoughts are just thoughts.

Participant D has observed similar states in his students. Obviously he cannot speak on behalf of the students regarding their feelings and how they experience a state of deep concentration, but he describes a time that he watched a student finish a long race. He describes his observations of the student during the beginning of the race, where she seems somewhat distracted, and then he describes his observations of her nearing the end. He describes her gaze and uses words like “determined” and “steady” to describe what he sees in her demeanor and her stride:

Researcher: Do you think you can ever see that kind of concentration in your students?

Participant D: Yeah I think you can see it. I think I can sense when they’re doing something that is totally engaging them so much so that it seems like they’re out of it. I remember last year I watched this one student run the 1500 meters. That’s a long run. It’s always the last event and most people don’t stick around for the whole day. And she just ran the race, super steady. There were people on the sidelines cheering her on and I watched her ‘cause I really wanted to see how she’d do in this. And the first few times round [the track] she, you could tell, she looked at her friends or smiled or something. But by the ending, maybe just because she was so exhausted, I don’t know, but it’s a tough race, that distance, by the end she was determined. She looked straight
ahead of herself. Just kept a really steady pace, didn’t look at anyone. I don’t think she even heard her friends’ cheers anymore. She was somewhere else.

Participant D’s observations of this student suggest that he witnessed the student’s transition into what was possibly a flow state. Significantly, he notes that the student at first was paying attention to outside distractions (her friends, cheers) but then saw her essentially ignore these distractions. Although we cannot say concretely that the student was engaged in a flow state, Participant D’s detail of her ability to ignore distractions is consistent with Csikszentmihalyi’s conditions for flow, where “Effortless involvement that removes from awareness frustrations, etc.” Additionally, Participant D describes the student similarly to those in the literature who have observed young people in flow (Shernoff et al., 2003).

Where most participants at this time have described their state of concentration or flow using abstract terms, Participant E uses terminology that is more concrete. She likens her state to breathing and only being able to recognize this when she has finished the activity:

Participant E: It’s a really natural feeling, when I’m doing it right.

Researcher: Can you be more specific about that feeling? Can you describe it?

Participant E: When I’m in it, when I’m doing everything perfectly, it’s like breathing. I’m not aware of it. It’s only afterwards that I realize what’s happened. And afterwards it’s like, I did this, I feel good about that.

Her assertion that she’s “not aware of it” highlights a characteristic of the flow state. Feeling unaware of one’s surroundings has been noted several times with previous participants, but participant E also mentions what she feels occurs to her afterwards. Her assertion that she “feels good about it” expresses a sense of achievement and
confidence and this occurrence is also found in the literature where links between self
confidence and flow are examined, where “the self emerges strengthened from the
experience” (Wells, in Csikszentmihalyi, 1998, p. 327)

Lastly, Participant F recalls that when he is concentrating while playing a game,
he can easily forget how much time has passed, or that he is hungry. While
Csikszentmihalyi’s conditions for flow includes a sense of a loss of time, this detail
may not conclusively mean that he is experiencing a flow state. Although he does
maintain that he has accessed what he believes to be a flow-like state with other games,
he is certainly accessing an intensity of concentration that can occur while reading.
While he may not be reading from a physical book, he suggests that the experience is no
different with an RPG video game, except with a specific task. I ask him to describe the
kind of concentration he employs to play these video games:

Researcher: Can you describe the kind of concentration that you use to play
these games?

Participant F: Um, well, if I play Halo, or those new music flow games,
definitely I think I’ve accessed a sort of deep kind of concentration, what you
would say is like a meditation. But when I play the ones I play most often, it’s
not the same. I can forget how much time has gone by. Definitely. The time
one is pretty frequent actually. Hunger definitely stops being an issue, too. I
can get really steeped in it. And it’s just reading, reading, reading. It’s a lot of
reading.

Researcher: How is it that the games you play are different? In terms of
concentration and meditation?

Participant F: Games that I play don’t often have intense concentration, like,
for example Halo does. I’ve played Halo and yes it definitely requires a really
intense kind of concentration, but with the ones I play, they often have a goal,
to finish the game, (that’s step Z), but there’s A, B, C, etcetera. And you can
alter strategies based on how many points your winning or losing. Um, there’s
a sense of not intense mental activity focus, but there’s a goal to be
accomplished.
Here, participant F touches upon two major conditions for flow to occur. First, as stated above, his assertion that he senses a loss of time and hunger is consistent with flow experiences as expressed in the literature. Csikszentmihalyi’s conditions for flow include “a loss of sense of the duration of time” (Csikszentmihalyi, 2008). Secondly, he also mentions the importance of goal achievement, which is also a condition for flow. Csikszentmihalyi’s third condition for flow states “involvement in a task that has clear goals and provides immediate feedback” (Csikszentmihalyi, 2008).

While Participant F may be participating in an activity not typically associated with flow, his description of his state of concentration and the conditions required to engage in that state are consistent with the literature. The phenomenon of flow experience in video games is becoming more widely explored, (Chen, 2009; Grimley, 2011; Inal and Kursat, 2007) as video games become more sophisticated and attempt to reach wider demographics. Interactive games, which promote skills and relaxation, are becoming popular, not only implicitly (yoga for Wii) but also explicitly, most noticeably with Jenova Chen and Nicholas Clarks’ flow, an interactive game designed to encourage the experience of the flow state in the player, was released as a flash game which originally accompanied Chen’s masters thesis in 2006. Play Station 3 picked it up in 2007 after the free online Flash version received over 100,000 downloads. In flow, the player navigates a series of planes with an aquatic microorganism that evolves by consuming other microorganisms. The design is based on Chen’s research into Csikszentmihayi’s concept of flow and dynamic difficulty adjustment at the University of Southern California’s Interactive Media Division.
Chen’s newest game, *Flower*, an extension of *fLOw*, was named the “best independent game of 2009” at the Spike Video Game Awards.

Participants were able to describe in detail their experiences of states of deep concentration that occur when they are participating in their chosen activities. While their activities are very different from one another, the terminology used by participants consistently echoes similar sentiments regarding the experience of flow state.

**Metacognition: “knowing about knowing.”**

Learning through experience, where learning includes thinking and reflection about the task or activity, and metacognition share a number of characteristics, particularly if learning is considered a process. Where Kolb has developed a model that outlines four particular stages of the experiential learning process, Flavell’s classification of metacognition into four categories implies similarly, that learning as an activity requires an interaction with a number of stages or experiences of knowing. Flavell’s four categories are: metacognitive knowledge (eg. I cannot run as far as she can), metacognitive experience (eg. Learning how to run a greater distance is difficult and frustrating), metacognitive goals (eg. I am going to try to run a greater distance), and metacognitive strategies (eg. I am going to try to run an extra kilometer each time I run). These combined categories, then, can be considered as contributing to a process of learning that is holistic, as Flavell claims that “experiences, . . . informed and guided by pertinent metacognitive knowledge, instigate the metacognitive strategies of surveying all that you have learned to see if it fits together into a coherent whole” (Flavell, 1979, p. 909). Similarities between Flavell’s categories and Kolb’s experiential learning model exist if they are examined as a process. Kolb believes that
all four stages, (Concrete, Abstract, Experimental and Reflective) must be experienced in order for learning to be truly effective. Like Flavell’s categories of metacognition, in each stage, learners must employ a different set of learning strategies. Similarities are especially apparent among Kolb’s reflective stage and Flavell’s metacognition categories, as both imply a deliberate observation by the learner of the learner’s task.

Metacognitive abilities are also found among those who experience flow. Indeed, as one of the conditions for flow to occur is concentration, metacognition, the thinking about thinking, plays a central role in successful flow experiences. Additionally, successful flow experiences include ensuring on the learner’s part that tasks are neither too challenging nor too elementary. In this regard, the learner must consider their own abilities in relation to the task, (metacognitive knowledge) as well as strategies that will produce the most desired experience (metacognitive strategies).

I was eager to discuss how participants were able to maintain concentration or their flow state, and what strategies, if any, they employed to enter the state or remain in it. Their responses, despite the differences in their activities, are strikingly similar. All participants are able to describe a number of strategies and goals, which they maintain, are necessary for their overall experience. The participants’ uses of terms are not limited to a metacognitive analysis exclusively, as a terminology at times overlaps with Csikszentmihalyi’s conditions for flow.

Participant A describes how she prepares for her activity in order to receive the most benefits. Her preparation of her thoughts and what she hopes will result from the preparation are indicative of Flavell’s metacognitive strategy, where a cognitive or behavioural action is made to achieve a particular goal. In this instance, she is aware of
what she needs from herself to perform an activity where the desired goal is deep focus. She prepares herself by trying to calm her mind before entering the room:

Researcher: Do you find you need to prepare for this or can you access it upon beginning the activity?

Participant A: Certainly there is preparation before that is involved.

Researcher: Can you describe this? Why is it important?

Participant A: Well, you’re training yourself how to deal with your own thoughts. The intensity of the practice means you have to be focused on yourself in order to survive it. In the beginning, that’s hard to do, so you have to train yourself. And for me, that meant deciding that when I walked into that room, I was going to clear out what was going on with myself, and really just try to focus on the practice. There’s an aspect of preparation for it, yeah. If you really follow your own sort of conviction in this sense, there are enormous benefits, in my experience.

Participant A is able to describe the process she needs to undertake in order for her to achieve the desired goal she has set out for her. In this case, she has experienced the practice of this particular yogic discipline a number of times that she is able to determine and activate metacognitive strategies before she even walks into the room. In her consideration of what is necessary for the outcome, she relies on past experience to determine what changes or preparation must be made in order for her to achieve the desired outcome.

Where Participant A discusses the strategies she employs before she practices her activity, Participant B describes the metacognitive processes she engages during and after her activity. She describes an ongoing process of going into a state of deep concentration or “trance” and coming out of it in order to make corrections or to consider other options in order to create something she is satisfied with. She describes two kinds of focus: one of which involves the many considerations she needs to keep in
mind in order to create the desired outcome, and another kind, the kind that she refers to as the trance. Again, like participant A, the participant in this case employs metacognitive strategies in order to achieve her desired goal, where the strategy of determining colour choice or an artistic reference informs her desired outcome.

Researcher: How do you make sure that you maintain all the information you need to make a work? It involves so much material, colour choices. How do you say you manage attention and concentration?

Participant B: I’d say it’s like I’m in a trance.

Researcher: Can you describe what it’s like, what happens, when you’re in a “trance”?

Participant B: I’d say that once you get into this state or locked into it, you’re like woah, ok, this feels really powerful. I figured out how to do this slowly. Once I was in these focused states I was learning . . . what I’m capable of actually doing. This picture [gestures towards painting] went through so many layers of completeness. At first when you get stoked about something, you’re doing it, and then in order to change what you’re doing you break out of the trance. A lot of times there’s layers of doing things and you come in and out of being focused. If you’re working on something, the whole time you’re thinking: “oh I need this colour or I need this reference” but then you figure that out and you go back into the trance. And all these things inform you for when you approach it the next time. You’re not accomplishing anything. You’re letting yourself be more open to what you’re doing. And what you’ll be doing the next time.

Where participants A and B employ metacognitive strategies for the particular activity, participant C uses her activity (running) as a device to employ a number of strategies for a different task altogether. Participant C explains that running allows her time to “deal with things,” (Participant C, personal communication, February 4, 2011) so she uses her time to run as a way to plan out upcoming tasks regarding schoolwork and other responsibilities:

Researcher: How would you describe the thought processes that occur when you’re running?
Participant C: I often think of my run as my time to deal with things, so, if I have a crazy week coming up for example, um when I go for my run in the morning I know I can always map out my week or map out my day and I can figure out simple things like “oh when I get back I have to take test, or run this errand or this is tonight” or whatever it may be. And I guess that’s sort of short-term, day-to-day thinking. And yeah, this requires some real time to focus, I think. I need to be able to think clearly, um, to really concentrate, to do this kind of planning.

Participant C’s awareness that she needs to run in order to plan her tasks exhibits an application of three metacognitive categories. First, her knowledge that she can use her run to “deal with things” and her assertion that she “need[s] to be able to think clearly . . . to do this kind of planning” is evidence of metacognitive knowledge, where she uses what she knows about herself and the task before she even begins it. Secondly, her intent to use her run as a way to map out her day or week exhibits metacognitive goals, and finally, she exhibits the use of metacognitive strategies when she actively participates in the run in order to organize and map her plans and errands.

Although participant D cannot speak on behalf of his students’ own internal processing, what he does discuss is interesting, as he highlights a lack of what he believes to be metacognition among his students in the classroom.

Researcher: Do you think your students understand how to utilize metacognitive skills while they’re competing or practicing?

Participant D: I’m not sure if I can really say they employ it when they’re practicing or competing. Maybe some, but I can’t really speak for them. I really hope they are, cause I think that’s a great skill. They don’t always do this sort of thing in say, reading. You know where they say “how do you spell this” or especially in mathematics. They might know what 2X2 is, but they don’t know why. They have no idea why. But that’s another story altogether.
His assertion of a lack of evidence of metacognitive skills among his students in the classroom is certainly reason to consider the possibility of a transfer of metacognitive skills from a physical activity to other tasks. This will be discussed in the next section.

Lastly, participants E and F both discuss the importance of goals with their chosen activities, and how setting boundaries and limits regulate their success in their activities. They also mention the importance of feedback and its importance in terms of how it allows for an interpretation of their performance, exhibiting evidence of metacognitive strategies as well as elements of Csikszentmihalyi’s conditions for flow, where involvement in a task has clear goals and provides immediate feedback (Csikszentmihalyi, 1992).

Participant E tells me about how performing improvised music is analogous to attempting a challenging activity with which she is unfamiliar. This anxiety, however, is something she gravitates towards with a number of activities. One of her hobbies is rock climbing, while one of her fears is of heights. And she feels that this is an ideal arrangement for her, because in this state she is provided with rich feedback. I ask her why she is particularly attractive to situations such as these and how that relates to feedback:

**Researcher:** Why do you suppose you’re attracted to scary situations like these? Do you think that particular situation is more helpful?

**Participant E:** I like having a relationship where I’m forced to go into a zone that is outside of my comfort range. When you do something you’re not really sure about, or especially something you’re sure is going to cause anxiety, and you do it and you um, finish it or accomplish it, even if it’s a tiny little bit, it’s like a self validation for me. That kind of feedback like: “ok, this sucks right now, but it’s within my means” is really good for confidence. And then you’ll do it again next time knowing this.
Clearly, participant E’s description illustrates a relationship with metacognition that relates directly to self-confidence, rather than the completion of a number of tangible tasks, like participants A, B and C. Her awareness that placing herself into a particular position or environment will produce a desired effect but more significantly that this situation must be challenging and even cause some anxiety is certainly evidence of metacognitive strategies used to develop confidence. Her assertion echoes Kolb’s concerning metacognition and learning, - a key aspect of metacognitive knowledge is a person’s beliefs about him or herself, particularly his or her views about his or her ability to learn (Kolb et al, 2009).

Similarly, participant F describes the importance of goals to the overall attractiveness of the activity while the games he plays rely on strategy. The games encourage the employment of strategy, which, as he describes, is also a contributing factor:

   Researcher:  What is the most attractive thing about these games?

   Participant F: Well, one of the things I really like about these video games is their goal orientativeness. And collecting points and figuring out how you can get to point C from point B, that’s all strategy to reach those goals. So, you’re constantly trying to assess situations, make judgments about characters, like things they say and do, um and it’s all part of this really complex storyline, so there’s a lot of thinking, like, unilaterally I guess you’d say, about how best to navigate all of this.

The video games explicitly require him to navigate ways to interact most successfully with the storyline, characters and final goals of the game. Certainly, metacognitive strategies are encouraged in these kinds of games.
Reflections on theme II.

The participants were able to discuss how an analysis of their actions and reactions to their chosen activities help them engage in their activity more meaningfully and finally how their learning is enhanced by these methods. Although the activities range from distance running to music making to video game playing, the processes by which participants increase their overall enjoyment and understanding can be regarded as stemming from methods characterized by processes of metacognition. Specifically, participants are able to describe the use of metacognitive knowledge and definitive metacognitive strategies in order for them to achieve desired learning states. This illustrates that metacognition is integral to successful experiential learning processes as well as to flow experiences. Regarding experiential learning, metacognitive strategies play a role in Kolb’s learning cycle. Where concrete experience provides the basis for observation and reflection and is tested in new experiences, metacognitive strategies are used to test new experiences. Both assume the same goal of developing greater learning capacities. Likewise, regarding flow, metacognitive strategies play a similar role. While flow learners attempt to ensure that they are operating at their own personal desired balance between anxiety and boredom, they require the use of metacognitive strategies in order for this to occur.

Theme III: How to Be Alone

When you work alone, you are only left with what you’re capable of doing:
Participants Explain the Importance of Solitude

Introduction.

The following section discusses how participants value solitude as a tool for their learning process. While they often use the word “alone,” participants are able to
discern between solitude and loneliness, and many participants maintain that they find being alone helps them to better engage with others around them. Participants seem to understand being “alone” as a positive experience. Where solitude is a choice, a quality of being alone, loneliness is a negative state of being alone. Thus, participants use the terms “alone” and “solitude” interchangeably.

Despite the overwhelming amount of innovation in the ubiquitous social devices that allow us to stay connected with one another (Skype, Facebook, Twitter, Foursquare), a growing interest in solitude is beginning to produce a considerable amount of literature regarding the value of solitude and the benefits it has on social lives, relationships and processes of learning. The value of solitude as regarded throughout different cultural histories is indicative of its importance. Religions, philosophies, pedagogical and social theories (Buddhism, Montessori, Waldorf, Krishnamurti) have been established by those who believe in the benefits of solitude both for the individual and society. However, despite these understandings, contemporary culture, including schooling, continually places solitude in the realm of disengagement, loneliness and discipline while ignoring its now needed more than ever benefits.

The importance of solitude has been exhibited throughout many cultures throughout their histories. Meditations on the importance of solitude have highlighted numerous paintings and stories such as Jesus’ own forty-day period of isolation and Jonah’s revelations about his society following his time deep inside the dark whale. This sentiment is not restricted to western culture, of course. The Buddha’s time where he sat for forty-nine days alone until he achieved enlightenment and Mohammed’s first
revelation with Gabriel after meditating in solitude at Mount Medina tell us that solitude is a concept that is deeply woven throughout humanity’s shared history. The importance of solitude has also played a part regarding significant thinkers and artists. The 16th century socialite Michel de Montaigne shut himself away in his private library for a ten-year period of grief and thinking, and emerged with a piece of writing that is considered the first example of the essay format. And yet more modern examples exist; Jack Kerouac, David Thoreau, and Virginia Woolf and May Sarton all famously pursued periods of intense solitude.

The discomfort and uneasiness with which modern society, students and educators are confronted is indicative of broader social attitudes about solitude and silence. Being alone is often equated with loneliness, depression and discipline, especially in schools. For example, students are often sent to be alone, away from the group as a form of punishment. Modern technology has also undoubtedly aided our desire to never be alone. One can skim the news websites, check email, update a twitter account, visit with friends on Facebook and send a text message all in the time it takes to finish a morning coffee. While at one’s seat one can skim or buy nearly any book, see nearly any film, download any song and meet any number of singles in a given city and even within a 100 meter radius. The ability to be contacted at any time of day has become commonplace; wifi is even available on trains, planes and most public spaces. Most spaces now allow us to remain connected at all times.

What is the effect of so many distractions on our internal world? Christine Rosen recently warns in her New York Times Magazine article that “Having our every whim satisfied at the touch of a button might encourage a childish expectation of instant
gratification and could breed intolerance for the kinds of music, film and literature that require patience to enjoy fully” (Rosen, 2005, p. 2). Distractions, even the most seemingly frivolous and easily manageable such as Facebook, a common sight among many university lecture goers, considerably diminish one’s ability to think well. A recent cognitive science study at Stanford University found that college students who multitask more often were unable to concentrate as well as students who spent less time multitasking (Ophir, 2009).

However recent innovations in technology and public spaces are exploring the concept of limiting our distractions, such as the M-player, a cell phone and music-playing device where the primary function is a music player so that while listening to music, incoming calls and messages do not interfere. Downloadable programs like Freedom allow one to turn off internet capabilities on one’s computer for a chosen amount of time to ensure productivity and “free [users] from distractions” (Freedom). Toronto’s Snakes and Lattés, a new café in the city’s west end, actively discourages the use of laptops or computer devices of any kind and instead carries over 1500 board games to encourage communication and recreation among patrons. Even the art world is exploring the effects of our need for distraction with Sarah Pennington’s Phone You Can’t Pick Up (Figure 3) a cell phone with a screen that reads “1 missed call” but the only functions visible on the phone is its set of numbers, thereby rendering the phone useless, as there is no way to attend to the message. The lack of a “call” button or an “unlock” button attempts to act as a trigger of anxiety in the viewer in their irritability in being unable to check for a message even while the phone does not belong to the viewer.
Figure 3. Sarah Pennington’s *Phone You Can’t Pick Up*. With no “unlock” or “call” button, the phone offers no function to check a missed call or to pick it up while it is ringing. Eventually the constant ringing forces the listener to pay attention to the experience of listening to the sound of the ring rather than worrying about who is on the other end. Retrieved from http://www.cs.nott.ac.uk/~tar/conference/medialayer.pdf
Despite these new ideas that explore alternatives to consistent and constant distractions, resistance continues. So much so that when William Dersewicz posed to his undergraduate students the “importance that solitude has in their lives,” one answered, “Why would anyone want to be alone?” (Dersiewicz, 2009).

If we choose to be alone, is it still called lonely? Larson claims that “solitude is the objective condition of being alone - defined by communicative separation from others. Loneliness and privacy, by contrast, are subjective conditions, which may or may not co-occur with being alone” (Larson, 1990, p. 157). The participants in this study remark that their time alone with their own thoughts is extremely important to them. They value time alone, what some participants call solitude, as an opportunity to learn more about themselves and those around them and express that a feeling of being alone is a positive experience that is needed to enjoy their chosen activities. Additionally, participants describe an ability to learn more deeply about themselves and this occurs as a result of choosing an environment where they can be alone, where they can concentrate with few distractions.

**Results.**

Participant A discusses how solitude is necessary to her practice, although she is in a room with sometimes up to thirty other people. She discusses this need for solitude as a way to “train” her mind. This training is about how to be aware of “thoughts, feelings” and how to stay “present.” She feels that this is important because it helps her to be aware of her own internal world and her interactions with others in her own life. I ask her why she feels it is important to her to experience solitude:
Researcher: Is being alone something that is important to you?

Participant A: Absolutely, yes. So important.

Researcher: Why is this important?

Participant A: ‘Cause it’s your mind you’re trying to train. It’s not someone else’s. So I think you do need to be in solitude, just alone with your own thoughts, feelings and demons. You’re not training yourself to be in connection with other people, you’re training yourself just to be present with yourself. And so I think um ultimately that we are alone. I mean it’s not that we don’t have contact with other people but our experience of life is through our own awareness our own perceptions. And you have to be alone to do that, you have to experience what it means to be alone to understand those things, I think. And this practice I think really helps me feel that.

Clearly, Participant A is able to connect the necessity of being alone to a more precise understanding of herself, which she feels occurs through her yoga practice. Her assertion that time alone through her activity allows her to be in connection with herself is similar to literature describing the benefits of the solo wilderness experience, where participants spend up to two days alone. The results of a study by Brad Daniel showed that “solo offered mental, physical, emotional and spiritual challenges, and it allowed opportunity for reflection, introspection, and contemplation in solitude and silence” (Daniel, 2005, p. 100). This understanding is a way to experience her world more meaningfully, which she feels would not be possible if she were not comfortable spending time alone. Participant B similarly expresses that being alone helps not only in her understanding of herself, but also about the world around her. Being alone is not only necessary to her own wellbeing, but it also helps her to engage more meaningfully with relationships and people around her. I ask her how much importance solitude has in her practice and her life:

Researcher: How important is solitude to your practice and your life?
Participant B: One hundred percent that’s how important. I feel more like me when I’m alone. I think it’s a really cool thing that once you learn how to be alone and once you learn how to function and be rich while you’re on your own then you can almost have deeper relationships with things or ideas or people because you’ve fed yourself in a sense. Too much time with other people makes me feel sick like too much candy. I love people, I love to be gregarious and social, but I can’t do that without time alone.

When I ask her what role solitude has in her working, artistic life, she explains an awareness of what solitude can offer her; she asserts that when she works alone she is “only left with what [she’s] capable of doing” and that she can have “deeper relationships with things or ideas or people” (Participant B, personal communication, February 4, 2011). In other words, this participant is able to express an awareness of a personal ability that is revealed to herself when she is alone. Knapp (2005) elaborates on a study by Bobilya, McAvoy and Kalisch concerning participant perceptions of a multi-day wilderness solo found similar results, which indicated that following their solo experience, participants “developed an increased awareness of themselves and how they interact with others” (Bobilya, McAvoy & Kalisch in Knapp, 2005 p. 107). These sentiments reveal a connection between an aptitude for solitude and greater social awareness.

Participant B understands for herself how important solitude is for her work, however she is also aware of how she may be perceived negatively by others, by explaining that she can sometimes seem “deeply removed.”

Researcher: How specifically does solitude help you work?

Participant B: Well, when you work alone, you are only left with what you’re capable of doing, with how you process information. To step back and be a bit removed from it, but also be working with all this information, you’re not actively engaging with everything that’s going on, you’re taking it in. It’s not
exactly cold, but sometimes it can be. Sometimes being deeply emotional can seem like being deeply removed.

Participant B makes this comment casually, as though it is an accepted and understood part of her social life. Her desire for time alone does not seem to be compromised by how she may be perceived by others.

Participant C discusses her relationship with silence and solitude and how her activity helps her to experience silence and the benefits it offers her. She uses words like “deeply process” and “clearness” (Participant C, personal communication, February 2, 2011) to describe the activities or states that come from the practice of an activity in solitude. Most importantly, she describes the value of running as a place “where you can think,” (Participant C) which implies that, like other participants discussed at this point, the experience of solitude holds benefits outside of the activity itself.

Researcher: You mentioned silence earlier. Can you talk about that?

Participant C: I really have a huge appreciation for silence. And you don’t really get silence anywhere in your life, in your day to day. And not that it’s silent when you run, I don’t usually run with music it depends, sometimes I do but I guess just it’s that clearness to think cause when you’re always surrounded by so many things happening and music here and people talking there and you know constantly go go go you, you think, but you don’t have time to deeply process and think about things. And just having that silence and solitude when you’re running, I guess it adds to the atmosphere, the ability to be in a place where you can think.

Researcher: So running then obviously isn’t just about staying fit? There’s something else that the solitude of running provides you with?

Participant C: Absolutely. When I tell people that I’m a runner and they’re like: “oh yeah?” and they ask me about it and then they say: “oh you’re crazy! You run that much that often?” But it’s no longer the exercise like: “oh I need the exercise.” It’s the mental part and the alone time, that whole side of things.
Obviously, Participant C uses her time running as an opportunity to be alone and this is a part of her activity that is deeply important to her. She is able to describe the benefits that the activity allows her by explaining the importance that silence and solitude play in her activity – it allows her a time to think. What is interesting about Participant C’s response here is her mentioning of sometimes running with music, but often without. Her admission that she does not usually run with music followed by an assertion that “silence and solitude . . . adds to the atmosphere, the ability to be in a place where you can think” (Participant C, personal communication, February 2, 2011) echoes recent findings where Hafner and George (2005) reported results of a study led by David Strayer, a professor of psychology, who studies the effects of sounds such as cell phone conversations and music players on attention levels during common tasks such as driving a car or even walking. What Strayer found was that participants will tune out important details regarding the task they are performing, such as moving out of the way of oncoming pedestrians if one is walking in public, if their auditory senses are being interfered with. He insists, “the main source of the interference is mental, cognitive. It turns out you’re tuning out some important details about driving” (Hafner & George, 2005). Participant C is able to recognize the value that silence and solitude have regarding her ability to think without interference.

While Participant C discusses her relationship with a solo athletic activity, Participant D discusses his opinion of the role he believes that solitude plays in his students in terms of team sports versus solo sports. He expresses his belief that students who practice in solo sports face different challenges than students who play team sports
because they are “forced to train alone” and therefore think about themselves only in relation to themselves. He believes this fosters self discipline:

Researcher: Do you think there’s a difference then, between the kind of processing needed in solo sports versus team sports?

Participant D: Oh definitely. You can’t blame other players, you can’t blame faulty equipment or whatever. It’s good to have to learn what happens to yourself alone.

Researcher: Why?

Participant D: Because I think there’s real value in solo sports. That would be an interesting study, observing students who do these kinds of sports like distance running, for example. I think that playing sports with a team, there’s a difference. But if you’re doing something where you’re forced to train alone often, I think that makes a big difference in terms of what you might find about yourself. You’re forced to challenge yourself by yourself. That’s tough. That’s real discipline. I think there’s something really valuable about that.

Participant D and E highlight a worthwhile conversation about solitude and personal benefits. Participant E discusses the benefits of playing and practicing music alone because it allows her to push herself on her own terms, which she relates to independence. In a way, Participant E echoes Participant D’s thought that training alone helps one discover more about oneself. Participant E explains that, for her, unlike the other participants, being alone is an avenue towards independence. Her assertion that the onus is completely on her is what relates the two experiences:

Researcher: How important is it for you that you are able to practice alone?

Participant: You mean like, no spouse, just me and the piano?

Researcher: Yes, just you. Is that important?

Participant E: Yeah absolutely. Being alone, doing this alone, that’s really important to me. That’s where you get independence. Ok that’s where I get it. That’s how I understand it. When I’m working alone, practicing, let’s say
there’s nobody but me to push me to get it right, to make it better. I don’t know if it’s because I’ve always been that kind of person, but I can’t see how you could seriously get better at something like playing music without understanding that you need to be comfortable with spending a lot of time alone, with yourself.

Furthermore, she explains that she cannot understand how one would be able to improve on a kind of activity like playing music if they did not spend time alone. She claims that one must be comfortable with spending time alone in order to begin a relationship with something like learning how to play an instrument.

The idea that confidence in one’s abilities as a result of spending time alone is consistent with the literature regarding studies in solitude, most particularly with those who participate in an outdoor education program which includes a solo trip. Knapp (2005) elaborates on a study by William Quinn. Quinn’s *Solo’s Effect on Group Attitude* describes the mood of a group he takes out for their trip as collectively anxious. After their experience alone however, he reports “everyone [was] feeling more positive, the personality of the group was transformed. Positive feelings about personal successes were predominant” (Quinn in Knapp, et al., 2005 p. 196). In another study upon which Knapp reports exploring the effects of the solo camping trip, one participant reflected after their solo that “The solo days were days that allowed me the space, focus, and clarity of mind to think about my future, what I wanted out of my life” (Daniel, in Knapp et al., 2005 p. 97).

Finally, Participant F describes his preference for solitude and his activity as a way to focus and enjoy the activity. His preference for single player games rather than multiplayer ones further reinforces this attraction to solitude. Additionally, his comparison of reading a book to playing a video game further encourages the idea that
reading and playing video games share strong connections in terms of concentration and an ability to focus.

Researcher: Do you ever play video games with other people?

Participant F: I prefer to play video games alone, rather than like, an arcade. Well, they’re disappearing, but um, I prefer single player games over multiplayer ones. There are lots of multiplayer games, but yeah for me it’s definitely almost always alone. So I guess it’s just kind of like reading a book. You can’t read a book in a noisy room. Or I can’t really. It’s easier to concentrate, and get more out of it, that’s for sure.

Participant F understands that by participating in his chosen activity he is able to experience solitude, which he understands to be necessary for his overall enjoyment and success with the activity. As Meijer states in her Sloth, Silence, and Concentration: The Reader Between Letter and Spirit: “Certainly, reading entails keeping one’s distance of the surrounding and often intrusive world. And yes, reading requires silence, solitude, and concentration that enables one to participate in another world” (Meijer, 2009). Here, Meijer echoes the sentiment that Participant F makes that the value that solitude has on the process of reading. He relates the two activities as reading experiences that require time alone in silence and with limited distraction so that he is able to experience the most from his activity without distractions.

**Reflections on theme III.**

The participants were able to express the importance of solitude in their chosen activities despite the fact that their activities show a range of diverse interests. What they certainly share is an attraction to and an awareness of how solitude benefits their lives as a result of a participation in their chosen activities. A common thread they share among their descriptions of their experiences is that solitude provides them with a
feeling of confidence and clarity in determining their needs as learners. They are able to manage the conditions for and express the reasons why spending time alone in solitude offers the most ideal environment for their learning goals.

**Conclusion**

The three themes discussed in this chapter explore how the physical aspect of experiential activities, the flow state, and solitude all contribute to enhance processes of learning. Connections may be seen first among experiential activities, where many participants found that the physical aspect of their activities to their learning process was important. Participants also reported the reflective aspect of their activities as important to their learning and performance as well, as this aspect allowed for the opportunity to consider how they could think about, make sense of and improve their learning outcomes. Reflective experiences have direct connections to concentration. Participants describe the state of concentration as something that is extremely important to their learning process, as many participants describe specific conditions that are needed in order for their desired state of learning and experience to occur, namely the importance of goal setting, and limits. Concentration then, shares a relationship with metacognition, where participants were able to describe the methods they use to think about, moderate and navigate their individual learning processes.

Concentration also shares a relationship with solitude, which all participants agree plays an important role in their lives. Participants remark that they enjoy spending time alone and that they view solitude as a positive aspect of their lives, but also as crucial to their learning outcomes, namely in their ability to concentrate and focus.
Chapter Five: Conclusion

Throughout this study, I was interested in discussing individuals’ awareness of how concepts related to physical experience, flow, and solitude affect them as learners. I was especially curious to know if they were able to express the importance these activities have in their lives, and if they were also able to express how they directly experience and if possible learn from and through these experiences. Additionally, I was interested in how through an understanding of the participants’ experiences, I would be able to apply my knowledge as an educator both in my practice and my philosophy. After numerous reviews of the transcripts, three major themes emerged regarding the experiences of participants: how participants describe the value of participating directly in their physical, chosen activity, how participants describe the state of concentration and focus that occurs in each chosen activity, and how participants describe the value that solitude plays in their activities. In each theme that was explored, I noticed that there was clearly an element of learning that occurred for the participants.

With regard to theme I: *It had to be manifested physically in order for me to really notice the difference*: Participants explain the importance of their chosen experiential physical activity to their learning process, participants were able to discuss how an experiential learning process in a physical activity benefits them as learners. Citing the opportunity to directly engage in a physical task, participants described the value of learning from direct experience. Some also expressed the value of the reflective process of learning regarding their chosen activities. Responses from participants
described a range of the kinds of learning insights that result from a direct experience with a physical activity. While some participants maintained that they developed a fuller understanding of the activity itself, others claimed that they found value in making deeper connections within themselves and their own engagements with their bodies. Some participants advocated that this kind of engagement helped them to develop greater concentration and focus, which they recognized helped them in future experiences with the activity. Others recognized the connections that were made to their overall learning processes, specifically relating the physical experience to other learning goals and outcomes.

The direct experience in a physical activity also provides an opportunity for reflection in which many participants engage. Participants explain the value that this stage has to their overall learning experience, illustrating that the reflective stage allows for stronger connections to be made in the learning process. Participants assert that reflection in some cases reinforces their learning goals and deepens their understanding. In some cases, the reflective process allows for an opportunity to repeat and extend their understanding of the learning process.

According to participants, the value of experiencing a physical activity allows them to develop connections between their understandings of their own learning processes. The reflective stage built into experiences alone or in solitude develops a practice of reflection, illustrating that a concrete experience in addition to a reflective experience contributes significantly to learning outcomes and goals.

Concerning theme II: *When I’m in it, when I’m doing everything perfectly, it’s like breathing. I’m not aware of it:* Participants describe their experience as a meditative
state, where participants describe their experience of a concentrated state or “zone.” They also describe how they are able to learn about how to improve their experience and apply strategies to undertake their activity in order to better suit their needs. This theme showed that not only do these activities help promote valued levels of concentration and focus in participants, but participants also demonstrated signs of metacognitive knowledge in their descriptions of the strategies in which they engage, to ensure their desired outcomes.

Responses from participants regarding their experiences describe states of extreme focus and concentration which reflect those from participants in flow studies. Participants’ responses, which include terms such as “trance,” “flow,” and “zone” also describe how these states are highly sought, enjoyable and insightful to learning. As a result, participants describe strategies that they employ in order to achieve these states consistently.

The ability of participants to determine the avenues to take in order to achieve specific learning outcomes shows evidence of the use of metacognitive knowledge. Participants reported that they were better able to engage in desired learning outcomes if they utilized specialized and personal learning strategies. Strategies were grouped accordingly to Flavell’s categories of metacognitive knowledge, and participants’ descriptions of their own strategies exhibited similarities in metacognitive goals and strategies. The participants’ use of metacognitive knowledge to ensure their own personal learning goals illustrates the value that learning through flow-based activity holds with regard to learners’ ability to assess and regulate their own paths of knowledge and understanding.
Regarding Theme III: *When you work alone, you are only left with what you’re capable of doing:* Participants explain the importance of solitude, participants described the importance that solitude has in their lives, and how their chosen activities allow them this time and space to explore this necessity. Participants describe the value of solitude in a number of different ways, however all participants are able to express how the particular experience of solitude provides them with avenues for learning about themselves and their internal world, about connections with other people, for recognizing their own processes of thinking, and for solving the problems they are contemplating. Participants’ descriptions reveal a value of solitude that illustrates an awareness of learning abilities and outcomes. Some participants describe their time in solitude as a way to form deeper connections with themselves, which they find helps them connect with others. Other participants recognize a greater confidence in themselves and their abilities as a result of spending time alone. Participants also share an understanding that the value of time alone benefits their ability to concentrate. Certainly, all participants expressed the value they place in solitude as something that informs their own learning and understanding.

Discussions among participants illustrates that the three themes explored share opportunities for learning development. These three themes are not only connected by the participants’ expressed value of the learning processes that occur among the themes, but these themes also share common values that are specific to each one. Where both experiential learning activities and flow-based activities value the cognitive processes that accompany a physical activity, (reflection, concentration and metacognition) they also find common ground in their value of solitude as it relates to learning processes.
This is seen in the reflective aspect of experiential learning, and one of the conditions for flow, concentration, which also requires solitude.

**Transfer of Learning**

What is common throughout these themes is a transfer of learning that begins with the activity and is carried to other aspects of participants’ lives. When I asked participants if they felt that what they learn throughout the process of their activity was transferable to other aspects of their lives, they all agreed, and were able to provide numerous examples that point to learner autonomy. In other words, participants showed an ability to exercise a capacity to think for themselves; “the ability to take charge of one’s own learning” (Holec, 1981). This common thread among participants reveals that the skills learned in these activities have value in alternative learning situations as well, which may illustrate avenues towards learner autonomy, as participants are able to direct their own learning towards alternative tasks and situations.

Participant A insists that what she has learned in her practice is transferable to other areas of her life. She is able to access specific skills that she learns from her practice and apply them to situations outside of the yoga room. Specifically, she maintains that an ability to remain calm in times of frustration is a skill she has learned “on the mat” and one which she is able to apply to her life:

Researcher: Do you think you are able to use what you learn on the mat [in the yoga room] and apply it to other situations?

Participant A: Once you get it on the mat you can take it anywhere. And certainly what you’re doing in yoga is you’re training your mind to attend in a specific way. Once you learn that, you do transfer that to your interactions with other people but also [to] how you live, how you eat, how you walk, how you listen to other people. I can catch myself feeling irritated and I can
shift it. There are times when I feel provoked or irritated or frustrated, but
when I do catch it, I can let it go. I can decide not to be pissed off anymore.

Although she practices yoga for a number of reasons, the practice also affords her an
opportunity to utilize what she gains from the practice to other areas of her life. The
transfer of learning that occurs is one of maintaining calm and stress.

Participant B also finds that the learning experience in which she engages during
her activity is transferable. Whether she is in the studio painting or writing a song, she
is spending time and energy learning about herself. She maintains that she takes this
outside of the studio, where she can use these understandings as a better way to
understand herself and those around her.

Researcher: How does learning about yourself help you outside of your art
practice?

Participant B: I think that expanding on your own experience and your own
capabilities is like the foremost of what I’m interested in spending my time and
energy and innate human ability on. Being alone, writing, painting, sculpting,
working, it opens up different ways of creating or communicating, or inspiring
other people. What I learn about myself while I’m working, I take that with me
outside of the studio, and that’s a better understanding of myself, of humans.
That’s important to me.

Like Participants A and B, Participant C describes what she feels is transferable
as a deep, personal understanding of herself. However, she also describes tangible
effects of her running and how they relate to her world outside of this activity. I ask her
about whether she believes that what she learns in running is transferable to other
aspects of her life and she agrees that it is. She describes it as confidence that is
developed as a result of the challenge of a run. She is able to utilize what she learns
about herself while running, a dedication and discipline of the sport, and apply it to her
school life like her exams or assignments:
Researcher: Have you ever found yourself using things that you have learned in running outside of running?

Participant C: You mean like can I transfer it?

Researcher: Yeah.

Participant C: Absolutely. I like to think that I transfer it all the time. Again, going back to that when I’m not sure about something or worried about something or I don’t think I can achieve something, I always go back to running and say: “yeah but you know that run was really hard but you did it anyway so you know yeah school might be really hard, or this exam is really hard but you’ll pull through.” I guess my big thing is always “you’ll pull through” and I guess it’s kinda been from running cause you know you get in some runs and you just pull through you just finish and its the same things with eventually an exam or you have a bad week coming up it’s just: “you’ll pull through.” You can always go farther and do more than you think you can do.

As mentioned above, what she learns and is able to use in her life outside of running is not restricted to emotional gains. Participant C also describes how the mind maps that she develops mentally while she runs are also used in the same way during exams or assignments. She is able to access the skill of mentally breaking down information to organize clearly which began to occur while she ran, and utilize it for purposes outside of running:

Researcher: You mentioned earlier that you were able to develop mind maps as a result of running. Can you describe that process?

Participant C: I guess when I run I end up breaking things down into um often I guess mental lists and mental maps. And that transfers directly to paper. It’s not always like that when I run, but sometimes. And so when I am for that matter mentally mapping out an essay, like this mind map it’s like, here’s this big picture and here’s these little chunks of things that I think about that come off of it. And now it’s kind of gone full circle in that that’s how I study. I study with mind maps because I’ve realized that’s how I think because when I’m running, I’ve kind of made the connection: “Oh yeah that’s how I think and now if I study like that then it’ll go back hopefully to thinking like that when I’m in the exam.”
Participant C is outlining metacognitive strategies and autonomous learning practices in her explanation of how she is able to apply what she has learned in one activity to another. This is especially apparent when she states that because of an understanding of the way she thinks, she is able to use that understanding to create a study aid that is specific to her learning style. Certainly, distance running has allowed her to access knowledge of her own mental processes and apply it to alternate tasks.

Participant D discusses the observations he has made regarding a transfer of learning among the students he helps coach. He believes that what they have “learned on the field” is “transferred” (Participant D, personal communication, February 4, 2011) to the classroom, and he believes that this is because the skills it takes to succeed on the field are similar to the ones required for skills in the classroom, like reading. He mentions that he sees this particularly among his male students, and explains that he is able to see a difference in the classroom after working with these students on the “field.”

Researcher: Can you notice a difference in class, then?

Participant D: Oh absolutely, yeah.

Researcher: So do you think these skills may be transferable, then?

Participant D: I definitely think it’s transferable. I see it in the classroom, when we’re off the field. And it doesn’t happen with every kid, but definitely there’s something there that they’ve learned on the field that’s transferred. I think it’s confidence. When, and mostly I’m talking about boys here, when they are encouraged when they’ve been running, for example, like we’ve just done a sprint training, and this is solo, after lunch they have to come in and do some reading work or math. Some of those boys who I’ve pushed and encouraged, I don’t need to do it so much with them with the math and the reading, cause they’re trying on their own. I think that by having them do something difficult, something physical, and then pairing that with feedback, whether that’s me telling them they did well, what they need to improve on, or with something like
a personal best time, I think that transfers. They can begin to see this place [school] as a place where they can do things they’re good at. It’s not all bad here. And that determination it takes to do well on the field is the exact kind of determination it takes to read a chapter quietly in a room. So yeah I most definitely see it as a transferable skill.

Participant D uses the phrase “trying on their own” which suggests that these particular students are accessing skills they have learned on the field, specifically discipline, concentration and focus and applying them to classroom tasks. While he maintains that he feels that his own provision of feedback also helps in this process, the fact that he describes the “determination” (Participant D) required to read a chapter from a book is both similar to and transferable from succeeding at a physical activity outdoors shows that he observes students who are able to address the challenges needed with the skills they have learned from these activities.

Like many participants, Participant E also describes a transfer of learning that occurs as a result of playing live, improvised music, which she links with confidence. She explains that the nature of playing this kind of music forces her to accept the possibility of failure, and that this understanding has developed a confidence in her abilities:

Researcher: Do you think you can apply what you learn playing music to other aspects of your life?

Participant E: Yes. My whole philosophy of life is about being OK with failure or stopping something to do something else. That comes from a kind of confidence, I think, and that has certainly come from playing music. Especially the kind of music I play; it’s live, it’s improvised. If you make a mistake, you move on. And because this activity forces me to react in that way, it shows up when I’m not on a stage. It happens in my personal life, my relationships, how I conduct myself with others, how I understand myself. It’s so valuable.
The transfer of confidence occurs in many other aspects of her life outside of music, exhibiting that the kind of learning that occurs as a result of this activity results in a transfer of a skill that can be used for tasks outside of the activity.

The skills that participants learn and practice in their chosen activities are used and valued in other aspects of their lives. Participants are able to discuss the ways in which they monitor their own learning processes for specific, desired outcomes. Certainly, participants are describing the ability to exercise learner autonomy.

**Learner autonomy**

If the ideal of education is to learn how to learn, then it seems that the practice of activities which require a physical experience as well as that require an intent focus combined with an environment of solitude foster this ideal. The major themes that were categorized according to participants’ responses share the common perception among participants that a specific kind of learning develops in each explored theme that benefits them elsewhere in life. Participants were able to describe how they find themselves as active participants in their learning process and they were also able to describe the methods and strategies used in order to foster specific learning conditions. This kind of participation in the learning process shows that these activities foster learner autonomy. While these findings show the importance of these activities with regards to the learning process, the conditions under which these processes may materialize sometimes do not occur. Furthermore, while the work of teachers is in achieving such learning spaces, school space, time, curriculum and routine often work against what teachers know to be the best conditions for learning.
As a term, learner autonomy carries a number of definitions and synonyms -
“independence” (Robson and Bonnici, 2005/2006), “self-regulation” (Kitsantas and
Zimmerman, 2006), “self-regulated learning” (Pieschl et al., 2008) - which illustrates
the importance of this concept in the education field. The terms range between two
concepts of knowledge: that knowledge is socially constructed and that knowledge is
consistently being controlled and mediated through forms of power and ideology.
Little's assertion that learner autonomy is “essentially a matter of the learner's
psychological relation to the process and content of learning - a capacity for
detachment, critical reflection, decision-making, and independent action” (Little, 2000
p. 70) reveals an interaction between these two concepts of knowledge. This definition
illustrates the “knowing how” and the “knowing that” of thinking and learning (Quicke,
1994). For example, a student may be able to speak grammatically correctly and be
unable to articulate the rules of grammar. When learners know “that” and “how,” they
are engaging in a process of learning that is both socially constructed and that requires
critical engagement. Participants revealed that they were able to consider both methods
of engagement with their learning process in their ability to reflect on their learning
process (theme I), their use of metacognitive knowledge and strategies regarding flow,
(theme II), and their understanding of their development of their own needs as learners,
most especially with regards to solitude (theme III).

Despite their commitments, the institutional structures of the conventional
education system shape significant barriers towards fostering and promoting learner
autonomy. Assumptions about how schools should function and how students should
learn, both among teachers and students, significantly affect the livelihood of both
students and teachers. The long held belief that learning equals the transmission of
information of holders of knowledge (teachers) to the empty vessels (students) is
propagated by large classrooms and conventional forms of the framing and practice of
discipline (Friere, 1970). However, the world outside of the classroom could not seem
more different. Despite the expertise of thinkers in technology and education, we
cannot adequately predict what the world will look like in 5 years’ time (Ted: Ideas,
2006). If the information that students need to know cannot be predicted, the structures
that shape education and learning would do best to seriously consider the ways in which
students may be prepared to most successfully navigate a quickly changing world,
where students are capable of effectively adapting and altering their thinking and skills
towards new problems and challenges; where students become life-long learners. The
development of learner autonomy is one way this may be achieved.

**Study Limitations and Future Research Implications**

Prior to discussing research implications, it is important to acknowledge the
limitations of the current study. This study was conducted with adults. Although the
information is rich, providing numerous details about thought patterns and processes,
the study is unable to clarify if educational structures are similar in children or
teenagers, the majority of participants in schooling systems. Furthermore, the study did
not include a variety of voices, including disenfranchised, minority youth and adults.

If indeed the results of the study reveal a path towards greater focus and
awareness, these findings could be used for practical exercises for students with a need
for focus and concentration, specifically students who identify as ADHD, Autistic or
Aspergers. Current studies are beginning to show that students with these conditions
benefit greatly from repetitive, physical activities like distance running, (Hammer, 2011). A Calgary school with a curriculum based on movement and exercise for students on the Aspergers, ADHD and Autism spectrum show that these students excel greatly in these activities as they inhibit visual and auditory distractions, which trigger inconsistencies in concentration (Shanker, 2010). As these students are most powerless in current school culture, these implications should not be ignored.

**Recommendations**

Upon completing this research, recommendations for school settings to include access to physical exercise programs that ensure individual exercise is strongly promoted. Numerous current physical education programs are limited to team sports such as baseball where students spend the majority of the period sitting or standing. A vigorous physical education program that stresses individual, solo sport is a better option. Additionally, schools should not ignore the importance of the resources, coaches and energy needed to maintain athletic clubs and teams to further promote the physical aspect of learning among students. Finally, students should be provided with opportunities to spend time alone to solve problems, school-related, academic, and personal. Allowing students an opportunity, more importantly the choice, to work out problems on their own, will ensure students will choose to rely on themselves, and force them to uncover their strengths through discovery of their own accord. All students should be able to discern the difference between loneliness and solitude, dependent and independent; this is understood through a choice that is offered to them so that they may exercise the freedom to navigate their own learning landscapes.
Works Cited


Active Learning in Higher Education. 12(1) 45-56.


Appendix A

Letter of Information/ Consent Form

**Project title:** How to be alone: An exploration of flow theory and its connections to processes of learning

**Researcher:** Amanda Balsys, Queen’s University

This study was granted clearance by the General Research Ethics Board for compliance with the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans, and Queen’s policies.

**Purpose:**

Psychologist Mihaly Csikszentmihalyi describes the concept of flow as being “intensely involved in a meaningful activity [where one is] able to remain focused for the length of time needed to achieve a deeply valued goal.” While a considerable amount of research in flow theory has gravitated towards anthropology, psychology and sociology, there is potential for this theory to be studied with regards to education and learning.

The goal of this study is to gain a better understanding of how participants value the kind of learning that takes place during activities that require a deep level of concentration.

You are invited to participate in an open-ended interview where you will be asked to describe the activities you engage in and how practicing these activities affects you as a learner. Your signature below indicates that you understand and consent to what is expected of you.

The interview should take no longer than 60 minutes and you will be notified of a follow-up interview (45 minutes maximum) roughly thirty days following the initial interview date. (Total time: 105 minutes). You are welcome to suggest dates that work best for you for both interviews. The interviews will be audio recorded using a Zoom recorder, and they will ideally take place in a location where you practice your activity, but you are welcome to suggest an alternative location.

There are no known risks to participation in the study.

Participation is voluntary and you are free to withdraw at any time, at which point you are welcome to remove all or part of your data. Your signature below indicates that you understand that your participation is voluntary and that you are free to withdraw at any time.

You are not obliged to answer any questions that you find objectionable or which make you feel uncomfortable.
No identifying information will be collected and confidentiality will be protected. Reports of this study will aggregate interview data and will not discuss individual interviews. The interview notes will be stored on a password-protected computer at and destroyed after five years. Only the researcher and her supervisor will have access to this data. Your signature below indicates that you understand these provisions around confidentiality to the extent possible.

Research results will be presented at a conference and/or in an open access publication relevant to the digital library community. There are no foreseeable secondary uses of the data.

While remuneration will not be provided, you will be contributing to a better understanding of education and learning, which may benefit your respective places of study, businesses and communities.

Any questions about study participation may be directed to Amanda Balsys at abalsys@gmail.com, or my supervisor, Dr. Magda Lewis, at magda.lewis@queensu.ca, 613-533-6000 ext. 77277. Any ethical concerns about the study may be directed to the Chair of the General Research Ethics Board at chair.GREB@queensu.ca or 613-533-6081.

Your signature below indicates that you have read this Letter of Information and have had any questions answered to your satisfaction. Please keep a copy of this letter for your records.

Please sign one copy of this Consent Form and return to Amanda Balsys. Retain the second copy for your records.

Name: ___________________________

Date: ___________________________

Signature: ________________________

Should you prefer a copy of the results of the study, please provide your email/postal info in the space below:
Appendix B

Interview Questions

The interviews will be guided by the five main research questions:

1. What is the value of the kind of learning that takes place during focused, task/flow-based activities?
2. How does solitude contribute to the learning process during flow-based activities?
3. Why does this specific learning experience seem unavailable?
4. Why do some people seek flow-based learning experiences and what/how do they gain from them?
5. How might identification with this method of learning help improve the educational experiences of individuals?

Interview Guide

Description of the activity

1. What activity/activities do you engage in?
2. For how long have you been practicing this activity?
3. Why did you choose this particular activity? Tell me the story.

Conditions for flow

4. What do you value most about practicing this activity?
5. Describe what is happening (physically and psychologically) when you are practicing this activity.
6. How does this affect / benefit you?
7. When did you first begin to notice that this was occurring?

8. Did you attempt to find/manipulate conditions for flow to occur?

**Relations to Learning, Solitude**

9. What methods of concentration do you utilize?

10. How have these methods been practiced, and for how long have you been using them?

11. How can your experience of your activity be described as a learning process?

12. Have these experiences during your chosen activity helped you with other tasks that require concentration and focus? How?