B-boy (Dance) Cipher:
An Innovative Knowledge Community's Shared Activity

Haidee Smith Lefebvre
Department of Integrated Studies in Education
McGill University, Montreal
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Abstract

My study focuses on b-boying, the archetype of hiphop dance, to better understand the informal teaching and learning processes embodied in the freestyle or raw b-boy cipher (improvisational dance circle). I draw from an ethnographic approach to investigate how hiphop aesthetic practices influence people's ways of doing and habits of mind. In particular, participant observation structures my activities at 13 hiphop events. These observations are complemented by an in-depth interview with Buddha, co-founder of the Canadian Floor Masters, Canada's oldest b-boy dance crew. The theoretical framework uses Lave and Wenger's concept of situated learning in tandem with Nonaka's organizational theory of knowledge creation. By analyzing the cipher as a potential site for dancers to experience a conscious readiness to change I find that 1) situated learning and knowledge creation are closely related; 2) knowledge creation and hiphop practices are connected; 3) b-boy culture resembles an innovative knowledge community that shares personal knowledge to create and advance communal knowledge. The research approach I practice may help educators better understand how a neighbourhood activity created over 30 years ago by and for some South Bronx youth has developed into a global practice produced and consumed by many of today's youth and adults.

Résumé

Mon étude porte sur le *b-boying* (*break boy*, danseur), archétype de la danse hip-hop, pour dégager l'enseignement et les procédés d'apprentissage informels inhérents aux cercles de danse improvisée – création libre (*freestyle* ou *raw cipher*). Ma méthodologie intègre certains aspects d'observation participante selon la trajectoire de recherche s'intéressant à l'influence des pratiques hip-hop sur les façons de faire et de penser. Ceci oriente mon observation participante de 13 événements et mon entrevue en profondeur avec Buddha, de la plus ancienne troupe de *breaking* du Canada, Canadian Floor Masters. Mon cadre théorique s'appuie sur l'apprentissage situé de Lave et Wenger, et la création du savoir de Nonaka. J'analyse le cercle de danse comme lieu permettant de s'ouvrir consciemment au changement, constatant que : 1) il existe une corrélation entre l'apprentissage situé et la création du savoir; 2) la création du savoir et les pratiques hip-hop sont interreliées; 3) la culture *b-boy* évoque une communauté de savoir novatrice partageant des connaissances personnelles pour générer et faire progresser un savoir collectif. Mon approche aiderait les éducateurs à mieux comprendre comment cette activité de quartier créée il y a trente ans, par et pour des jeunes du South Bronx, s'est transformée en pratique réalisée et consommée à l'échelle du globe par les jeunes et les adultes contemporains.

Table of Contents

List of Figures

List of Tables

Chapter 1: Creating Knowledge in the B-boy Cipher

Sometimes I ask myself why do I dance?

And then I remember, I AM the dance. (Flearoc SKMZ, n. d.)

In the 1970s a popular street dance, b-boying, was created as part of the hiphop culture by Black and Latino youth living in New York. B-boying, the archetype of hiphop dance, customarily happens in the cipher, an improvisational circle where the soloist showcases her or his skills "while encoding gestural messages into the executed movement phrases…these messages often comment with bravura on other dancers' perceived lack of skill, while extolling one's prowess as a performer" (Osumare, 2002, p. 33). Considered one of the four founding hiphop elements, this particular street dance is a "style of competitive, acrobatic, and pantomimic dancing" (Banes, 2004, p. 13). In a comprehensive study of the New York b-boy culture, Joseph Schloss (2009) indicates that b-boying began with the break –the musical moment when all instruments except the rhythm section are silent. He states, "Hip-hop music and b-boying were born as twins, and their mother was the break" (p. 29). Many people recognize "b-boying or breaking" when they see the dance performed. Yet, they use the commercialized term "breakdancing" to identify what they have seen.

Typically a dance set or sequence is arranged into four parts that follow a particular order: top rock, foot work, power moves and freeze. Most soloists perform all four when ciphering. In other words, "b-girls" and "b-boys" flow from rhythmic upright dancing (top rock) then drop to the floor on their backs as their legs twist, twirl, kick (foot work and power moves). Then they flip to their feet and freeze into a pose such as holding oneself upright on an elbow with both soles touching overhead. Radio, a b-girl active in the Montreal street dance community since the 1990s, explains that dancers must maintain their musicality and rhythm to interpret the music while using various parts of their body:

In other words, instead of simply dancing standing on their feet, breakers dance on their backs and on their hands, spin on their heads and elbows.

They do a myriad of unimaginable and dangerous looking movements that push the boundaries of the human body to remarkable new heights. (Smith Lefebvre & Schnitzer, 2010, n. p.)

Most "breakers" consider the raw or freestyle b-boy cipher the centerpiece of breaking. The cipher, a circular space formed by observers with a dancer in the middle, depends on fluidity. Moved by the music and by previous improvised performances, a b-girl flows into the center replacing the b-boy who ebbs to the periphery, blending in with the spectators. The cipher energy builds as participants slip back and forth between presentation and observation, streaming again and again from audience participation to solo improvised performance. Often ciphering goes on "into the wee hours of the morning" (Stevens, 2008, p. 133). Many dancers describe the cipher as a here-now activity that blends two constituent processes, competition and collaboration. This dualism cycles through individual to collective processes of learning and innovating.

The b-boy ways of learning and teaching interest me because these individual and collective processes represent education in a unique fashion. They make me curious about how with little or no institutional support humans educate themselves in ways that profoundly shape their sense of self and place, as well as ways that greatly influence their social interactions and worldviews. I wonder how those intrinsic educational experiences and processes have matured from a neighborhood activity into a worldwide practice that appears to have institutionalized educative methods and philosophies. I believe the b-boy practice provides educators with opportunities to better understand the ways humans learn and teach in places and with people that commonly do not come to mind when conceptualizing educational approaches, settings, or teachers.

The collective processes shared by the soloist and the encircling spectators can be connected to situated learning and knowledge creation. Lave and Wenger (1991/2006) describe situated learning as learning that occurs in a specific context embedded in a particular social and physical environment. Knowledge creation, according to Nonaka (1991/2007), arises during patterns of social interplay rooted in action and a shared space. Individuals and groups create new knowledge when

a dynamic interaction between tacit and explicit knowledge spirals through four patterns or phases: socialization, externalization, combination, and interaction.

My thesis closely examines the b-boy dance cipher to better understand the individual and collective processes embodied in the freestyle or raw b-boy cipher. Sometimes these processes appear as the mentor-apprenticeship relationship with the interesting aspect that on occasion the apprentice mentors him or herself. This aspect emerges when analyzing the cipher as self-competition from the understanding that situated learning and knowledge creation are closely related (Nonaka, Konno, & Toyama, 2001). At other times the cipher processes appear to develop an individual's experience of transcendence, a sense of the extraordinary that emphasizes intellectual experience and reflection through action (ibid). The cipher as a space to develop transcendence connects to the internalization phase of the Nonaka's theory of organizational knowledge creation.

By interpreting the cipher as a product and a process, I explain that in the cipher many b-boys and b-girls collaborate and compete simultaneously. In these instances, the cipher contains creative interactions that follow the conditions for participation based on b-boy practices (Nonaka, Toyama, & Hirata, 2008). For instance under the community's watchful gaze, dancers criticize one another's performances, flaunt their aesthetic prowess, while many experience the loss of self-consciousness. These experiences may contribute to the development of some dancers' capacity to adapt to change, to improvise, and to perceive opportunities at the right time. These abilities can cultivate sensitivity for meaning and the willingness to innovate by sharing personal knowledge to create and advance communal knowledge (Nonaka, Konno, & Toyama, 2001).

This study interprets the b-boy freestyle or raw cipher as a product and process that functions as a situated learning activity (Lave & Wenger, 1991/2006) and as the internalization phase of the knowledge-creation process (Nonaka, 1991/2007). In addition, my thesis considers the b-boy culture as innovative communities of knowledge (Paavola & Hakkarainen, 2005, 2009), not communities of practice (Wenger, 1998). Paavola and Hakkarainen view learning

as innovative knowledge communities that develop common objects of inquiry based on advancing communal knowledge. Their approach may contribute to future research that seeks to better understand how a neighbourhood activity, created over thirty years ago by and for some South Bronx youth, has matured into worldwide cultural practices produced and consumed by and for many of today's youth and adults.

I work with hiphop aesthetic forms, a research trajectory identified by Petchauer (2009) that is interested in how hiphop practices and aesthetic forms influence people's ways of doing and habits of mind. He explains that hiphop as a set of aesthetic practices contains and produces situated ways of doing and habits of mind; for instance, technical memorization skills developed when performing as an emcee that can be transferred into the classroom. An ideological example would be "a critical wariness toward formal institutions of learning" (p. 961). Another example found among graffiti and BBBG crews are mentor-apprentice relationships that support both the newcomers' development of skills and socialization into the group. Christen (2003) describes socialization for graffiti writers as developing independence, collaboration, responsibility and citizenship to one's group. Petchauer's conceptualization of hiphop habits of mind as a set of values or practice resembles Aristotle's p*hronesis* generally considered practical or moral wisdom.

This introductory chapter includes an overview of both hiphop and b-boy cultures based on two themes. First, I explain some hiphop terminology and the terms I use throughout the thesis. Second, I describe the b-boy raw cipher. The cultural overview then transitions to a description of the trajectory that lead me to B-gal Radio and B-boy Buddha, the principal participants, and to this particular study.

Contested Terminology: CAPS and Hyphens, Breakdancing and Gender Hiphop, Hip Hop, hip-hop?

In the 1970s, the postindustrial South Bronx was a site of poverty and disenfranchisement. Young people from Black and Latino communities responded to their circumstances using spray cans, cardboard boxes, stereo

speakers, turntables and records. They spray painted their messages on brick walls and subway trains. Refrigerator boxes became dance floors on concrete street corners and parks littered with glass. Eventually, the response was named "Hiphop." Later, hiphop referred to a culture comprised of four elements (graffiti, breaking, deejaying, and emceeing).

KRS One, an emcee and activist who has lectured at colleges and universities, spells the term in three distinct ways: *Hiphop, Hip Hop,* and *hip-hop.* In a personal interview with BillyJam (2010), KRS One explains the critical differences between the different spellings and meanings:

- Hiphop is consciousness that never enters the physical world. Those who are sensitive to its absolute nature, sense Hiphop psychically. Hiphop is a shared idea, behavior, a shared way of viewing the world.
- When we say we're Hip Hop, Hiphop enters the physical world. Hip Hop is the mind, the body, the people at work. They create and enrich skills necessary to breaking emceeing, graffiti art, DJ'ing, beat-boxing, street fashion, language, knowledge, and entrepreneurialism.
- These human skills create hip-hop products such as rap music entertainment.

KRS One acknowledges the meanings and spellings are technical. Further, that "this is also privileged knowledge and the average person doesn't need to know this" (KRS One, personal interview with BillyJam, July 22, 2010). Generally, authors choose between several versions of the appellation. For this thesis, I use "hiphop." However, if hyphens and or capitalization appear in original sources, I cite them without comment. Similar to the various spellings for the term hiphop, I also cite two common spellings—cipher or cypher—without comment for "the quintessential b-boy environment" (Schloss, 2009, p. 98).

Once the subculture named itself hiphop, the four artistic expressions were eventually christened graffiti, b-boying, deejaying, and emceeing. As a set, they are commonly referred to as the four elements of hiphop. So far they have not been standardized. Petchauer's quote demonstrates the vocabulary's state of flux and a scholar's need to learn the terminology: "These expressions of hip-hop,

known as the *four elements,* include *emceeing* (i.e., rapping), *DJing* (i.e., turntablism), forms of dance such as *breaking* (i.e., breakdancing), and writing graffiti" (original italics, 2009, p. 946). However, suggesting scholars learn the various terms and when to use them poses a conundrum. Often practitioners themselves hotly contest hiphop vocabulary, even those with access to privileged knowledge. For example, one of the first lessons taught to me was not to refer to b-boying as the popular term "breakdance". The b-boy culture has a set of rules indicating when to use various terms and why. The next three sections explore some of these rules to explain the terms and acronyms I use throughout the remainder of the thesis.

Etymology of "Breakdancing"

B-boy Buddha states the dance form was originally referred to as breaking or b-boying; however, in the 1980s when the dance caught on and become a commodity the media renamed it "breakdancing" (S. Leafloor, personal interview, November 2, 2010). This marketing tool lumps together a specific aggressive street dance with an assortment of street dances, repacking them as a "non threatening form of musical acrobatics" (Huntington, 2007. p. 58). Several b-boys/b-girls interviewed by Schloss (2009) liken the terms "breakdancer" and "breakdancing" to saying the racial epithet "nigger." Accordingly, they instruct newcomers to refer to the dance as "b-boying" or "breaking" and dancers as "b-boys/b-girls." By doing so they teach a lesson on authenticity and caution their peers to commit to the culture by learning the historical roots of the dance. This illustrates one way to absorb newcomers into the practice. When newcomers show knowledge of the etymology of hiphop and b-boying terms, established practitioners confer on them degrees of credibility and authenticity. More points are earned when newcomers know when to use terms to communicate membership, respect, or insult (Schloss, 2009).

Gender Discrepancies

Many b-girls/b-boys consider b-boying "a generic term that includes women" (Schloss, 2009, p. 15). For instance, both men and women refer to what they do as b-boying; however, in reality, gender bias prevails. Stevens (2008)

explains the dance is male-dominated because the cardiovascular demands of the dance require substantial upper body strength:

> The fiercely competitive nature of the dance made for very aggressive dancers. In the 1990s especially, crews often operated as a bit of a boys' club. The number of b-girls in Montreal has increased steadily over the years, probably in large part due to the visibility of the all-female groups *Ellementale-5* and *Solid State.* (p. 106)

I regularly see b-boy crews that include one or two b-girls. However, I have never seen the contrary, a dance crew where men are the minority. Schloss (2009) notes while b-girls describe what they do as b-boying and or b-girling, he never once heard a b-boy say his dance style is b-girling. I agree with Schloss there is a dissonance between claims that the term "b-boying" is gender neutral and the fact that women are b-boys while men are never b-girls. The inconsistency becomes further complicated by appearances of exaggerated masculinity displayed by either gender during dance performances.

For Schloss, gender neutrality reflects an ideology upheld by the community: one is never judged based on gender, but on skills. B-boys/b-girls cultivate an attitude toward life that 'if you expect to be taken seriously, you should be prepared to compete on equal footing with anyone" (Schloss, 2009, p. 66). Another interpretation revolves around how little women's contributions to b-boying is noticed or acknowledged. This is especially evident when considering hiphop history. Celemencki (2007) points out "hip-hop's history is contested, and not only were Puerto Rican and other non-African American contributors regularly written out of its histories, but women have also been often excluded from the official hip-hop canon" (2007, p. 11). Stevens (2008) acknowledges that some women find the Africanist and the b-boy aesthetic more appealing than ballet or modern dance because it counters expected female roles and stereotypes. For example, there is an entire codified repertoire used to express aggression such as the Brooklyn (Up)Rock, which is dancing with a variety of fighting movements that include cutting, hitting, and shooting. Among its mimed props are the bow and arrow, shot gun, and knife. Above all, the dancers are as close as possible but

do not actually touch. Stevens observes:

> Not happy to simply look pretty on the sidelines, more and more women
> are taking the bruises and learning the challenging moves of breaking.
> They are also participating in battles, and sometimes even winning against
> men. Breaking is both a physical and mental challenge for women who
> have been traditionally not welcome in the breaking cypher. (p. 135)

A living example of an early female pioneer is Asia One. Mentored by the Rock Steady Crew, she is a world renowned "Bgirl lifestyle entertainer" who has traveled the world performing with artists such as Black Eyed Peas, Tribe Called Quest, and Malcolm McLaren. In 1997 she established No Easy Props (NEP), a movement to set standards of excellence throughout hiphop with the motto: No Easy Props…you have to earn your respect through your skills! (Crazy Legs, n. d.). Another example that more women have access to the dance today is the world's largest international b-girl competition, *She Got Game*. Prominent b-girls attend and compete from countries such as U.S.A., Japan, Finland, Germany, China, Austria and New Zealand.

The b-boy terminology is diverse and divisive. Further, it poses a dilemma between respecting hiphop standards and using respectful language. Rather than using " b-boy," "b-girl," and "b-boy/b-girl," I use: "BBBG," "dancer," "breaker," and "b-youth." In deference to hiphop standards, I refer to the hiphop dance as "b-boying" or "breaking."

The Raw Cipher: Collective Enterprise and Knowledge

The term "cipher or cypher" originates from the Nation of Gods and Earth (NGE), also known as Five Percenters, who formed in the 1960s after separating from the Nation of Islam (Johnson, 2009; Schloss, 2009). According to Schloss (2009), NGE's terminology was extremely influential in the New York hiphop scene. The term represents circles or cycles, such as the zero or the letter "o" and "especially the circles of people in which their [NGE's] lessons are propagated" (p. 98). Johnson explains, "Ciphering among Five Percenters also refers to standing or sitting in a circle and speaking with one another to "build" intellectually among those schooled in their "Lost-Found" lessons" (2009, p. 4).

Schloss identifies many lessons that arise in the b-boy cipher including:

- a connection to traces of the NGE politics and spirituality and to other circle-based hiphop elements;
- a place to overcome shyness, and to develop the ability to perform under pressure, project confidence, and convert mistakes into "a larger framework that characterizes them as correct." (p. 101)

A Noun and A Verb

BBBGs often describe the cipher as a performance arena for the dance; as a competitive act expressed through improvisational dance performances, and as a flow or transcendental state. Schloss (2009) indicates that BBBGs presume the space, dance, and relationship between the two constitutes the entire cipher experience; when conceptualized as a verb, the social and spiritual nuances associated with the cipher emerge. He sums up the space and energy BBBGs often ascribe to the freestyle or raw cipher:

> [The cypher] does not require a stage, an audience, a roof, or a dance floor, or even a designated block of time. The cypher's very informality and transience are part of its power; it appears when and where it is needed, then melts away. Rhetorically, it is often referred to as "the" cypher, rather than "a" cypher, which suggests that all cyphers are, in some abstract way, connected. B-boys and b-girls view the cypher with an almost mystical reverence, befitting its status as the most authentic, challenging, and raw environment for b-boying. (p. 99)

Johnson (2008) develops the meaning of raw:

> *Raw* speak to ciphers as uncooked or unprocessed—i.e. the freshness of improvisation. Or it can suggest that the performances are raw, as in unrestrained or unbridled. The rawness is eternally present tense, an unrepeatable combination of overt yet controlled performative aggression. (p. 6)

A Feeling

According to Buddha, raw means "you feel it" and are driven by the music into the cipher core (S. Leafloor, personal conversation, November 2, 2010). For

him, this becomes a moment of transcendence because the dancer neither shows off, nor seeks approval. Instead the music evokes feelings that are expressed through the dance. The feeling expressed at the core in turn taps into and accentuates those feelings experienced by the dancers forming a circle around the soloist. When individuals transcend their limited boundaries and understand they are part of a larger perspective they are engrossed in the knowledge-creation process (Nonaka et al., 2001). Put another way, as a hiphop pedagogical site, the cipher takes place away from school. It is a communal circular space where dancers and spectators learn and perfect their moves, construct their individual and communal identity, and collaborate within a competitive context. To use KRS One's vocabulary, the dancers experience a shared way of viewing the world (Hiphop) as they create an improvisational dance (Hip Hop) in the here-now of the freestyle cipher (hip-hop).

Thesis Trajectory: From Mother to Researcher

Since 2004 I have frequented b-boy and hiphop events in Montreal and Ottawa. For the most part, I attended and discussed these events with B-gal Radio. We met through my son whom she mentored for over four years. Their weekly practices were often book ended with socializing such as eating, shopping, and hanging out with other dancers. Over time we became friends, though initially a large part of our relationship revolved around her teaching me the history and philosophy of hiphop and b-boying. She introduced me to b-girls and b-boys, often including me in their discussions. Radio trained my eye to distinguish between the five categories expected in a b-boy dance set or sequence and to "read" the gestural messages used by the dancers and the audience. More importantly, I connected the abstraction *b-boy attitude* to breaking activities and interactions with the help of her insider knowledge and insights. For b-girls and b-boys, this attitude is on display when you perform an identity based on self-knowledge and self-mastery. The community constantly evaluates and criticizes both your individuality and your technical mastery of the dance repertoire. They assess to what degree you can *rock* your world. In 2009 at an academic conference, Radio and I presented *Hiphop Battle Dance Competition:*

Test-taking B-boy style. This fact demonstrates both the success of our mentor-apprentice relationship and the personal and professional bonds that have expanded from that involvement. As Radio and I travelled to and from, or met at hiphop events, we conversed informally. Usually we were part of a larger group of dancers; therefore, naturally occurring conversations were never audiotaped. Although my thesis includes very few direct quotes from Radio, I consider her a prominent participant for this investigation due to the critical role she played in my hiphop education.

Most of the direct quotes come from B-boy Buddha, the co-founding member of Canada's oldest b-boy crew, Canadian Floor Masters (CFM). Founded in 1983 with Kid Quick, the CFM describe themselves as a power crew based on fast floor moves and acrobatics. They have performed well over 100 shows, plus opened for professionals such as James Brown, Grandmaster Flash, Blackeyed Peas and LaLaLa Human Steps. Buddha started dancing roughly in 1975 and belongs to the original generation (OG) of hiphop. As an adolescent he spent most nights at the roller rink "rocking the red wheels" to music by Kool and the Gang, the Isley Brothers, Earth, Wind & Fire, and the Commodores. He explains, "All the aggressive male bravado that is in hiphop, I saw all that same bravado at the roller rink" (S. Leafloor, personal interview, November 2, 2010). When he began b-boying at the age of 23, Buddha had recently completed his undergraduate studies at Queen's University in Kingston, Ontario. His commitment to b-boying dates back to 1983, as does his relationship with his wife; together they raised three children. In 1985 he completed his Masters degree in Social Work, becoming perhaps one of the first b-boys to earn this distinction and to choose hiphop as his topic of study. Despite years of experience in social work, in a chapter written for the anthology *Therapeutic Uses of Rap and Hip-hop*, Buddha defines himself first and foremost as a b-boy:

> I have worked many front line jobs in the past 30 years ranging from street outreach, child abuse investigations, and wilderness outreach programs, to working in group homes and being a probation officer. However, I don't feel like this has ever defined me as a person. Don't get me wrong—I love

helping people, especially angry young men. If you were to ask me who I am, I would shout to the world with pride that I'm a B-boy. (Leafloor, 2012, p. 129)

Buddha and I met in his home on two separate occasions to audiotape the in-depth interview that totals six-hours. His interviews overflow with names, places, and events relevant to American, Canadian, and British hiphop history. On countless occasions these tips prompted an Internet search resulting in a deeper understanding and appreciation for the complexity of a street dance intimately bound to (African) American culture that was created by and for South Bronx youth in the late 1970s. A true teacher, Buddha intensified my interest in b-boying.

My curiosity dates back to 2004 when Flare, I am his mother, decided to discontinue classical music training to learn b-boying. The first time I ever heard of the street dance was the day Flare told me his plans. As a parent of a pre-adolescent with a deepening investment in the b-boying element of the hiphop culture, I accompanied him on his journey of apprenticeship into the culture. Since then I have attended numerous b-boy events and activities, and read both commercial and academic hiphop literature. By 2009, Flare had weathered several excruciating life experiences that may have caused him to trade b-boy gear for graffiti gear. The criminality attached to many graffiti activities strained our relationship. However, I continued to attend b-boy events as a way to hold a place for him and to hold on to him. And more, to imagine him in the future as a young man similar to the ones I have observed and chatted with in the Montreal street dance scene. I also wanted to understand why he left an underground or grassroots hiphop community that the literature sometimes portrays as a place where youth achieve empowerment. Gradually, my mother's curiosity transformed into an educator's commitment to document the educational practices I witnessed at local hiphop and b-boy events. My hiphop knowledge comes not from immersion in the culture, nor from a hiphop-identity dating back to childhood or adolescence, neither from peers grouped under the umbrella of popular culture; rather, my hiphop knowledge comes as a purposeful respectful way to learn about both the

b-boy and the hiphop culture.

Chapter Summaries

In chapter two, "Hiphop-related Literature Review," I demonstrate the limited amount of available research on b-boying in general, and the b-boy cipher in particular. Then I introduce three b-boy studies that inform and inspire my work. Finally, I examine three descriptions of the cipher made by academics to illustrate possible misconceptions that exist in the literature.

Chapter three, "Methodology: Participation Observation" maps out my qualitative research design. The chapter begins with a description of the data collection matrix based on the sites and persons relevant to my study. From there, I make explicit connections between b-boy pedagogy and participant observation as a method of study. Then I link this method to concepts of direct-observation, freedom of access, and intensity of observation (Smith, 1978). Next, I demonstrate the relevance of using narrative inquiry for the interview with Buddha. Finally, I explain that although I am not a b-girl, my data originates from seven years experience as a participant observer at various events organized by and for the Montreal b-boy community.

Chapter four, "Learning Theories: Knowledge Creation & Participation," explains my theoretical framework that blends aspects of the theory of organizational knowledge creation (Nonaka, 1991/2007) and legitimate peripheral participation (Lave & Wenger, 1991/2006). Nonaka's theory identifies explication of tacit knowledge as crucial to the genesis of innovation (Paavola, Lipponen, & Hakkarainen, 2004). Thus, new knowledge results from the interactive process between tacit and explicit knowledge. First, I differentiate between these two types of knowledge to explain the knowledge-creation process that consists of four modes of knowledge conversion: socialization, externalization, combination, and internalization (SECI). I link this process to the environment where knowledge is created, shared, and exploited. Nonaka, Toyama, and Hirata (2008) define it as *ba* (a Japanese term roughly translated as "place"). There are four types: originating ba, dialoguing ba, systematizing ba, and exercising ba. A discussion of Lave and Wenger's (1991/2006) analytical

viewpoint legitimate peripheral participation (LPP) follows the explanation of the knowledge-creation process. LPP describes learning embedded in the social world by examining the dialectical relationship between the individual and the collective they are absorbed into as they absorb the sociocultural practice. LPP incorporates three concepts that I briefly summarize: practice, person, and social world. Next, I discuss the ways in which these two learning theories diverge and converge. Finally, I explain the three learning metaphors: acquisition, participation, and knowledge-creation. Hakkarainen and Paavola (2009) refer to the third metaphor as the knowledge-creation metaphor. Their perspective on learning views participation (social practices) and knowledge creation (deliberate creation and advancement of shared objects) as closely related, not opposed. I introduce this topic because my theoretical framework fills a gap that occurs when they compare models of innovative knowledge communities to concretize their knowledge-creation metaphor. This supports their research aim to produce new conceptual means to analyze and understand learning. I think their approach may open new perspectives to better understand the transformation of hiphop from an American to a global culture.

Chapter five, "The B-boy Cipher: Product and Process," explores some descriptions shared by the b-boy cipher and the theories examined above. I describe the b-boy cipher as an example of legitimate peripheral participation *and* of the internationalization/exercising phase of the knowledge conversion process. Then, I demonstrate that the cipher represents the self-transcending process that spreads completely throughout the knowledge-conversion process (Nonaka et al., 2001). I suggest that the b-boy cipher practice has the potential for dancers to experience a conscious readiness to change. Last, I demonstrate how Buddha broadens this state of readiness situated in the dance to life beyond the b-boy culture. By the chapter's end, using this theoretical framework, I discuss three findings:

1)   By examining the cipher as competition between one's self and or adversaries, and the ways b-boy etiquette govern this norm, I find that LPP resembles the knowledge conversion process

where explicit knowledge converts into tacit during on-the-site interactions situated in the freestyle cipher. Accordingly, situated learning and knowledge creation are closely related.

2) By investigating the cipher as a time and place that dancers and spectators describe as a spiritual connection, I find that Buddha conceptualizes this connection as a reciprocal relationship between music, transcendence, and "engagement tools". This resembles the internalization/embodying phase of knowledge creation, a phase that accentuates learning through transcendence and reflection through action (Nonaka et al., 2001). Correspondingly, knowledge creation is connected to hiphop habits of mind and ways of doing.

3) The cipher exemplifies some of the ways BBBGs work together to enrich and create shared objects of activity (Hakkarainen & Paavola, 2009). Their collaborative efforts demonstrate the sharing of personal knowledge to create and advance communal knowledge, and that b-boy culture is an innovative knowledge community (Nonaka, 1991/2007; Paavola & Hakkarinen, 2004).

Chapter six, "Conclusion: Hiphop Schools not hip-hop in Schools" describes some of the study's limitations related to the amount of available research on the b-boy culture and cipher, as well as a lack of research that investigates hiphop from the perspective of knowledge creation. Then, I discuss two apparent dilemmas that may arise when the cipher is relocated into existing educational settings. Educators could be disappointed because the cipher's potential might be diminished once this activity is altered into a high school instructional activity. In addition, hiphop practitioners may perceive educators as attempting to gain a degree of control over hiphop practices for their own benefit. Finally, I suggest a possible solution would be to study the feasibility of establishing a *Hiphop School* owned and operated by professional educators and masters of hiphop visual arts, music, and dance. The Hiphop School would be

based on successful models of performing arts schools such as Juilliard, the New York dance, drama, and music school, or the National Circus School situated in Montreal, Quebec.

Chapter 2: Hiphop-related Literature Review

Dance and movement are indispensable to the understanding of the

hip-hop culture, since physical movement underlies virtually every

element of its expression. (Schloss, 2009, p. 9)

In this chapter, I survey some hiphop-related literature to demonstrate that

until very recently little attention was paid to the culture as a whole, or to artistic

expressions such as graffiti and breaking; even less attention was paid to the

cipher practice. I also introduce the three b-boy ethnographic studies that inform

my thinking. Then, I examine three descriptions of the cipher to show why I think

it is critical for educators and researchers to better understand this complex

activity that carries great cultural weight for hiphop practitioners (Johnson, 2009).

A Survey of Hiphop Scholarship

Much hiphop-related literature concentrates on its history (Chang, 2005;

George, 1998; Rose, 1994) with an emphasis on its African (American)-derived

roots (Hebdige, 1987; Perkins, 1996). Originally from the South Bronx, today

hiphop is a global youth culture (Mitchell, 2001). Osumare (2001) emphasizes the

postmodern dynamics of the contemporary hiphop culture positioning it as a form

of global social narratives of representation. According to her, "Socially relevant

content found in some rap songs, coupled with hip-hop's driving rhythmic beat

resonates with youth internationally" (p.175). In addition to studies about hiphop,

there is a trend to use hiphop as a research lens to better understand the

construction of youth identities and learning (Dimitriadis, 2001).

Another research interest has been to study hiphop as a potential

(re)source for educators. The growing field of hiphop education perceives hiphop

as a "pedagogical site" (Silbermann-Keller, Bikerman, Giroux & Burbules, 2008).

This research strand connects schooling to the cultural capital (Bourdieu, 1986) of

mostly urban youth. Some educator-researchers have an interest in learning from

the youths' out-of-school practices to create, for instance, rap-based units to teach

literary concepts in high school (Morrell & Duncan-Andrade, 2002; Morrell,

2004). For the most part, studies about hiphop or designed around hiphop have

singled out its musical expression through rap music. This preoccupation mirrors

the commercialization of hiphop that has also reduced the culture to a musical product (Petchauer, 2009). As a result, hiphop scholarship contains less material on b-boying than it does on rapping.

B-boy studies in the minority. In his review of hiphop educational research, Emery Petchauer (2009) acknowledges hiphop's relevance to education and educational research. His study organizes hiphop scholarship into three categories: 1) historical and textual, 2) social commentary, and 3) grounded studies. He investigates the ever-expanding discursive body of hiphop scholarship to inform readers unfamiliar with hiphop, along with those whose research agendas are based on hiphop. In addition, he identifies three major strands within the previous categories as relevant to educational research:

1) Hip-hop-based education—studies that use hip-hop, especially rap songs and lyrics, as curricular and pedagogical resources;

2) Hip-hop, meaning(s), and identities—studies that focus on how students mobilize these texts and how they intersect with identities;

3)   Hip-hop aesthetic forms—studies that conceptualize the ways of doing or habits of mind produced by hip-hop practices (p. 952).

Petchauer's study mentions b-boying once when considering research by Hazzard-Donald (1996) and Israel (2002) who examined the interrelatedness of race and ethnicity in the complex globalized development of hiphop. He states, "For example, it is clear that Puerto Rican Americans in the Bronx have shaped and made steady the development of breaking" (2009, p. 965). There is also only one reference to graffiti art when he summarizes Christen's (2003) study of the mentor-apprentice process practiced throughout the communities and activities of graffiti writers. In Petchauer's defense, his search method was based on the terms *rap* and alternate spellings of *hiphop*. My point is that an interest in the b-boy culture benefits educators and researchers because of what could be learned from them when studied through any one of the three strands identified by Petchauer.

Three B-boy Studies

Existing research on b-boying has established a solid starting point to document and understand hiphop dance forms to the degree we understand its

musical expressions. Three in particular have inspired and influenced my work. I have already mentioned the published study *Foundation: B-boys, B-girls, and Hip-hop Culture in New York* by Joseph Schloss (2009). His research documents the ways b-boying traditions and aesthetic expressions have been passed down since the 1970s to create and further a profound art form. He explains that BBBGs use the term "foundation" to refer to an "almost mystical set of notions" passed down from teacher to student (p. 12). Dancers' pedigree often depends on how well they master the breadth, depth, and nuances of the b-boy philosophy. The foundation contains more than "the actual physical movements it includes the history of the movements and the form in general, strategies for how to improvise, philosophy about the dance in general, musical associations, and a variety of other subjects" (p. 12). Schloss' work influences my conceptualization of b-boy pedagogy as filled with lessons that teach b-youth to project absolute certainty that if they do something of value, no matter how slight, it will be perceived and valued. I share his belief that the b-boy culture fosters the development of practitioners' own individual identities in the contexts of the dance communities to which they belong.

I also use and respond to *Breaking Across Lines: Ethnography of a Montreal Street Dance*, authored by Lys Stevens (2008) for her Master of Dance thesis. Stevens examines the aesthetic and socio-cultural changes that arise when b-boying is reconfigured as a contemporary dance performance. She explores breaking from four contexts: the freestyle cipher, the organized battle, the freestyle showcase and the contemporary dance performance. By researching the work of two Montreal dance companies, *Rubberbandance Group* directed by Victor Quijada and *Solid State Breakdance Collective* directed by a group of female dancer/choreographers, Stevens demonstrates the "approach of contemporary dance choreographers who fuse breaking dance vocabulary and aesthetics with contemporary dance and ballet" (p. xiii). Note, Radio, one of my two participants, is a founding member of Solid State. According to Stevens, "contemporary dance fusions…create the most consternation and critique in breaking circles, while freestyle choreographies are virtually unquestioned" (p.

181). The criticism points to contemporary dance choreographies that pretend to represent authentic b-boying, often going so far as representing the entire culture. Both dance companies participate in the Montreal street dance community and have also studied professionally. They explain their choreographic objective is to transmit the idea or spirit, rather than the actual b-boy dance form, through their freestyle choreographies. This type of choreography operates from the "concept of preservation or representation of the 'essential spirit' of the dance" (p. 182) because according to both companies breaking becomes something completely different when transposed into the theatricalization of a dance. This aspect of Stevens' study influences my recommendation that educators learn as much as possible about the cipher before altering it as an instructional activity. This includes going to numerous events where the people who participate in the local hiphop culture are ciphering.

In her doctoral thesis *Dark Matter in B-boying Cyphers: Race and Global Connection in Hip Hop*, Imani Kai Johnson (2009) plumbs these improvisational and competitive dance circles populated by people from different races and nations. Her primary research sites were b-boying competitions located in the United States, United Kingdom, Switzerland, and Germany. She examines how dancers use movement to connect in the cipher space. Plus, Johnson explores the cipher as a space to consider the ideas of a collective life responsive to individual lives. Her extensive study helped me better understand the cipher as a site "where a competitive-collaborative exchange amplifies a non-empirical dimension of connection that privileges psychic and spiritual liberation, but does not guarantee it" (p. 201). Her conversations with BBBGs from so many different places and with breakers who travel internationally resonated with Buddha's description of the b-boy culture as a resource that cultivates genuine friendships and worldwide hospitality. She claims, "Breaking crosses language barriers in favor of a shared physical language and music culture, the interweaving of histories, and a mutual understanding about living as breakers" (p. 206). I share her belief that the b-boy dance form is part of the b-boy lifestyle that presently is a global cultural

movement. By paying attention to how the culture spreads we may better understand the hiphop culture as an innovative knowledge community.

Researcher Background

My thesis brings together these three studies to contribute to academic documentation on the b-boy culture. I foreground Montreal and Ottawa as the primary sites of my hiphop study, then use New York and global b-boy practices to broaden my understanding of these local street dance scenes. My passion for b-boying contributes to questioning if the risks outweigh the benefits when educators translocate hiphop practices into traditional institutions, especially when researchers have only recently begun to spend time in the local spaces with actual people who create hiphop (Petchauer, 2009). My motivation developed from a recent trend to leverage the cipher into the classroom. I am concerned that educators and researchers are not yet knowledgeable enough about the cipher to effectively create alternative educative moments for young people and themselves. On several occasions I have come across simple descriptions of ciphering that implicitly or explicitly confine the cipher to the aesthetic process practiced by rap artists. Consider the following three examples that were a result of searching peer-reviewed publications based on various spellings and configurations of the terms: cipher, b-boy, and hiphop.

Academic Descriptions: The Cipher

Best (2007) challenges restrictions that limit Newfoundland music and dance as bound tightly to "traditions rooted in colonial influences in isolated environments" (p. 316). This restriction leads to the assumption that Newfoundland youth are passive consumers of hiphop products. The assumption overlooks the growing Newfoundland hiphop scene. In the case study of *CAN Control*, an experimental multi-media work performed by Monty Hall and Baptiste Neis, Best writes, Monty "asks the audience to come down and sit around the stage in a circle in true b-boy style" (p. 318). Then in an explanatory footnote, "During b-boy/b-girl sessions, dancers and observers commonly stand to form a circle with a space in the centre for dancing" (p. 332). She concludes that Newfoundland youth "battle" entrenched local perceptions that define

Newfoundland music and dance in such a way that their artistic expressions and identities as artists are slow to be recognized. Admittedly, Best does not set out to explain b-boying principles or practices in the manner of Schloss, Stevens, and Johnson. However, her thin description is worrisome when added to similar descriptions such as the next one.

The second example comes from *The Critical Cultural Cypher: Remaking Paulo Freire's Cultural Circles Using Hip Hop Culture* by Dee Williams (2009). He refers once to the cipher, "Historically the cypher was the place within Hip Hop culture where emcees would get together in a circle and initiate a 'freestyle' construction of rhymes" (p. 8). As with Best, Williams' preoccupation lies elsewhere. In an effort to enact a Freireian problem-posing pedagogy, he brought research on hiphop into the classroom. Williams uses hiphop as the starting point to develop the *Critical Cultural Cypher*. This in turn became the means to move towards a critical consciousness originating from Freire's *conscientizaçãoto*. Consequently, I recognize that a more complex explanation of the cipher may have been tangential to his paper.

The third example, *Rethinking Student Participation: A Model from Hip-hop and Urban Science Education* by Christopher Emdin (2009), redefines classroom participation as an active process that involves new roles for students and teachers. Based on studying models beyond the classroom, he points to four attributes of active participation:

> I find that true participation requires deep involvement in the preparation of the shared experience, showing excitement, having synchrony in movement and experience, and having a rhythm in the conversation where exchanges are seamless and people naturally take turns talking. These attributes of full participation are found in the hip-hop culture. (p. 9)

Unlike Williams, Emdin describes both physical and mental features of the rap cipher. More importantly, he emphasizes the hiphop norm that all those present during the cipher "are experts in some way because of the unique life experiences that they bring to the exchange" (p. 11). The significance of this emphasis occurs in reoccurring statements that traditional educators may be uncomfortable

enacting practices that foster the cipher as an instructional activity. While I support Emdin's proposal that we look to the cipher to understand how to improve class participation, my criticism has more to do with his restricting the cipher to a single constituent of hiphop. To illustrate, "Such [cogenerative] dialogues are similar in structure to *a key piece of hip-hop,* the 'rap cypher', in which rappers gather in a circle to recite their raps and exchange thoughts and ideas" (Emdin, 2010, p. 11, my emphasis).

The Cipher: More Than Rap

Taken separately, the three previous examples appear innocuous. Yet, readers unfamiliar with the hiphop culture may infer that rap artists are the only people who include the cipher in their aesthetic practice. More importantly, simplified descriptions under emphasize features of the cipher such as the hiphop cultural norm to use taunting and boasting as instructional tools (Low, 2011; Schloss, 2009), or to use the cipher as a site where experts (i.e., teachers) are expected to compete from the circle's center. These norms may appear to clash with classroom rules and the habitus (Bourdieu, 1977) that prohibit students from formally testing the teacher or using particular forms of communication.

Again, the three descriptions of the cipher cited previously may not be cause for alarm. However, taken as a whole they represent a current problem with the ever-expanding discursive body of hiphop scholarship where a disproportionate focus on rap has lead to the assumption that rap and hiphop are synonymous. Petchauer explains, "Strangely, many researchers who recognize the damaging role that corporate media has had on hip-hop have been culturally irresponsive through the same practice; separating rap from the rest of hip-hop for the sake of analysis" (2009, p. 965). By looking beyond rap lyrics, music, and practices, we notice many fundamental principles of hiphop that were created by and for youth, and are "commonly expressed through such elements as Breakin, Emceein, Graffiti Art, Deejayin, Beatboxin, Street Fashion, Street Language, Street Knowledge, and Street Entrepreneurialism" (KRS One, Fabel, Bambaataa, Mc Daniels, & HarryAllen, 2001). Petchauer (2009) suggests that we disrupt the tendency to separate our understandings from the people who live and produce

hiphop by taking responsibility to understand the hiphop culture as a whole with all its contested complexity. To achieve this objective, my study incorporates seven years as a participant-observer at various Montreal b-boy venues with recent b-boy scholarship undertaken by scholars who spent time learning from and dancing with the b-boys and b-girls cited in their work. My thesis adds to the b-boy strand of hiphop-related literature in hopes we gradually achieve a more holistic understanding of hiphop.

Chapter 3: Method of Inquiry: Participant Observation

My qualitative interpretive research design relies heavily on the method of participant observation. This method structured my activities at 13 breaking events. Later in the section that explains my data collection process, I list the events. Although participation observation was the central tool of inquiry, to better understand the symbolic interactions characteristic (Deegan, 2001/2007) of the b-boy subculture and the dance cipher, I also organized an in-depth interview with Buddha, and analyzed textual material. The six-hour in-depth interview occurred in Buddha's home, and even though we followed research questions, the content of the interview closely resembles a conversation. Buddha's narrative is my primary data source. Secondary sources are text from hiphop- and breaking-related websites, a book chapter written by Buddha, and Radio's Master of Arts thesis, plus documents collected from some of the 13 breaking events I attended as a participant observer. The bulk of this chapter explores how participant observation relates to my study. First, however, I briefly describe the data collection matrix based on the sites and persons relevant to my study.

Places to Go, People to See: Data Collection Matrix

Locations: Indoor, Outdoor, In the Car, On the Phone

The research field encompassed a variety of outdoor and indoor locations. The principle venues where a majority of the 13 breaking events occurred were public parks, community centers, and dance studios. I also include both Radio's car and my car as we travelled to and from events. Occasionally, we were accompanied by b-girls from her dance crew. I also add Concordia University where I first met Buddha at a hiphop conference, and McGill University where Radio and I presented the topic of b-boy battles or dance competitions. The most intimate setting was in Buddha's home where we held our interview. The final data collection site was created during telephone conversations with either Buddha or Radio.

People: Direct and Indirect Contributions

Most of the persons who contributed directly to my study are previously mentioned: Buddha and Radio. Indirect contributions came from folks at the 13

events. They include b-girls from Radio's dance crew, dancers, deejays, emcees, competition judges, b-youth, their friends and family, graffiti artists, community center staff, Montreal police, an Ottawa politician, Red Bull employees, journalists, photographers, and curious passers-by. I never interviewed any of these individuals; however, their presence greatly influenced the events' tenor. The synergy between these social groups is the elusive data that helps me better intuit b-boy pedagogy and cipher dynamics. They indirectly contribute in the same way supporting actors and background extras enhance the realism of a movie scene.

The Studied World: Fluctuating Participation

Practitioners of participant observation describe the researcher as part of the studied world (Emerson, Fretz, & Shaw, 2001/2007; Hammersly & Atkinson, 1983) appearing and disappearing in the midst of people's lives (Clandinin & Connelly, 2000). Through participation, the researcher notices individuals, along with their relationships to one another and to their social contexts (Dewey, 1938). Under these circumstances, I think, participation means taking an active role in the community's lived experience resulting in an emotional engagement while performing group tasks and functions. In this manner, the researcher gradually becomes more fluent in the "taken-for grantedness" (Clandin & Connelly, 2000) or the "cultural grammar" (Heath, 1983) of the people being studied. Eventually narrativists, ethnographers, social scientists, and participants articulate the tacit mental models, values, and beliefs implicitly known by the group. In addition, researchers voice how they influence and are influenced by the group's implicit knowledge. This crucial aspect, the fluctuating identity as a person living in the world and a researcher studying that world, was disorientating for me.

For instance, the first few times I entered the research field, I felt like a stranger in a familiar place. I experienced the contrast described by Mehan (1981) that research in foreign lands involves making the strange familiar. On the contrary, research in local settings reverses the process making the familiar strange to understand (as cited by Conteh, Gregory, Kearney & Mor-Sommerfeld, 2005). During data analysis, boundaries shifted frequently. For example, studying

the cipher seeped into self-study. Or when I swooped down like a crow on the bright gems scattered throughout Buddha's narrative, the research purpose splintered into multiple directions. At these times, graduate supervision led me back to thesis objectives. This process (familiar becomes strange, topic becomes elusive, supervision becomes focus pulling) helped me understand that qualitative researchers consider moments of dissonance central to the research process.

In the process of exploring various methodologies in search of explanatory perspectives that linked together data collection, analysis, and presentation of results, I adapted participant observation to my study. For the remainder of the chapter, I describe participant observation in relation to the concepts of direct on-site observation, freedom of access, and intensity of observation (Smith, 1978). Then, I explain although neither a b-girl, nor an audience-observer, I am a participant-observer both as a researcher and as peripheral insider of the Montreal breaking community. First though I summarize b-boy pedagogy to make explicit the connections between this informal instruction and my choice of participant observation as a tool of inquiry.

B-boy Pedagogy

For the last 40 years breakers have passed down from teacher to student, from master to apprentice, from peer to peer, the unique and expressive dance form, along with its musical canon, complex stylistic principles, and secret battle strategies (Schloss, 2009). Teachers and students develop intimate relationships to transfer knowledge by talking to and observing one another practice, perform, and compete. At the same time, these relationships protect the secrets from the competition. This informal intimate teaching practice occurs among graffiti artists as well.

In an interview with Nancy Guevara (1987), Lady Pink described how she learned the art of graffiti: "First, you're an apprentice to a master who teachers you to tag (a stylized signature) your name properly" (p. 163). Lady Pink's word choice suggests that central to the hiphop culture is the apprenticeship process. The apprentice fosters self-discipline, self-motivation, and commitment. Many

devoted practitioners develop an almost obsessive ambition to learn and perform one or more of the various expressive elements:

> As all dancers, breakers are eternal students; their learning never ends. Every time breakers dance or watch others dancing, they are re-evaluating and refining their movement possibilities. Informal instruction is continuous. This informal instruction can happen in the home, at jams specifically organized for practices, and on the dance floor. (Stevens, 2008, p. 121)

The long-standing educational technique diligently pursued by b-youth whereby they learn by watching, listening to, and discussing with one another matches aspects of participant observation.

Shared Traits: Breaking and Participant Observation

Participant observation aims to immerse the researcher in the community so that the research site is situated inside the lives of those under study. Many b-youth plunge into the hiphop culture to emulate the b-boy aesthetic and way of life. In this manner, they begin to comprehend implicit rules and make them explicit by learning the community's vocabulary, cultural grammar, and discourse modes. Likewise, engrossed in community life researchers learn to construct a "thick description" (Geertz, 1973, p. 9) of a human activity in a natural setting using the community's own language and everyday concepts (Conteh et al., 2005). This labor-intensive mode of fieldwork demands the researchers' time and commitment, so too does transitioning from the role of apprentice to master in the b-boy culture.

Perhaps the most striking similarity shared by both the research and the b-boy culture is that both communities promote direct participation as a regular feature of social life. As a result, the newcomer gradually transitions in a non-linear non-systematic trajectory from the edges of the group to its center (Lave & Wenger, 1991/2006). In short, participant observation maximizes the potential to achieve mastery by combining mentorship with the apprentice's self-driven and self-directed curriculum. The main idea here is that fieldworkers and BBBGs immerse themselves in a community they want to become a part of to

increase their personal knowledge. Typically researchers have identified a problem whose solution may require a new perspective. Ideally, their studies either develop personal knowledge and understanding or bring about social and political change (Conteh et al., 2005). In like manner, b-youth are often drawn to breaking as a result of having a problem; it could be they seek relief from boredom, harsh circumstances, or they seek a place where they feel their ideas, perceptions, and dreams, matter. Despite the varying reasons and motivations, investigators and b-youth appear willing to learn and interested in making meaning.

From this point on, I demonstrate my participant observation process based on three themes: direct on-site observation, freedom of access, and intensity of observation (Smith, 1978).

Participant Observation: From Dispassionate to Emotional Engagement

Participant observation as a research practice dates back to anthropological studies. The purpose of this method, commonly used by ethnographers, involves a scientist who watches and listens to the social, political, and cultural distinctions made by people under study. Tedlock (1991) lists the four archetypes rooted to the tradition of recording observations while simultaneously participating in a social context. They are the amateur observer, the armchair anthropologist, the professional ethnographer, and the "gone native" fieldworker (p. 69). Due to evolving group norms in the social sciences, these archetypes have been refined to a fourfold typology: complete observer, observer as participant, participant as observer, and complete participant. These roles have the following in common to various degrees:

A. The researcher is known as such by all, some, or none of the people;

B. The research is known fully or partially and by the above people;

C. The researcher's participation in group activities and the insider/outsider membership this entails;

D. The researcher's conscious or unconscious identification with the group (Atkinson & Hammersley, 1994).

I explain my stance as a participant observer by matching my activities to the above categories.

I begin with categories A and B. Radio and her dance crew, plus a few people I had been relating to since 2004 knew I was a researcher. When my formal study began in 2009, the folks in attendance at the open dance practices also knew. Both groups appreciated my interest, some were surprised a teacher wanted to learn from them, others made comments such as, "I hope you succeed," or, the most frequent, "Cool." However because I chose to follow conversation topics set by them, we rarely spoke about the study. For this reason, these people had partial knowledge about the project.

Of special note was the 2009, 5th annual *International Symposium* on *Hip Hop Culture* held at Concordia where I first met B-boy Buddha. I told him directly that I was researching b-boy informal pedagogies. As a result, he suggested himself as an interview candidate, thus self-selecting for the study. The only people who had no inkling about either my research or my role as a researcher were the changing faces that gathered as audience members at the organized and spontaneous battles (e. g. family, friends, general public).

My principal participation (category C) occurred during the freestyle cyphers as an informed novice. Later I expand on the relationship between the dancer at the circle's center and the witnesses encircling the dancer. In 2010, Radio and dancers from her crew began to ask me to videotape their battles. This simple request indicates my continuous non-linear non-systematic progress toward the group's center. As Radio and I are the only ones with cars and driver's licenses, I regularly travel with Radio and her crew. Thus, I consider myself a bicultural member with a fluency and level of comfort surpassed only by insiders immersed in the Montreal street dance scene.

My identification with the group (category D) stems from my love for the young women and men who create community through hiphop. My entry point into the culture was as a mother. In addition, the 'paradigmatic moment' that "magic moment highlighting the essence of the study to come" (Gregory, 2005, p. 3) occurred when I accompanied Flare to our first public b-boy battle to

celebrate his 13th birthday. As narrated in chapter one, long before I began to study the b-boy culture as a researcher, I was researching it as a mother. In many ways, I fell "into the chaos of love" researchers describe when they have become immersed and identified with the culture they study (Wolff, 1964, p. 235; Clandinin & Connelly, 2000). Therefore, these two identities immutably fasten me to the project and to Radio, Buddha, and the folks who have supported my involvement since 2004.

On-Site Observation: Dance Competitions and Practice

Given that my thesis seeks to understand how street dancers learn to dance from other street dancers, how breakers have created and developed a dance form with little or no institutional support, I focus on themes relevant to education such as situated learning and knowledge creation. My initial research proposal outlined observing high school students for one to two school years. However, the decision to finish a Master of Arts thesis in a two-year period moved the research field from a public high school to public places such as dance studios, community centers, and parks. Due to the time necessary for approval from the Montreal school commission and a high school, compounded by the time essential to establishing a trusting relationship with b-youth, I decided to redefine the research field. Because I was already a familiar face at organized battles, I decided they would be a more appropriate field of study. I added attending open practices with Radio in an effort to learn some of the dance moves.

Open practice: predictable and random. Dance studios and community centers schedule weekly or bi-weekly times where anybody can come to practice regardless of age, gender, physical ability, and b-boying expertise. Typically dance studios charge a small admission fee. Open practices are improvisational. Unlike a structured class, no one is officially in charge. There are staggered arrival and departures, though the latter is less likely because dancers usually stay to the very last minute. Breakers practice solo, in pairs, or in small groups. Some b-youth rehearse for an upcoming battle or performance, some to refine their dance vocabulary, newcomers learn from others, and many attend for the simple pleasure of having fun socializing with like-minded individuals. The musical

selection is as unpredictable as the dancers' attendance. Dancers take turns plugging their playback devices into the music system. Turn taking depends on a variety of factors: the dancer's status and personality type, whether or not some dancers are there to rehearse for an upcoming performance or battle, the song being played has an unsuitable beat, or is the wrong musical genre. Toward the middle or end of the open practice, it is not uncommon for the raw cipher to emerge.

Thirteen Events: Public and Insider

Although I have been a peripheral participant (Lave & Wenger, 1991/2006) in the Montreal street dance scene since 2004, for the purposes of this inquiry I attended thirteen dance events from winter 2009 to winter 2011. The nine organized public street dance events include the annual urban arts festival *Hiphop You Don't Stop* in Montreal and the *House of Paint* in Ottawa; the annual b-boy/b-girl battles: *Fresh Format 5th Anniversary Weekend*, the first time in Montreal *International Bboying Battle (Born to Serve 2010),* plus *Braggin' Rites* and *Winter Wars* both of which I videotaped. The final public event, mentioned above, was the *International Symposium* on *Hip Hop Culture*. The four insider events include a battle that spun off from the 2010 *Hiphop You Don't Stop* festival, open practice at Shauna Robert's Dance Studio, Studio Sweatshop (twice), and Café-Graffiti. My sole purpose at all these events was to remain alert and adrift in the "ocean of images of the phenomenon" (Smith, 1978, p. 333). The flood of information gathered in these settings helped me understand the freestyle cipher from my lived experience. Cipher dynamics are tightly bound to a specific social context. I believe it is nearly impossible to understand the dynamics without an actual experience of the activity. The only way I could gain this knowledge was through participant observation.

The remaining two dance events include the performance *Danse Danse* by the BJM Danse Montréal (Ballets Jazz de Montreal); plus the *Conference Danse Danse* with Louis Robitaille, the BJM artistic director. My purpose in attending these events was to view street dance as performance art presented by professionally trained dancers and to understand b-boying from Mr. Robitaille's

perspective. This direction was motivated by cautionary advice from a b-boy turned professional choreographer in regard to adapting street dance to the performance theatre (Stevens, 2008). I wanted to understand if a relation existed between bringing a hiphop practice to a dance piece and a lesson plan. I explore this later in the final chapter.

Freedom of Access: Anyone in the Room

In general, field workers' access to the setting and the participants involves negotiations with decision-making authorities. For instance, researching a classroom produces different results when observations occur throughout the school grounds and conversations are shared with different people. For this study freedom of access was hampered by the average age of the people in the environment, and the environment itself. When applying for ethics approval the plan was to formalize spontaneous conversations occurring at public battles through recorded interviews with many participants. The plan proved impractical for various reasons.

Whenever dancers arrive at public competitions, the deejay is already spinning music. The loud volume promotes dancing over talking. For my purposes, this acoustical obstacle barred me from engaging the b-youth in conversations about b-boy practices. The social activity draws participants to compete publicly; their purpose is not to talk about dancing, but to dance. So generally, upon arriving they find a corner, change shoes, stretch and warm-up. Then they start dancing. Gradually warm-up ciphers form in different parts of the room with groups ranging from four to fifteen. They cipher until the competition begins; then they cipher in-between the rounds (preliminary, semi-final, final).

Organized battles tend to attract youth whose lawful guardians must sign the consent forms that would allow them to participate in my study. Although legal guardians attend public battles, especially when the b-youth are pre-adolescent, in general, most b-youth travel in groups and are rarely chaperoned. For this reason, I decided not to solicit interviews. Instead, I believed the youth would grow accustomed to seeing me at the events. In this manner, regular attendance maintained my pre-existing insider-outsider status. This status

was bolstered at the event *Fresh Format 5th Anniversary Weekend* when I was seen with Buddha for much of the weekend. By then Buddha and I had an understanding that once my application for ethics was approved, the interviews could be scheduled. That Friday evening, unplanned, we arrived at the same time. Over the weekend we came to know one another through lengthy discussions ranging from parenting, aging, education, funk v. soul music, racism and globalization. We also commented on the unfolding event.

   As an acknowledged peripheral group member, there is a tacit understanding that I have access to anybody in the room. However, this status is tempered by two factors. First, when I initiated a dialogue although the b-youth responded, their replies tended not to be open-ended. Frequently, our conversations did not continue beyond polite exchanges. Most likely the youth were courteous because I am old enough to be a mother or grandmother to most. Second, some of the b-girls and b-boys I met in 2004 have left the scene entirely; others attend less frequently due to work, academic, and interpersonal responsibilities. In other words, my insider status is tentative, fluctuating as people's commitment to the activity and the community changes in response to their individual circumstances. Whether or not individuals chose to interact with me was their choice.

Intensity of Observation: Time as a Moving Boundary

   Around the time I was redefining the research field I met Buddha. This pivotal encounter led me to envision the inquiry as the combination of participant observation and Buddha's life story as a b-boy that would emerge during our in-depth interview. Buddha's experience would corroborate or contradict academic claims that for the last forty years b-boy practices rely in part on passing down knowledge from teacher to student (Schloss, 2009). Based on my experiences in the Montreal street dance scene, I had begun to recognize aspects of legitimate peripheral participation (Lave & Wenger, 1991/2006) expressed whenever BBBGs would cipher. From this understanding, I perceived a research inquiry that both drew upon and refined my past involvement in the Montreal breaking community as Flare's mother. I thought attending public dance

competitions maintained my group membership and also provided opportunities to refine the fieldwork I had accomplished as a mother.

Although I did not spend time all day everyday in the Montreal BBBG community, by 2009 I was already a familiar face with a reasonable amount of knowledge about the hiphop culture. In addition, I had a sense of the overall unity of the community and had an awareness of the nuances of their local idiom (Gellner, 1998). For instance, I was not an intimate insider apprised of day-to-day conflicts and celebrations amongst the b-youth. However if I happened to be in their presence, they would openly discuss these concerns amongst themselves, going so far as to listen to my comments and answer my point-of-clarification questions.

One example occurred while driving home from the Ottawa urban arts festival *House of Paint*. As the summer night deepened, Radio, Montreal graffiti writer Streak (not a real name), Toronto deejay KuneDo (not a real name) and I, competed over whose iPod contained better music (I was the clear loser, the newcomer, and the oldest). We debated cost differences between cell phones and landlines; then compared Montreal and Toronto hiphop cultures. We also discussed Streak's year in India opening a children's art school. In particular, we explored the ups and downs of setting curriculum, hiring teachers, and running a school without the benefit of professional training, and or any experience operating a school. Then for nearly two hours, Streak and I swapped stories based on the theme "less time running from the police, more time making art."

Being a part of the studied world. I suggest that in 2009 when dance competitions became the research environment, my presence did not cause participants to act unnaturally (Gregory, 2005). By then the b-youth were accustomed to my presence and I had achieved a certain fluency in their "cultural grammar" (Heath, 1983). So although I was both a part of and apart from the group, when my inquiry began I possessed a certain facility with the implicit rules that were taken for granted by the group (Clandinin & Connelly, 2000).

Kearney (2005) describes at length the years leading up to doctoral studies. His point being that "the fieldwork was already done in great depth long

before I thought of a PhD at all" (p. 65). It is not uncommon for researchers to equate past experience (and present in the case of action research) as crucial knowledge they bring to their projects. Although I do not pretend to have ever been fully immersed in the Montreal breaking community, my seven years and counting experience has deepened my understanding of the b-boy practice and enables me to have meaningful dialogues about the topic. On one hand, 13 events in a 12-month period may be considered an inadequate amount of time in the field. On the other hand, in the past seven years I have gained a considerable amount of breaking knowledge. I believe the total time I spent in Montreal local spaces seeing and listening to real people create hiphop is sufficient for this inquiry

Three 2-hour Interviews: Twenty-seven Continuous Years as a B-boy

This section outlines the interview process and structure that Buddha and I undertook. Buddha suggested that I create a list of interview questions and refer to them to keep the conversation focused on the research topic. His suggestion was based on the self-admission that his conversation style was rambling and tangential, though eventually made sense as a whole. We agreed that due to the travel time from my residence in Quebec to his in Ontario, we did not have the luxury of time for expansive conversations. Therefore, I organized the interviews into four themes: 1) Buddha's discovery story, 2) his teaching method, 3) equal opportunity and the hiphop culture, and finally, 4) links between the b-boying scene in New York, Ottawa, and Montreal. Note that despite our best efforts, we were unable to explore the 4th theme due to inclement weather and scheduling conflicts. Here are four sample questions (see Appendix 1 for the complete list):

1) Tell your story of discovery: When was the first time you were introduced to bboying? When did you know you wanted to learn the dance form? What people and events influenced your mastery of the art form?

2) Do you teach bboying the same way you were taught in schools?

3) Do you agree or disagree that all people take part in hiphop regardless of race, ethnicity, class, gender, or ability? Elaborate.

4) Are there any differences between New York, Ottawa, and Montreal with respect to teaching, learning, and furthering the dance form?

In many ways Buddha's in-depth interview consists of several stories that outline his maturation from a 23-year-old to a 50-year-old man. As a storyteller, Buddha uses his memories to narrate the pivotal and routine moments dating back to the beginning of his journey from apprentice to master b-boy. Desautels (2008) describes the two selves that are present when a storyteller activates the process of remembering to tell stories:

> The older self interprets the stories of a younger self and is constantly making connections between various experiences. The older self can analyze past stories and seek to extract further meaning unavailable to a younger self at the time of the experience. (p. 19)

Buddha's younger and older selves were evident throughout our six-hour discussion. Often in the course of describing his storied life, time shifted between the past and the present. When I noticed the shift I would ask questions such as, "When did that happen?" "Who else was there?" or, "Where were you?"

Later as I both listened to the audiotape and read the transcripts, as I relistened and reread so that Buddha's voice was always fresh in my mind, I noticed the subtle time-shifts usually occurred in the story's interior. When Buddha drew us into the action, tension, and motivations rippling through the story, the shifts would either move us away or toward fresh insights. In the storied space as Buddha taught me by sharing his lived experience, I perceived the younger characters acting out the story set in a particular social world located in a specific physical site. At the same time, I began to comprehend the connection between those past actions in Buddha's present-day and future life. This analysis was not a reflective activity; rather I organized the data into themes, categories, and specific topics always seeking to better understand the human experience conveyed through Buddha's intimate and unique narrative.

Uneasy Mix : "Street Creds" and Researcher Credibility

As local MC Gorilla Will is fond of saying, you're not really

a b-boy or b-girl if you don't cypher. (Wilburn, 2010, para. 1)

For me, being wrong includes misidentifying problems and misunderstanding solutions, but also being wrong about *how* to be a scientist. In those moments when I doubted my researcher skills, I also wondered how could a middle-aged single mother collect authentic data if I wasn't dancing?

At the first public b-boy event I attended, I stood nearly a foot away from the cipher wondering whether it was impolite to watch the dancers and if non-dancers were permitted to join the encircling crowd. Seven years later, I now step into the periphery as naturally as stepping into line. In fact, my hoots and gestures gradually lead to an imperceptible cue that I am expected to enter the circle center. Nowadays especially when attending events where I am not recognized, instead of feeling the discomfort of being in a foreign setting, I feel awkward that the BBBGs wonder when and then why I have not taken my participation to the next level. My narrative of transformation during cypher performances from uninformed to informed spectator draws out the fact that through years of audience-observation I cycled from curious passer-by to interested family member to a non-dancing informed participant.

In dance, when all the members of a community are actually dancing they resemble Nahachewsky' ideal of participatory dance (1995). "Breaking, in contrast, is a dance that requires witnesses that are not-dancing, at least for the period during which the participant in question is dancing (Stevens, 2008, p. 108) By no means do I fit Stevens working definition of a BBBG:

> A breaker in Montreal is someone who freestyles using the foundations of breaking in the presence of one or more informed spectators who can validate the experience. Therefore breakers become breakers when they are recognized as such by qualified members of the breaking community. (p. 104)

Although my b-boy learning has never gone beyond observing to imitating and practicing the dance, I believe seven years of involvement with b-girls and b-boys strengthens my thesis. Clearly articulating my reasons for this belief are important because the dynamics of hiphop insider- and outsider-ness involve complex positioning. In other words, by reflecting on my dual role as researcher

and mother turned hiphop fan, I bring attention to tension that may arise between breakers and educator-researchers. For example, I lack the "street creds" that dancers earn as they become fully immersed in the b-boy culture, therefore some breakers may perceive me as an uncertain spokesperson for their culture. However, some educator-researchers (myself included) may perceive the combination of my fieldwork and my hiphop experiences as more than adequate for the cipher analysis contained in this thesis.

I suggest that I am a qualified observer during dance activities performed by BBBGs. Through my relationship with Radio and Flare who participated in the Montreal dance scene for five years, I have learned enough to have gravitated from the outsider circumference to an insider periphery. While I am not qualified to judge organized battles, I have acquired enough tacit knowledge to take part in the on-going conversation danced and discussed by members of the b-boy culture. I believe that I am qualified to dub myself a participant-observer, reserving the role of audience-observer to uninformed individuals who have been to a handful of social activities organized and attended by breakers.

Chapter 4. Learning Theories: Knowledge Creation and Participation

Earlier in chapter one I described the freestyle cipher as a product and a process because the activity contains the b-boy cultural norms to collaborate and compete simultaneously. The cipher represents aspects of two theories that I use in tandem, the knowledge creation process (Nonaka, 1991/2007) and legitimate peripheral participation (Lave and Wenger, 1991/2006). This chapter maps out the theoretical framework that in the next chapter helps me analyze the freestyle b-boy cipher.

As Buddha and I discussed the informal pedagogies he practiced individually and with his crew, Canadian Floor Masters (CFM), he frequently made the comparison between learning the b-boy dance thirty years ago and today. Nowadays youth have access to the b-boy foundation (Schloss, 2009). But in 1985 as the CFM performed the dance and lived the lifestyle, they were also unintentionally co-creating the b-boy pedagogy and aesthetic. The OG's (original generation of hiphop practitioners) did not have a vision, strategy, structure, or system to refer to as they constructed the hiphop practices and aesthetic forms we know today. In the words of Engeström (2001), "[i]n important transformations of our personal lives and organizational practices, we must learn new forms of activity which are not yet there" (pp. 138). The difference between then and now lies between the rudimentary and advanced b-boy culture.

Consider Buddha's context from Lave and Wenger's learning theory, legitimate peripheral participation (LPP). Their theory describes the ways newcomers evolve from peripheral to full participation in a community organized around an activity occurring in a particular social context. A crucial distinction conceptualizes learners' participation as a way " —of both absorbing and being absorbed in—the 'culture of practice.' An extended period of legitimate peripherality provides learners with opportunities to make the culture of practice theirs" (Lave & Wenger, 1991/2006, p. 95). During the period, for example, when newcomer BBBGs mature into advanced beginners, they may learn the main elements to a set (toprock, foot work, power move, air move, and freeze). By then they may know toprock is rhythmic upright dancing that introduces the dancer's

style and character. Then they may be taught a foundational move such as the Apache step and told to "hit the bass kick and the snare on time." A proficient BBBG would be instructed to hit other musical elements such as the high hats, horns, or the piano. The dancers are exploiting or absorbing the extensive body of knowledge related to breaking. Simultaneously, by attending weekly open practice they are becoming absorbed into the community.

The crucial distinction, absorbing and being absorbed in the culture of practice, raises an interesting dilemma. LPP implies that newcomers enter an established culture of practice. In other words, LPP's explanatory strength describes different ways that well-established knowledge is implemented based on an apprenticeship model. Contemporary breakers draw from a comprehensive body of knowledge. They do this through social interaction with old timers that gradually absorbs them into the b-boy culture whose practices they are absorbing. This was not the case for Buddha in 1983.

Situated learning helped me to understand the subtle interactions intricately woven into the cipher. However, I needed a different theory to better understand the informal pedagogies practiced by Buddha and the CFM as they created the knowledge that today's BBBGs execute and advance. For this reason I added to the theoretical framework the knowledge conversion process formulated in 1991 by Ikujiro Nonaka (2007). His model focuses on innovation in organizations and consists of four modes of knowledge conversion: socialization, externalization, combination, and internalization (SECI).

I next summarize the key points from the SECI model, and LPP. In this manner, I articulate the theoretical framework relevant to understanding how these concepts were applied to my inquiry. This framework joins knowledge conversion or creation (Nonaka interchanges the two) to the mentor-apprentice process defined by LPP. This process goes beyond apprentices assimilating and reproducing a cultural practice. Instead, they learn the practice and discourse of the community they want to belong to. At the same time, the community finds a place for the newcomers out of its need to regenerate (Lee & Roth, 2003). In this manner both individuals and the community are transformed.

My approach may help educators better understand how a subculture created by and for the original hiphop youth has developed into a global culture that furthers the ways of doing and habits of mind, referred to today as hiphop aesthetics and practices.

A Spiral of Knowledge: The SECI Process

Ikujiro Nonaka's model of knowledge creation pivots around two types of knowledge: tacit and explicit. New knowledge results from the interactive process between these two types of knowledge. For Nonaka, Toyama, and Hirata (2008), because tacit and explicit knowledge "are opposite in character, they interact in a creative, dialectical process that is dynamic" (p. 18). From the standpoint of continuous learning, the SECI process is a clockwise spiral.

The SECI spiral occurs when an individual externalizes tacit knowledge transforming it into explicit knowledge. When shared, others enrich the personal expertise with their viewpoints. In the process the knowledge becomes a "newer, richer, subjective" understanding that can be internalized by more people (Nonaka et al., 2008, p. 19). From here, a cycle of knowledge creation begins anew. Again, knowledge conversion starts with a social interaction between individuals, then moves to externalization within groups. The cycle continues as the knowledge combines in organizations, then flows back to individuals who internalize the new awareness.

The knowledge creation process exists in an environment where individuals interact with one another and the context. In a certain time and space, knowledge is created, shared, and exploited. Nonaka, Konno, and Toyama (2001) define this as *ba* (a Japanese concept roughly translated as "place"). Metaphorically, ba is a "platform for knowledge creation" (p. 18). There are four types: originating ba, dialoguing ba, systematizing ba, and exercising ba. According to Nonaka et al. (2008) when exercising ba interacts with internalization then peripheral participation occurs (Lave & Wenger, 1991/2006). I'll come back to ba and to this point where LPP and knowledge creation converge, but first I explain the knowledge conversion process (see figure 1).
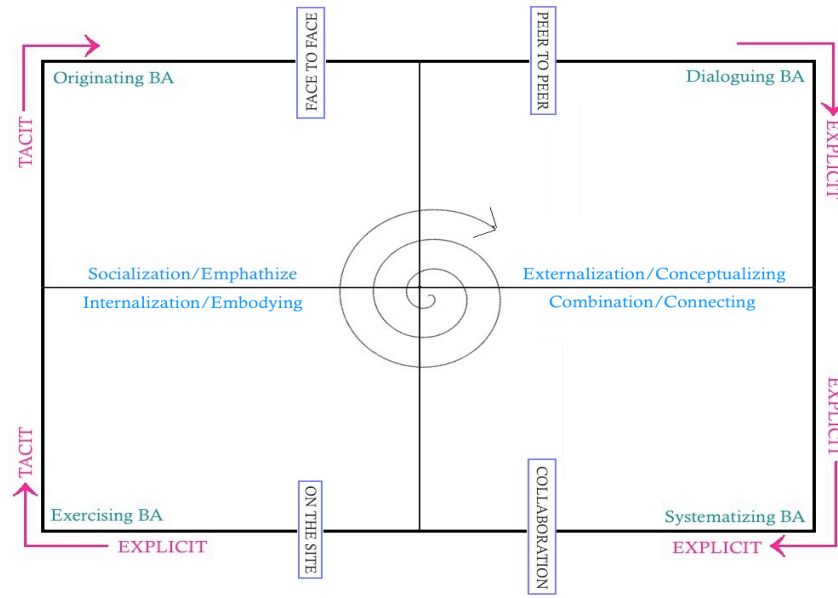
Figure 1: The SECI Process and Four Types of Ba (Source: Adapted from Nonaka et al., 2001).

In the next section I differentiate between tacit and explicit knowledge. Next I explain the knowledge-creation process by linking the SECI process to the four types of ba. Then, shift from knowledge creation to situated learning by focusing on legitimate peripheral participation (Lave & Wenger, 1991/2006).

Explicit and Tacit: Distinct and Complementary Knowledge

Explicit knowledge can easily be "expressed, captured, stored and reused" (Hildreth & Kimble, 2002, p. 4). There are many ways to describe this type of knowledge, including formal, systematic, context free, objective, and rational. This information can be expressed in words, sentences, numbers, theoretical approaches, books, manuals, and databases. For breakers explicit knowledge includes a musical canon (Schloss, 2009), dance moves and sequences, battle strategies, b-boy attitude and philosophy. This information is available from a plethora of learning aids such as books, videos (personal and commercial), and websites.

On the other hand, tacit knowledge exists within the individual. The roots of tacit knowledge are the individual's actions and commitment to a particular context. For Nonaka (2007), tacit knowledge has both a cognitive and a technical

dimension. He describes the technical dimension as a craft or profession (commitment). The term "know-how" describes "this kind of informal, hard-to-pin-down skills" (p. 165). A defining characteristic is the difficulty in articulating the principles that underpin tacit technical knowledge. As with technical skills, the cognitive dimension involves "personal knowledge embedded in individual experience and involves intangible factors such as personal belief, perspective, and the value system" (Paavola, Lipponen, Hakkarainen, 2004, p. 559). In general, personal knowledge is acquired during group activities (action). These mental models, beliefs, and principles shape in a profound way our perceptions of the world around us.

Nonaka (1991/2007) suggests something more than new knowledge is created when tacit moves to explicit knowledge. For him, conversion "is really a process of articulating one's vision of the world-what it is and what it ought to be" (p. 166). When people invent knowledge, they reinvent themselves, their culture of practice, and even the world.

The Knowledge Spiral: Learning at Increasingly Higher Levels

Socialization (tacit to tacit). For Nonaka et al. (2001) "a quintessential example of socialization is traditional apprenticeship" (p. 16). Tacit skills are difficult to formalize, therefore transferring knowledge relies on physical proximity. During a shared enterprise or activity, the newcomer learns through observation, imitation, and practice. Joint activities also include talking over meals and spending time together. Buddha adds:

> Partying at someone's house, watching the battle footage, or talking trash.
> The bravado side of tacit learning—young cats got to be careful, if they
> are new in the game it is inappropriate for them to talk too much trash or
> have too strong opinions about someone else's skills. (S. Leafloor,
> personal communication, July 12, 2011)

In these social contexts, individuals transfer tacit knowledge, create a common understanding and mutual trust.

Socialization, however, has its limits if restricted to accumulating tacit knowledge. When the apprentice learns the master's skills and neither "gains any

systematic insight into their craft knowledge," the practice or enterprise does not advance (Nonaka, 1991/2007, p. 165).

Externalization (tacit to explicit). Once tacit knowledge becomes explicit, the phase central to knowledge creation has been set in motion. While a shared experience fosters knowledge creation, language triggers the externalization phase. Individuals express their ideas and images using paradigmatic and or narrative thought (Bruner, 1986). The paradigmatic view of reality uses logical argument to uphold truths that are universal and context free. In contrast, the narrative view of reality attends to the particular and its context. Nonaka et al. (2001) explain, "The articulation of tacit knowledge involves techniques that enable one to express his or her own ideas through deductive/inductive analysis and through abduction [creative inference] with figurative language, for example, metaphors, analogies, narratives, and visuals" (p. 16). When ideas and images are communicated to the group, a dialogue ensues. Nonaka et al., borrowing from Bohm (1980), emphasize that externalization has strong support when all participants benefit as they listen and contribute to the dialogue.

Spencer (n. d.) highlights the positive aspects of face-to-face communication. They include sharing beliefs, learning to express one's self clearly and coherently, receiving instantaneous feedback, and simultaneously exchanging ideas. "Externalization is a process among individuals within a group" (para. 6). In other words, both the individual and the group find a way to express the inexpressible; gradually, a new collective perspective emerges that integrates diverse individual perspectives (Nonaka, 1991/2007).

Combination (explicit to explicit). This phase involves three stages that integrate fresh knowledge into more complex systematic knowledge. First, information that has been collected within or without a community is exchanged and combined. Second, the community disseminates the new explicit knowledge through meetings, telephone conversations, e-mail, video recordings, documents, or the Internet. Third, the captured knowledge is organized by the community to make it more usable. An efficient and effective phase sorts, adds, combines, and

categorizes the existing and new explicit knowledge. Once the prevailing body of knowledge has been reconfigured, then knowledge transfer occurs among the individuals and groups across the culture of practice.

Internalization (explicit to tacit). Nonaka, Toyama, & Hirata (2008) understand this stage as praxis "where knowledge is applied and used in practical situations and becomes the basis for new routines" (p. 24). However, an individual must do more than simply imitate explicit knowledge. To internalize it as expertise of one's own requires action, reflection, and practice. Nonaka et al. associate this with Dewey's notion of "secondary experience," that is, an intellectual experience that includes reflection.

For Nonaka, Toyama, and Hirata (2008) internalization is a two-fold process where with a conscious mind individuals put something into practice. First, they make meaning by reflecting on what they learn from their actions "and simultaneously convert explicit knowledge into skill that can be used at will" (p. 24). In this manner, individuals enrich both the cognitive and technical dimensions of their embodied tacit knowledge base. Second, the new thoughts and or skills crystallize as individuals learn by doing.

Ba and Knowledge Creation: Interacting in Physical or Virtual Space

A novel idea neither exists in a vacuum until eventual discovery, nor in the head of the lone heroic individual who seizes upon it during an Aha! Moment. For Nonaka et al. (2001) innovation is "intangible, boundaryless, and dynamic and cannot be stocked, it has to be exploited where and when it is needed to create values" (p. 18). They argue that face-to-face interactions create knowledge through situated action in a particular time and place. They call such space ba, a Japanese word that denotes physical space, a specific time and space, and the space of interpersonal relationships. "In terms of the theory of existentialism, ba is a context that *harbors meaning*" (original emphasis, 2001, p. 19). In addition to being physical, ba can be virtual and mental, or any combination thereof. The most important aspect is interaction.

Ba supports the four phases of knowledge conversion (socialization, externalization, combination, and internalization) by way of four interactions:

face-to-face, peer-to-peer, collaboration, and on-the-site. These actions personify the four types of ba: originating, dialoguing, systematizing, and exercising. Figure 2 (see page 56) categorizes some of my data into the knowledge creation process that consists of four modes of knowledge conversion (SECI) and the four types of ba.

Originating ba (empathizing face-to-face). When people share their emotions, experiences and mental models, they lower their defences. Through sympathy and empathy they remove "the barrier between self and others" (Nonaka et al., 2001, p. 20). Nonaka, Konno, and Toyama (ibid) use the following to describe the guiding principle of this socialization process: I love therefore I am, pure experiences, ecstasy, or being thrown into the world. For them the knowledge-creating process begins with originating ba because from this field emerges "care, love, trust, commitment, freedom, and safety" (p. 20). Because converting tacit to tacit knowledge originates from face-to-face experiences, the socialization phase joins originating ba.

Dialoguing ba (conceptualizing peer-to-peer). The conversion from tacit to explicit arises from the interplay between thought, time, and physical space. Ideally, a group comes together that blends peers whose specific knowledge and capabilities engender productive discussion. As the group shares mental models, a person contemplates and revaluates her or his own models. In this manner, individual skills and mental models are converted into collective terms and concepts through dialogue. According to Buddha, the b-boy dance practice uses metaphors all of time such as short role-playing (S. Leafloor, personal communication, July 12, 2010). In the next chapter, when discussing the cipher practice where dancers compete while they co-create a pantomimic narrative, I return to BBBGs use of metaphors. The point here is that dialoguing ba relies on the extensive use of metaphors. When individuals use them they demonstrate "sensitivity for meaning and the will to make tacit knowledge explicit" (2001, p. 20). For this reason, dialoguing ba is associated with the externalization phase.

Systematizing ba (connecting collaboration). The combination phase links systematizing ba. Rather than sharing real time, interactions occur in a

virtual world as explicit knowledge combines with existing information. For example once they are systematized, new concepts travel throughout a collaborative environment in the form of various media types (e.g. visual, audio, speech, tactile).

Exercising ba (embodying on-the-site). Once again people share time and space as their on-site interactions use explicit knowledge in real-life or simulated activities. Exercising ba accentuates learning by self-refinement through "on-the-job training or peripheral and active learning…Exercising ba synthesizes the transcendence and reflection through action, while dialoguing ba achieves this through thought" (2001, p. 21).

Interaction is the most important aspect of ba. As a medium that harbors meaning, ba concentrates communal knowledge with the people who own and create that knowledge. When ba and knowledge creation interpenetrate, the process creates a new boundary of interaction. "To participate in a ba means to get involved and transcend one's own limited perspective or boundary…Ba is the world where the individual understands him- or herself as a part of the environment on which his or her life depends" (2001, p. 19).

Knowledge and Learning: Embedded in Ba and Social Practice

The theory of organizational knowledge creation describes explicit knowledge as information and facts that have been decoupled from ba. While information is embedded in media networks, knowledge is embedded in ba. Knowledge owned and founded in interpersonal relationships is based on the collaborative nature of learning that subsumes intentional and unintentional instruction. Knowledge creation is context specific. Therefore, the process needs time, space, and human relationships. The context can be physical, virtual, or existential. In this shared place participants interpret information, construct meaning, and create knowledge through interactions. For Nonaka, Toyama, and Hirata (2008), this field is ba; a shared space containing a worldview that guides creative interaction and organizes the social conditions for participation. In this shared space, "relationships emerge among individuals, and between individuals and the environment" (p. 34).

TACIT   Face-to-face   Peer-to-peer   TACIT

TACIT

Originating Ba

Dialoguing Ba

EXPLICIT

We spent hours thinking about
a move.
I never saw it but heard about
the move, so I figured
out how to do it.
None of us were experts, once
we learned on our
own, we taught each
other.

I could not refuse it.
We were angry young men
healing together.
Crew as family.

TACIT

Socialization/Empathizing   Externalization/Conceptualizing

Internalization/Embodying   Combination/Connecting

Videos were worth their
weight in gold.
We men danced together in
nightclubs, the way
women do.
When the Internet came out,
we connected there.

Practice: individual, crew, &
open.
Perform: ciphers, battles, &
professional.
Teach: schools, studios,
community centers,
parks, & residences.

EXPLICIT

Exercising Ba   On-the-site   Collaboration   **Systematizing Ba**

EXPLICIT   EXPLICIT

Figure 2: Data related to learning the b-boy dance organized according to the

knowledge creation theory (Source: Adapted from Nonaka et al., 2001).

A case in point, Rogoff's (2003) concept of *guided participation* goes beyond instructional interactions and focuses on side-by-side arrangements, primarily between children and adults. Although distinct forms of guided participation exist around the world, they share similar basic processes. Children participate in the values, skills, and practices of their community in various forms of culturally guided activities. As they take on new roles and responsibilities, they are engaged in learning as a process of changing participation in community activities.

Jean Lave and Etienne Wenger (1991/2006) support a similar belief where learning is embedded in the social. They propose legitimate peripheral participation (LPP) as an analytical viewpoint to describe "engagement in a social practice that entails learning as an integral constituent" (p. 35). LPP acknowledges the dialectical relation between individuals and the collective they are absorbed into as they absorb the sociocultural practice. For Lave and Wenger, LPP "provides a way to speak about relations between newcomers and old-timers, and about activities, identities, and artifacts, and communities of knowledge and practice" (p. 29).

Social Activity: From Creating Knowledge to Creating Community

In previous sections I explained in theory how knowledge spirals through a community. With knowledge as the centerpiece, I described the conversion from tacit to explicit in a dynamic process moving through four phases: socialization, externalization, combination, and internalization. Each phase did not occur in a vacuum; rather they were bound to a context that contained a quality of ba: originating, dialoguing, systematizing, and exercising. Concurrently, the process and the place synthesize new knowledge. I now shift the focus to the centripetal movement individuals experience during the continuous self-transcending process of knowledge creation (Nonaka, Konno, & Toyama, 2001).

For the remainder of this chapter, I make prominent the individual as newcomer to an activity who gains the necessary skills, habits, and knowledge to become a full participant in a social practice. For Lave and Wenger (1991/2006) co-participation in a community of practice actualizes this transformation. As

with the knowledge spiral, LPP has no real center. The locus always moves due to the reciprocal relation between persons and practice.

Legitimate peripheral participation reflects the then growing interest to theorize learning as part of a social activity. Lave and Wenger were dissatisfied "with the asocial character of conventional learning theory and its inability to account for how people learn activities, knowledge and skills without engagement in formal educational or training processes" (Fuller, Hodkinson, Hodkinson, & Unwin, 2005, p. 50). Their viewpoint incorporates three concepts –practice, person, and social world– that are salient to my thesis. I now briefly summarize these concepts to frame the upcoming discussion of the b-boy cipher. In the next chapter, I analyze the cipher as a general example of LPP and as a particular example of the internalization phase of the knowledge conversion process (exercising/embodying).

Situated Learning: Social Transformation and Changing Practice
The Practice: The Lived-in World and Everyday Activity

A major idea built into the concept of LPP is learning in human experience. Throughout the slim volume, *Situated Learning: Legitimate Peripheral Learning*, Lave and Wenger refer to the lived-in world. For them, learning is situated in trajectories of participation. These pathways both saturate learning with meaning and are situated in the social world. For this reason, LPP helps us better understand "a fundamental distinction between learning and intentional instruction" (1991, p. 40).

We belong to a community and the fact of belonging may ignite learning. When embedded in material and social relations (Lee & Roth, 2003), our learning is bound to ever-changing interrelated social practices in the world at large. LPP bridges the nexus of relations otherwise perceived as unconnected. The whole person as a practicing member is an agent of activity for the community; both the person and the community experience a multiplicity of relations with the world at large. The relational interdependency links meaning and action in the world.

The nexus connects a group of mutual constituents –agent, activity, and the world. Participation binds the whole person to the activity in and with the

world. Participation emanates from the situated negotiations and renegotiations of meaning in the world. Through engagement in everyday activity, "learning is an integral and inseparable aspect of social practice" (p. 31). Above all, whole persons, commonplace actions, and the world as experience are perpetually entangled in the ways we speak, know, and learn.

The Person: An Evolving and Entangling Identity

LPP conceptualizes learning as inevitable when a person belongs to a sociocultural community; the individual's intellectual development correlates to learning as construction of an identity. As more-intensive newcomers become full participants two possibilities may occur. First, they become increasingly adept pursing the activities, tasks, functions, and understandings originating from the praxis. Second, they become persons-in-the-world, members of social communities. Buddha associates this to learning about life by being a b-boy through a sustained and longstanding pursuit of b-boying and the collective efforts practiced in the b-boy culture (S. Leafloor, personal communication, July 12, 2011). Put another way, "learning thus implies becoming a different person with respect to the possibilities enabled by these systems of relations" (Lave & Wenger, 1991/2006, p. 53).

Fuller et al. (2005) explain that the knowledgeable practitioner not only commands and applies the necessary understanding, know-how, and discourse "but who, through their membership has become a full participant in the cultural practices of the community" (p. 52). If so, then peripheral conveys participation as part of a collective effort whereby "all members' participation is legitimate and peripheral to (or always just a part of) the ongoing functioning of the whole" (Lee & Roth, 2003, p. 5).

Lave and Wenger theorize that the whole person relates to the activity and its social community. Through sustained participation in community-defining events, members evolve from newcomer to old-timer. In doing so, they become increasingly entangled in the relations that constitute the community of practice (Lee & Roth, 2003). For Lave and Wenger (1991/2006), learning is both a condition for and an evolving form of membership. For them, identity is neither

fixed, nor determined. Rather, identities are defined through the "long-term, living relations between persons and their place and participation in communities of practice" (p. 53). As a person's identity grows and transforms, so do her relationships among fellow members, the practice, and the social organization and political economy of the communities of practice.

The Social World: Producing and Reproducing Change

Lave and Wenger expand the borders of learning beyond the immediate context furnished with action/interaction enacted by a teacher/learner dyad. LPP encompasses the broader forces shaping and being shaped by changing persons and changing communities of practice. Lave and Wenger identify these forces as shared cultural systems of meaning and political-economic structures. This expansive space opens a view onto the sets of relationships that are tangential and overlap over time.

Lave and Wenger consider the production of change pivotal to LPP. The enormous range of LPP raises issues about the production and reproduction of members' participation and identities, as well as of the structure of communities of practice. For Lave and Wenger this generates a host of questions about:

> The sociocultural organization of space into places of activity and the circulation of knowledge skill; about the structure of access of learners to ongoing activity and the transparency of technology, social relations, and forms of activity…. (1991/2006, p. 56)

Their list continues beyond places of and access to ongoing activity to consider the changing forms of participation and identity. For instance, over time through sustained participation a newcomer becomes an old-timer to the new entrants. From this perspective, another set of relations comes into view. The main idea is that LPP provides insights into the "problematic character," or the "fundamental contradiction" central to the production of change. Lave and Wenger describe this as "the *replacement* of old-timers" by newcomers (original emphasis, 1991/2006, p. 57).

They identify two implications caused by this contradiction: 1) sustained participation must involve conflict; 2) learning, transformation, and change are

intricately linked. Although the use of the noun "replacement" has dire overtones, it also symbolizes the generative process that results when this contradiction is resolved.

For example, Buddha represents the original generation of breakers. Today, his identity as an old-timer excludes him from being a master teacher of the moves. Younger breakers have replaced Buddha. In hiphop terms, Buddha comes from the old school and has been replaced by master breakers from the new school. Some dancers argue that new school breakers care more about power moves and acrobatics than they do about dance as an expression of individuality, a preoccupation held by old-timers.

At the same time, the breaking community regards Buddha as a master teacher of the history, philosophy, and mentality particular to both the b-boy and the hiphop cultures. Typically, his near-peers (who are teaching today's newcomers) seek him out to teach them these aspects of the culture. In this way Buddha embodies the generative process enacted by a community of practice producing its own future (Lave & Wenger, 1991/2006).

Learning Curricula

In general, communities of practices contain a constellation of lookout posts from which newcomers observe the culture of practice they have joined by their own free will. As they observe the enterprise functioning as a whole, they develop a general idea of the constituent parts of the finished product along with an uneven sketch of the novices, competent newcomers, and full practitioners enacting various levels of ability and responsibility. An extended period of legitimate peripherality combines observations and opportunities to practice into a fuzzy comprehension of the culture of practice that may include:

> Who is involved; what they do; what everyday life is like; how masters talk, walk, work, and generally conduct their lives; how people who are not part of the community interact with it; what other learners are doing; and what learners need to learn to become full practitioners. (1991/2006, p. 95)

Quite possibly these separate, yet complementary, insights create curricula pertinent to the differing interests, diverse contributions, and varied viewpoints members bring to and take from the activity. The learning curriculum characterizes the community, however "it is a field of learning resources in everyday practice *viewed from the perspective of the learners*" (original emphasis, p. 97). In contrast to teaching curriculum set by a governing body and mediated though an instructor, learners in social relations can set their own learning agenda and realize it on their own terms, in their own time.

Newcomers and old-timers chose to participate because the culture of practice holds personal meaning for them. Through the set of relations between an individual and the community, and among the individuals, the community is regenerated and the individual is changed. The culture of practice produces and contains an extensive range of tasks, understandings, and activities sufficient to individual definitions of "full" participation. In this manner, both the group and the individual have a say and a choice in what is done and what it means for the community and in the lives of each person.

Learning Metaphors: Converge and Diverge

Paavola, Lipponen, and Hakkarainen (2004) explain that the field of education and education research has developed a variety of learning theories that can be categorized into three metaphors: 1) learning as knowledge acquisition; 2) learning as situated or as participation in a social community; and 3) learning as knowledge-creation. Paavola and Hakkarainen (2005) base their knowledge-creation metaphor for learning on three "theories of innovative knowledge communities" (p. 539) that examine "learning and [innovative] inquiry as a process of knowledge creation" (Hakkarainen & Paavola, 2009, p. 67).

Lave and Wenger focus on how newcomers become old-timers by participating in a culture of practice, while Nonaka et al. focus on the advancement of knowledge. As learning metaphors, their theories are roughly divided into participation and knowledge-creation metaphors. First, I discuss ways in which their theories converge and diverge. Then, I summarize recent research by Paavola and Hakkarainen (2005) regarding the knowledge creation

metaphor as an emerging epistemological approach to learning. Their work goes beyond characterizing learning as knowledge acquisition, and learning as participation or situated in a social context. They distinguish a third metaphor that shares aspects with the two learning metaphors above, yet focuses on an aspect both the acquisition and the participation approaches have not focused on: innovative knowledge communities. This third metaphor, "the knowledge-creation model strongly emphasizes the aspect of collective knowledge creation for developing shared objects of activity" (2004, p. 558). Paavola and Hakkarainen sparked my interest in using participation and knowledge-creation metaphors in tandem to better understand how people learn in systems decoupled from formal education or professional training processes.

Learning in Tandem: Fixed Community and Unfixed Ba

A point of convergence found in the two theories, organizational knowledge-creation and legitimate peripheral participation, concerns conventional explanations for the internalization of learning. The authors for both theories argue against claims such as, "All learning takes place inside individual human heads" (Simon, 1991, p. 125 as quoted by Nonaka et al., 2008). Lave and Wenger view traditional learning theories that position the learner as a container for taught knowledge as paying too little attention to "the place of learning in the broader context of the structure of the social world" (1991/2006, p. 49). Recall that for Nonaka et al. (2001, 2008) internalization combined with exercising ba was more effective when individuals practiced the new skill, habit, or knowledge on-site under the watchful eye of more experienced practitioners and with the help of others in the process of learning the new skill. This resembles Lave and Wenger's community of practice (1991).

This shared perspective raises the important points of divergence between communities of practice and knowledge creation. Nonaka et al. (2008) use ba to explain the differences. In ba, participants share a perception and cognition of a mutual existence; from here—a shared place of thinking, sensing, learning, and reasoning —knowledge emerges. In this manner, "participants in ba relate to the ba" (p. 37). However, members of a community of practice belong to the

community; individuals relate amongst themselves and to the community in a dynamic on-going process of production and reproduction. Although stable, it takes time to learn about the community and to become a full practicing member. In contrast, ba ebbs and flows according to the needs of the participants. Unfixed, ba's fluid boundaries change quickly, "while the boundaries of a community are firmly set by the task, culture, and history of the community" (p. 36).

Three Learning Metaphors: Acquisition, Participation, and Innovation

The acquisition metaphor rarely recognizes contextual effects on learning, preferring to separate the mind from the material world, as well as from the cultural and social environment (Fodor, 1981). This approach prioritizes knowledge as schemata contained in an individual mind that the learning process has placed there.

Paavola and Hakkarainen (2005) argue that the participation metaphor to learning emphasizes adapting to present day cultural practices and does not pay attention "to creative changes in these practices" (p. 5). In contrast, the knowledge-creation metaphor enfolds individuals, communities, and the way people collaboratively develop shared objects and artifacts. For them, this third approach conceptualizes learning as innovative knowledge communities that develop common objects of inquiry based on advancing communal knowledge. Their work reviews three models of innovative communities: Bereiter's knowledge-building, Engeström's expansive learning, and the knowledge conversion model by Nonaka.

All three models emphasize striving for something new. For Paavaola and Hakkarainen (2005), Bereiter's model is rooted to the idea of progressive problem solving and dynamic expertise. Where knowledge-building highlights the ways human experts constantly strive "to advance beyond present knowledge" (p. 11), Engeström stresses continually striving to render qualitative changes in activity systems. Expansive learning aims "to [transcend] the given context to create new ones" (p. 11). As we have seen with the knowledge-creation model, the explication of tacit knowledge arising from face-to-face interactions advances knowledge. All three models of innovative knowledge communities concentrate

on the ways communities systematically develop specific objects of activity through people interacting with others and the environment. Paavola and Hakkarainen's emerging approach to learning directs our attention to "interaction *through* these common objects (or artifacts) of activity" (original emphasis, 2005, p. 545). They use the term trialogue to describe the notion underpinning the third learning metaphor:

> Trialogue means that by using various mediating artifacts (signs, concepts, tools) and mediating processes (such as practices, or the interaction between tacit and explicit knowledge) people are developing common objects of activity (such as conceptual artifacts, practices, products, etc..
> (p. 546)

Creation and Participation Framework: B-boy Pedagogy and Ciphers

The knowledge-creation metaphor helps us understand the ever-changing interplay that bonds human learning and cognition to the role and nature of knowledge. As described in the beginning of this chapter, the theoretical framework I constructed brought together Ikujiro Nonaka's knowledge conversion process and Jean Lave and Etienne Wenger's analytical viewpoint, legitimate peripheral participation.

In the next chapter I use these two theories to analyze the raw b-boy cipher. My theoretical account matches aspects of the cipher practice to the LPP theory and to the internalization (exercising/embodying) phase of knowledge creation for two reasons. First, I work to better understand how Buddha interacts with the social world –through b-boying– by using dance and music (mediating artifacts) along with dance performances, competitions, and freestyle ciphering (mediating processes) to develop the b-boy ways of being and habits of mind (common objects of activity).

Second, I demonstrate that LPP confines researchers to portrayals of learning as social practice. By considering LPP as a subset of knowledge creation, researchers can study how hiphop practitioners have created knowledge with little or no institutional support. By using a learning theory and a knowledge-creation theory to analyze the b-boy cipher, I address a gap that occurs when Paavola and

Hakkarainen compare models of innovative knowledge communities to concretize their knowledge-creation metaphor. At the same time, I support their research aim to produce new conceptual means to analyze and understand innovative knowledge communities. I believe the knowledge-creation metaphor opens new perspectives on b-boying and hiphop. This theoretical vantage point may contribute to future research that seeks to better understand how a neighbourhood activity, created over thirty years ago by and for some South Bronx youth, has matured into a worldwide cultural practice produced and consumed by and for many of today's youth and adults.

Chapter 5. The B-boy Cipher: Product and Process

> Cypher battles are for free. It is raw. Only the people in the Cypher can
> see it. There are no rules or time limits. This is truly where a b-boy's style,
> technique and confidence are put to the ultimate test. (Dyzee, 2011, Bboy
> Etiquette Don't Do's, #2)

In this chapter I provide some descriptions shared between the b-boy cipher and the theories explored in the previous chapter, and show how the secondary data collected from three sources support my ideas. First, I use data published by Johnson (2009), Stevens (2008), and Schloss (2009) that they collected during personal interviews with b-boys and b-girls. With the exception of cipher definitions cited by Johnson, I chose data taken from interviews with b-boys and b-girls who have been dancing between 10-30 years and are still active in the hiphop culture. Whenever possible, I paraphrase the investigators' analyses to build on their understandings as they relate to my exploration of the freestyle cipher. Second, I examine material posted on the Internet by and for breakers. In particular, I analyze a document written by B-boy Dyzee (quoted above) and posted on the website b.boy.org entitled, *B-boy Etiquette 101*. Third, I quote Buddha at length, especially in the latter portion of this chapter when I interpret his data based on Nonaka's (1991) knowledge creation theory.

I organize this chapter by presenting the data, then analyzing and discussing possible interpretations. I follow this pattern throughout as I turn from one central idea to another to show that aspects of the b-boy cipher intersect with my theoretical framework. By using primary and secondary sources organized as raw data, analysis, and discussion, I describe the b-boy cipher as an example of legitimate peripheral participation *and* of the internationalization/exercising phase of the knowledge conversion process. Then, I discuss how the cipher represents the self-transcending process that spreads completely throughout the knowledge-conversion process (Nonaka, et al., 2001). This discussion suggests that the b-boy cipher as a hiphop practice has the potential for dancers to experience a conscious readiness to change. Last, I demonstrate how Buddha

broadens this state of readiness situated in the dance to life beyond the b-boy culture.

The Raw Cipher: Multitudinous Meanings

The definition of a raw or freestyle cipher corresponds to the time and space that situates the dance circle. The type influences its significance: warm-up, rehearsal, competitive, or improvisational. Cipher energy depends on the interaction between dancers and spectators. Their interplay determines whether the cipher remains a rehearsal or teeters into a competition then totters into a dance narrative, or simply fades away as another pops off in a different area of the same place. Johnson collected an assortment of cipher meanings cited by BBBGs that branch into nouns or verbs. She categorized them into three sets of definitions: practical, affective, and the verb, "to cipher" (2009, p. 3):

1) cypher [sī′·fer]: n. at least two practitioners, some spectators, and a music source. (Jihad, Third Sight, Los Angeles); the imaginary space or circle a b-boy creates in his mind to battle his opponent (Trac 2, Star Child La Rock, Bronx); a self contained space, where there's no escape for the energy (Krazy Kujo, Soul Patrol, Burbank); a cypher is when people get together, take turns, and the music's playing non-stop (777, Street Masters Crew, Bronx); the stage where you go to show off or the battleground (Brooklyn Terry, Elite Force Crew, Brooklyn/ Tokyo).

2) cypher: n. the heart of breaking. (Ana, Fraggle Rock Crew, Seattle); a meeting of souls, getting together as one, and taking over (Aby, TBB Crew, Bronx); it's spiritual going back to the motherland, you know whether it was to communicate with gods or for better crops or something (Ness4, Zulu Kings, Bronx); energy, spirit, emotion, confronting fears, confronting your own demons, self-testing, and self-release that can make or break you OR there's a whole circle and we're channeling this energy (PoeOne, Style Elements/ Zulu Kings, Los Angeles).

3) cypher, to: -ing v. you got to listen and know the music and also know
how to break to the music where every thing you are doing is to the
beat (Leanski, Floor Lords, Boston); it must entail a rawness and a
powerful energy of respect, competitiveness and love and passion for
what your doing or what your counterpart is doing (Genesis, Flowzaic,
London); there's always drama of some sort (Slinga, KR3Ts, Queens).

Measured dimensions and intervals of time accompany Stevens' (2008)
definition of the cipher in the public realm. This is the unequivocal moment when
the crowd spontaneously moves into the shape of a circle creating "a dance space
in the middle that spans about 16'x20'. Audiences are usually more than two
people deep…Individual breakers take turns, an average of 30 seconds to three
minutes long, 'freestyle' dancing or improvising in the circle" (p. 123 & p. 124).

In the blog-series that narrates his first year learning to break, Wilburn
associates Schloss' cipher definition (see p. 15) with his personal experience. He
explains:

The cypher is not just a place where b-boying takes place, but an integral
part of the dance's identity: you can't have real breaking without jams to
break at, and you can't be a b-boy or b-girl without cyphering. The cypher
is a microcosm of both the dance itself and the social movement it
represents. Like b-boying, it creates a dialog of both competition and
collaboration. And like hip-hop, it's a way for practitioners to impose a
new interpretation onto their surroundings--to *remix the environment*,
effectively, into a space of their own. (Wilburn, 2010, final paragraph)

Wilburn's dense definition contains two features that are consistent with the
experience of a freestyle cipher: 1) the performance arena and 2) competition.
Quite possibly when reduced to qualia, the properties of existence organic to the
cipher, these may never carry over into the classroom. I return to this point in
chapter six. The philosophical term 'qualia' expresses the characteristic feel of an
experience. For example, what it feels like to see an organized battle differs from
what it feels like to see a cipher battle. According to the *Internet Encyclopaedia of
Philosophy*,"The qualia of these experiences are what give each of them its

characteristic "feel" and also what distinguish them from one another" (n. a., n. d., para. 1). Traditionally, qualia make explicit "intrinsic qualities of experience that are directly available to introspection" (ibid). For this reason, although BBBGs have not reduced the cipher to a singular definition, their multiple meanings branch into a product (noun) or a process (verb). I now explain two features that characterize the cipher experience: the performance arena and competition.

The Cipher and Legitimate Peripheral Participation

Performance Arena: The Appearing and Disappearing Cipher

In the first chapter, I highlighted the cipher's portable transient capability. Unlike the proscenium stage, the cipher does not require advance booking, staff, technicians, and nearby parking. The bare necessities are a minimum of two dancers, some spectators, and music. The musical source does not necessarily rely on playback devices, or electricity. For instance once during a pit stop on a trip to the Ottawa urban art festival *House of Paint*, in the parking lot of a coffee and donut shop, a short-lived cipher between three breakers popped up to the accompaniment of a talented beatboxer. (The art of creating beats and rhythms using the human mouth, beatboxing, or vocal percussion, consists of a range of drum, bass, and sound effects.) In Braunschweig, Germany in October 2006, a local train station housed an after party attended by thousands. Johnson (2009) recounts that the breakers "flooded the train station, forming little cyphers throughout the spacious main corridor. By 3:30 am, not too long after I arrived, the DJ packed up, leaving only a drummer to provide the rhythms for the ciphers" (p. 5). The cipher "appears when and where it is needed, then melts away" (Schloss, 2009, p. 99).

An everyday activity in the lived-in-world. The imaginary line that divides the performance arena and the spectators lies within the circle formed by the surrounding crowd. The buffer zone protects the pressing crowd from the dancers' velocity because contact could injure one or both. Dancers appear from and disappear into the crowd as they continually cross over into the performance arena.

Generally, professional dancers perform on the proscenium stage that has an invisible wall through which the audience observes the stage. Unlike professionals, b-girls and b-boys never break the fourth wall to address the audience. The cipher is "a dance between dancers, not intended to be seen on stage, as a performance" (Stevens, 2008, p. 123). Therefore, there is no audience observing from the other side of a window created by the proscenium arch. The cipher occurs in the lived-in world. Both the people and the community of practice experience a multiplicity of relations with the world at large. I am referring here to an idea central to LPP, the human experience of learning, distinct from intentional instruction. The cipher appears anywhere at any time, and so too does the learning embedded in this social practice. In many ways, the whole person or the agent of activity for the community decides when to dance, when to observe, all the while constantly negotiating and renegotiating a cipher entry with the spectators. The opportunity to act in the world as a spectator and a dancer exemplifies participation as one way the b-boying culture absorbs learners as they are absorbing the cipher activity. When at the centre, dancers open themselves to the community's judgment of their improvised performance. From the periphery, the community evaluates the progress of the individuals' dance moves and sequences. These trajectories of participation (Lave & Wenger, 1991/2006) situate meaningful learning in the social world.

Johnson (2009) and Wilburn (2010), a scholar and a b-boy, refer to the cipher as a microcosm of the b-boy culture. In a sense, the cipher is one of many collective efforts attempted by breakers. The following description resonates very closely with the idea that LPP bridges the nexus of relations we mistakenly discount as being unconnected. Johnson's (2009) explanation evokes the structure of the social world:

> [The cypher] brings together disparate groups, competing interests, and artistic innovation in a shared cultural space where these elements mingle and sometimes clash. It also contains its own energy or force that breakers talk about as a necessary component to the cypher. Some breakers have stated that a circle's energy has gotten them to dance though they had not

planned to, or stopped them from dancing when they already were. A

cypher's force is invisible but impactful. (p. 2)

For Lave and Wenger (1991), participation energizes the nexus and binds the

whole person to the activity in and with the world. However when viewed beyond

the scope of participation, based on the BBBGs meanings above, the force or

energy of a cipher cannot escape the circle. The cipher functions as a medium that

channels a force; this transmits ba. From the perspective of the knowledge

conversion process, the staging area for the cipher and the interactions that

develop from this place are an example of embodying on-the-site, or the

exercising ba. The performance arena symbolizes a physical, emotional, and

existential place that harbors meaning. In that nexus of time-space dancers

orchestrate an ephemeral dance that stems from on-site interactions, an

improvised dance constructed from explicit knowledge exercised during a

real-life activity.

The Person and the Social World

Above we considered the cipher as a complex product that has

innumerable meanings based on the feelings or intrinsic qualities individuals may

articulate after some introspection. Continuing to view it as a product, we

considered the cipher as a situated activity that represents the human experience

of learning delinked from intentional instruction. I now turn our attention to the

cipher as a process that guides two types of competition: competing against

yourself and rivalry between contestants. First, I explore self-competition as

indicative of a person's evolving entangling identity. Second, I consider the

rivalry between contestants to denote the social world's inescapable (re)producing

changes. I continue to argue that the cipher represents the knowledge-conversion

process.

Evolving Forms of Membership: Battling Against Oneself

B-boy ciphers, like the dance form, are by nature improvisational

(Osumare, 2002). Earlier I referred to the two roles individuals may perform

depending on where they are situated in the cipher: the dancer at the center or the

spectator in the crowd surrounding the dancer. As individuals cross the imaginary

line separating the staging area between dancer and spectators, they shift back and forth between these two roles. Referring back to Johnson's (2009) list of definitions that distinguishes the cipher as "the heart of breaking", ciphering means an individual confronts inner demons, publicly testing and releasing the self under the watchful gaze of the community.

In the cipher hub, dancers think on their feet, improvise, draw on strengths under pressure, face inner fears and cope with one self (Schloss, 2009). Radio argues that soloists must remain present no matter how vulnerable they may feel. She explains, "Because as you improvise in front of people there is an expectation of performing and impressing, and somehow you have to learn to accept yourself through that flawed process" (Smith Lefebvre & Schnitzer, 2010). Her understanding resonates with Lave and Wenger's explanation that learning is both a condition for and an evolving form of membership. As a person-in-the-world Radio reinvents herself. She learns to become a different person within the realm of possibility fixed by the relationships entangled in the collective effort of the community (Lave & Wenger, 1991/2006).

Interpersonal and Intrapersonal Interactions

Another way to think about the person is by considering the circuitous process from newcomer to old-timer. An important distinction here combines two sets of relationships: interpersonal and intrapersonal. The first set uses the LPP learning theory to look at the interpersonal relationships between the newcomer and the community. The second, intrapersonal, utilizes the knowledge creation theory to explore the transition from apprentice to master. In this context, the 30-second to three-minute cipher performance becomes the moment when dancers encounter themselves.

Intentional instruction: an unreliable method to teach self-knowledge

Beginning with interpersonal relationships, according to Moise (2004) the circle has neither hierarchy, nor binary that separates the strong from the weak. As quoted by Stevens (2009, p. 174):

> The dancers enter and leave the circle and even the best among them will
> be evicted in the permanent circulation, outside all domination. The

challenge doesn't exclude the loser, who, drawing from his own strengths and those of the circle, can eventually become first. The roles reverse. If war it is, in the short time span of prowess, it's a war against oneself in the eyes of the onlooker (Moise, 2004, p. 23).

From this perspective, individuals absorb the breaking cultural practice that promotes publicly displaying your individuality, your b-boy attitude. Buddha explains that once dancers learn the b-boy foundation, they are practiced at listening to one's self. From here, they discover both their individuality and their own style and character:

> Buddha: [Hiphop] heads [i.e., practitioners] talk about knowledge of self as perhaps the fifth element of Hiphop. We learn that it's a good thing to internalize not only the music—but to validate our life experiences into our [dance] character. This creates a sort of inner strength and confidence to advance to the next level in a Cypher: Dancing for you—not others. (S. Leafloor, personal communication, July 12, 2011)

South Bronx native Anthony Colon, also known as Karate Anthony who has been a b-boy since 1980 (Ohrstrom, 2008), articulates this belief:

> The b-boy attitude is not if you can do the moves. It doesn't matter if you can do 28,000 head spins. Who are you inside? … Do you have the fire? When you have that [attitude] where you be like, 'you know what? This is *me*. This is who I am. This is how I'm coming. And you wanna take what *I* got? Let's go. To the *death*. (Schloss, 2009, p. 109, emphasis in the original)

For Karate Anthony, the b-boy attitude is a matter of life and death. According to Buddha, the b-boy attitude quite often is a public performance of street bravado. Initially this attracts youth to the dance. Gradually, the b-boy culture becomes a place for b-youth to learn the aesthetic as they learn about themselves. Buddha explains:

> For guys, we still have the need to be cool and tough and with street bravado. Like kind of an edge to us, I'm not a fucking nerd. I am aware of my immediate street level situation. I am on my toes, I am so tied into

hiphop, ready to jump through that [barrier], I am culturally just tied into it. This is why it still and always has appealed to sort of you know angry young men. Half the time they're angry, they haven't sorted out their identity, or they've been bullied, or their identity has been crushed, or whatever. B-boying kind of communicates this safe buffer zone by having some street bravado, street skills, and credibility. I'm not sure it operates that way for young women who get involved. But, God, I don't think that has changed at all. (S. Leafloor, personal communication, December 2, 2010)

From Buddha's explanation angry young men are attracted to the dance because of the cool and bravado. Schloss (2009) suggests that as a whole the original hiphop culture appeals to adolescents drawn to music, dance, sports, "vandalism, fashion, various games and pastimes art, sexuality, the definition of individual and collective identities, and numerous other activities" (p. 11). For Buddha, the b-boy culture can become a safe buffer zone where b-youth, especially angry young men, learn who they are separate from circumstances that anger them or interrupt their human development. The b-boy culture has become for many b-youth a community and a practice they have chosen. In other words, they willingly devote their time and energy to the aesthetic and the lifestyle. Possibly they have found a place unlike any other where the cultural norm expects individuals to gradually develop self-knowledge and then to do something public about that knowledge. This perspective helps make sense of Wenger's belief that learning comes from "our deeply social nature as human beings capable of knowing" (1998, p. 3). The b-boy attitude then becomes a reference to our capacity or internal motivation to "know thyself." In this sense, intentional instruction designed to influence the ultimate source for the b-boy attitude–self-knowledge–becomes a near impossible task.

A drive for self-mastery actuates self-knowledge and vice versa. These are expressed during the activities, tasks, functions and understandings that originate from the breaking praxis. When breakers commit themselves to learn the b-boy way of life, they have taken learning into their own hands independent of any

external influence such as a guardian, teacher, principal, counselor, or policy maker. In turn, the b-youth both participate in a situated activity *and* create knowledge derived from their deep capability to know. My point here is that interpersonal relationships situated in a raw b-boy cipher have the potential to become a resource for b-youth to foster more meaningful relationships with themselves, rather than a context whereby they concentrate solely on absorbing and deepening prevailing cultural practices. When we extend the process of changing participation in community activities beyond learning as enculturation, we begin to look at "learning as a process of innovative inquiry in which the aim is [to] progressively refine knowledge artifacts and engage in long-term processes of expanding community's knowledge and competencies" (Hakkarainen & Paavola, 2009). When viewed from this understanding, personal knowledge becomes a source that individuals learn from and learn how to share with others (Nonaka, et al. 2001). The cipher can be considered a pedagogical activity where b-youth experience and experiment with converting tacit knowledge into explicit knowledge that they are willing and capable of sharing publicly.

   Personal knowledge broadens and reframes knowledge. I now turn to those moments when dancers encounter themselves. In conversation with one's self, the individual engages in the reflexive process. In some cases, the outcome of such a conversation may be the decision to learn a new skill, or to redirect behavior. Individuals devise a learning curriculum from the perspective of their everyday lives. The essential point is that participation fosters self-reflection so that by participating in the freestyle cipher b-youth gain commensurately singular insights into their nature; later on they may decide what to do about their insights.

   The cipher then becomes an important platform where individuals create self-knowledge during face-to-face interactions that are situated in a particular time and place. The internalization phase of knowledge-conversion is most effective when the apprentice does more than mimic dance moves and impersonate masters. During the two-fold process of the internalization phase, the b-youth dance and reflect on their dance performance. In other words, they dance with a conscious mind and make meaning by reflecting on what they learn from

their actions. The application of the knowledge conversion process in this context may look like the following. During the internalization phase, the dancers refine their skills as they learn by doing (i.e., situated learning); simultaneously they enrich the cognitive and technical dimensions of their expanding base of tacit knowledge. In this manner they gradually progress from apprentice to master. At the same time, breakers operationalize the central activity of the knowledge-creating community, which is to make their personal knowledge available to others (Nonaka, 1991/2007).

I have shown that breakers have several definitions for the cipher; these often depend on the way the purpose mutates from one to another. For instance, the cipher may begin as a warm-up then become a showcase; it may become both a pedagogical site and a space that harbors meaning. Depending on the interactions between the crowd and the dancer, the cipher may heat up into an all out no holds barred competition. On the other hand, the cipher may fade away due to either a lack of energy, or because it is time for the community to shift attention to a different activity. Breakers sum up the unstable inexpressible persistent magnetic ever-shifting momentum that a cipher radiates in a word: raw. Because the cipher means so many things all at once, I next consider the rivalry between dancers as an example of the problematic character central to the production of change that occurs in the social world (Lave & Wenger, 1991/2006). After that I treat the cipher as ba; that is, as a new boundary of interaction (Nonaka et al., 2001).

Rivalry: Orchestrated or Spontaneous Battles

The b-boy culture promotes three types of competition. We have already considered the first, self-competition. BBBGs refer to the second and third types—orchestrated and spontaneous, respectively— as a battle.

Orchestrated Battles: Advance Notice

In general community organizations or corporations sponsor the second type of competition. A few examples of the orchestrated or organized battle include the annual Montreal *Bragging Rites* held at the downtown YMCA; and the annual international *Battle of the Year (BOTY)*, now in its 20th year. Another

example of an organized battle features a dance crew or BBBG who "call out" another crew or dancer to battle. I consider these organized because although call outs are essentially spontaneous, they are scheduled in advance, unlike the third type that occurs in the heat of the cipher, the spontaneous battle. Typically, winners of organized battles take home a cash prize and or a trophy; compared to call outs where one's reputation is at stake.

Buddha narrates the life-changing battle between his newly formed crew, CFM, and the then reigning Dynamic Crew. They were a crew famous for, among other things, having one of the first windmills (A power move where dancers roll their torsos in a circular path as their v-shaped legs spin in the air.). Buddha narrates:

> In 1983 or '84, this spontaneous battle happened here where word went out that the Floor Masters, the new group, us, were going to battle the Dynamic Crew. It wasn't an organized event. A thousand kids jumped on buses, came from all over Ottawa to see it. Kid Quick swung a big electrical cord around, everyone backed up, and this huge battle happened. We basically roasted them: one-on-one, boom, boom, boom, boom, boom. Then we became the new superstars. Then, sad to say but they disappeared, they gave up after that. (S. Leafloor, personal communication, November 2, 2010)

From Buddha's description, it would appear that the Dynamic Crew consisted of five b-boys and that the radius of the staging area was the length of the extension cord. The efficiency of the communication network proves the event's importance because back then youth neither texted, nor twittered from pocketsize telephones. The disappearance of the Dynamic Crew is a reminder that the production of change can have dire consequences when newcomers replace old-timers. However, without access to Dynamic Crew we cannot be entirely sure why they stopped participating in the Ottawa street dance scene. Sometimes battles or competitions alter the social stratum of the b-boy community. For instance, if Buddha's preference that the Dynamic Crew continued to break, the configuration of the Ontario b-boy community might have accommodated two superior crews,

rather than one. Then both crews might have been newcomers to their status as a growing population of masters. While, the Ontario community might have expanded to absorb this new rank.

Spontaneous Battles: Adversaries in the Heat of the Cipher Moment

In the cipher, individuals hone their skills as they satisfy the collective effort to flaunt personal inventiveness (Banes, 2004). With so much at stake, it's no wonder ciphers explode into battle-mode between two adversaries. Spontaneous competitions materialize during the raw cipher. Here, nothing is official in the manner of an organized battle that holds to a system, such as the elaborate judging system used by BOTY. As we've seen, cipher energy continuously tips and tilts into showing-off to confronting fear to dramatizing, and so on. Stevens (2008) points out personality clashes or past grudges may surface. In Montreal these movement feuds typically last a couple of rounds. Then because ultimately BBBGs are there to dance, other dancers cut in to have their time in the cipher. In this manner, rather than an authority figure, the group diffuses the tension.

Asterlund, also known as B-girl Lynx, has been active in the Montreal community since the late 1990s; she and Radio belong to the same b-girl crew and are founding members of the Solid State dance collective. Lynx explains how a cipher can transition from practical to dramatic in seconds:

> So that's the thing about a cipher, you could go in, just to showcase your moves and do your thing, not thinking about battling, but then someone will take that opportunity-because you've put yourself in the circle, you've also opened yourself to other people battling you. So sometimes the open cipher will turn into a battle. And an unorganized battle, so there are no rules right? So anything goes. I think those battles are usually the realest, that's what's the most exciting battles to see because they are spontaneous and you don't know what's going to happen. (Stevens, 2008, p. 126)

Although there are no official rules or judges that decide between the winner and loser, there are unspoken rules. B-boy etiquette is the blanket term applied by Dyzee to envelop the rules.

The etiquette of spontaneous battles. Dyzee (2011), a Filipino native-Torontonian, has been breaking for over twenty years. He posted *B-boy Etiquette 101* on the b.boy.org website for two reasons. First, out of concern that today's breakers were "ignorant to the fact that there are certain ways to do things in bboying and hip hop in order to gain respect" (para. 12). Second, to pose and answer the question, "How does one start from the bottom and properly gain respect through the bboy and hip hop way of life?" (para. 17).

B-boy Etiquette 101 is divided into five sections: Respect, Battles, Circles and Cyphers, Competitions and Tournaments, Exhibitions and Matchups. Each section contains a quantity of steps that add up to a total of ten. Two sections include "don't do's" for cipher and b-boy etiquette. His text would benefit any educator interested in adapting the cipher as an instructional activity. For the purpose of this study, I examine "Step 7: Throwing Down in the Cypher" as a particular way the b-boy culture resolves the fundamental contradiction intrinsic to the production of change (Lave & Wenger, 1991/2006). As I have noted, social reproduction involves struggle. An earlier example of this was the call out battle between CFM and Dynamic Crew where we considered that the community must always have a different place where members belong and become as they progress toward greater participation (Lee & Roth, 2003).

By occupying the center, dancers transmit the subliminal message that they are the best. Naturally, b-youth watch what someone does, then, as Dyzee explains, "takes it and shows a better or different variation. This is part of a cypher mentality, and is the way of conversation to show who is the best" (Step 7). When a BBBG challenges another based on similar styles or moves, generally dancers do not take this personally because they have opened themselves up to this challenge. However, the unspoken cipher rule forbids challenging a legendary or an original generation BBBG. Dyzee instructs:

> You do not call them out; they are the ones to call you out! If they are the ones who call you out, then there is *so much respect* and *acknowledgement* given to you in the fact that they called you out (Step 7, original emphasis).

Buddha adds another reason: to publically teach a lesson. He emphasizes, "An OG might call out a younger cat who has been talking trash or is perceived as too cocky!!!" (S. Leafloor, personal communication, July 19, 2011). Dyzee refines the rule governing when b-youth are disallowed from challenging old-timers. When BBBGs are of equal status they battle one another out of respect. However other considerations come into play when there is an age difference. Younger dancers are encouraged not to challenge old-timers for two reasons: first, out of respect to those who have not danced for a long time and may be prone to injury; second, in acknowledgement for contributions they have made to the culture. Dyzee states, "you need to acknowledge…the fact that bboying might not be where it is today without these contributors" (Step 7). Schloss (2009) explains this cultural norm both memorializes the conditions and celebrates the creativity forbears developed to prevail as working-class inner-city youth of the 70s and 80s who lived in New York.

When challenged, most dancers wonder why they have been called out, especially when someone of "higher respect status" is challenged by a dancer with less "time in the game" whose skills are not on par with the old-timer's. According to Dyzee, contestants pose a series of questions:

> Do we have similar styles or moves? Does the person acknowledge who I am? Does he have a personal beef or grudge with me? And lastly, *Why is he disrespecting me*? You can then expect this person to be pissed off at you. He and almost all bboys who understand bboy etiquette will have lost all respect for you, except for the newbies that don't understand the way of the true bboy. (Step 7, original emphasis)

The b-boy culture has created an elaborate nuanced rule-bound system to resolve the implicit problem constantly present in a producing and reproducing social world. Legitimate participation involves gradually learning the behavior expected during face-to-face cipher interactions. Built into the intricate rules are justifications for replacing old-timers as long as this is done with the utmost respect for the dance, the community, the adversary, and ultimately, for one's self.

Ciphers are impermanent; they determine who is best in that particular cipher, on that particular day. In the cipher both the possibility of replacement and conflict endure. Upon entering the cipher, a dancer can neither predict, nor prevent whether the conflict shifts from interpersonal to intrapersonal, the reverse, or both. Despite the elaborate rules that govern battling in the cipher, anything goes. Although b-boy etiquette may protect old-timers from being replaced, the cipher guarantees no one is irreplaceable. Above all, anyone who crosses the line is fair game because the purpose of the cipher battle is to take away the opponents' confidence, to destroy the assertion that they are the best. From this perspective, ciphers represent the generative process.

A LPP Cornerstone: The Struggle to Fit In

For Lave and Wenger (1991/2006), sustained participation involves conflict tangled up with the web that links change, transformation, and learning. For them, the generative process resolves the fundamental contradiction associated with the production of change. This process is one cornerstone of the LPP theory. The ability to renew or reinvent both the community and the practice involves more than learning as an integral constituent; it involves change.

The production of change affords all participants infinite opportunities to progress toward the ever-moving locus. The non-linear unsystematic perpetual procession toward unachievable full participation means inevitably old-timers find themselves newcomers at higher levels of the functioning whole. Ideally, any breaker other than those who have been dancing since the mid-1980s would never challenge Buddha. In this manner, the community demonstrates their regard for his lifelong commitment and contribution to breaking.

More importantly, Buddha represents those original generation hiphop practitioners who developed the cipher as a collaborative process situated in a social structure, both of which supported knowledge advancement and innovation (Paavola & Hakkarainen, 2005). When asked, "As a master teacher, how do you teach the b-boy moves?" He immediately pointed out he was not a master teacher of the moves; but of the mentality and history relevant to the b-boy and hiphop cultures. In other words, Buddha has mastered the intangible tacit knowledge that

embodies the ways of being and habits of mind produced by hiphop practices. Accordingly, the rule-governed system that operates the cipher preserves the generative process crucial to the b-boy aesthetic and lifestyle.

Involved in Ba: The Cipher as Transcending Limited Boundaries

So far I have used LPP to explain how the cipher embodies the dialectic relations between individuals and the social organization they are absorbed into as they absorb its sociocultural practices. I now consider the cipher from the fourth phase of the SECI process: on-the-site internalization/embodying.

Ideally on-site activities inspire people to lower personal defences. Subsequently, individuals pass through "self-transcendence, as one has to find oneself in a larger entity" (Nonaka, Konno, and Toyama, 2001, p. 18). The internalization phase finalizes the process of innovation that relies on the conversion of tacit to explicit knowledge through situated action in ba. In this phase, individuals' personal realms of knowledge expand as they learn or refine new knowledge in practice. From here, the individual's enriched tacit knowledge can be shared during the socialization phase. Thus, a cycle of knowledge creation begins anew at a higher level than the previous cycle.

In this section, we will also see the phases overlap as I link transcendence to the spiritual connection experienced by breakers in the cipher. For Nonaka et al (2001), the self-transcending process permeates the knowledge-conversion process; while participation in ba means transcending internal limits or boundaries. This holds true in those times and places where the cipher connects all those present to a broader engagement with the world.

Internalization: A Different Way to Apprehend Tacit Knowledge

> To me that [bboy/hiphop] mentality of thinking on your feet, of adapting,
> of changing, that's kind of a modern mentality for engaging the world"
> (Buddha/S. Leafloor, personal conversation, November 2, 2010).

During the fourth phase of the knowledge conversion process, individuals access the group's and the organization's knowledge realm (Nonaka et al., 2001). A clear example of this is the breaking tradition that Banes (1994) traces back to b-boys from the Bronx and Harlem. These innovators of the dance form set the

standard that exists today where you make a style for yourself by topping the competition. During the battle, this involves using your dances moves sparingly because breakers consider repeating moves poor form (Schloss, 2009). More importantly, the standard demands simultaneously dancing better than your opponents and directly responding to their performances (ibid). B-boy Ru explains, "You did that? ...I'm gonna get down-boom boom boom-I'm gonna do what you did, and then what I'm gonna do is, I'm gonna reverse that and I'm gonna show you something that *you* need to respond to" (ibid, original emphasis, p. 108). By dancing a better or different variation of performances that preceded your entry, dancers join the conversation that revolves around "the ardour for the best man wins and don't come around here with no jive" (Mezzrow & Wolfe, 1946/1990, p. 231 as cited by Schloss, 2009, p. 99).

At the same time as BBBGs compete to be the best, the cipher group creates a story much like the party game where one person starts a story that develops according to each person's contribution. DJ Rammellzee explained, "If you see a guy acting like he's dead, the brother who went before him probably shot him" (Banes, 1994, p. 124). In this manner, personal knowledge commingles with the communal knowledge brought together by dancers who access this knowledge realm during cipher rounds. According to Banes, each dance sequence continues the pantomimic narrative; each dancer creates a new chapter. Schloss (2009) emphasizes the sophisticated narrative that emerges as the improvised performances respond to the song that happens to be played by the deejay at that moment. When interpreted from the knowledge conversion process, the cultural criterion—compete and co-create—effects both the dancer and the cipher group.

By competing, BBBGs internalize explicit knowledge through action and practice. As they elevate mental models and or technical knowhow, they expand their knowledge base. For instance, a b-girl watches her adversary with deep concentration as she catalogues and categorizes the dance sequence to reply to during her turn in the cipher center. Her opponent may perform an airflare; in response the b-girl may perform a high swipe and a 90s thus demonstrating she knows the evolution of the move. (The airflare comes from the gymnastic flare

move performed on the pommel horse. The dancer's hands are the only body part touching the floor as her legs whip around in a continuous swinging motion. There are at least 12 variations.) Now, the competition involves demonstrations of both the technical skills and the history of the dance vocabulary. In the event her rival's knowledge realm is less extensive, this new addition expands the communal knowledge present in the cipher. Buddha adds another example that involves using b-boy moves not to assess the dancer's vocabulary and history, but to size up the individual:

> Skilled battlers might use a move as bait knowing a more inexperienced b-boy will bite and feel he needs to respond. This means we know not only our opponent's moves—but their ego and mind. You can set up or trigger a situation without your opponent even knowing he has been played! (S. Leafloor, personal communication, July 19, 2011)

When b-youth internalize shared explicit knowledge they learn new understandings of the aesthetic, themselves, and the b-boy culture as a whole. For instance, novice dancers learn to enter and exit the cipher. Spectators learn how others personalize basic dance moves, or see a move for the first time. Uninformed spectators learn the various hand gestures and vocal responses that indicate disapproval or approval. Performers learn the difference between their appreciation and the audience's of their dance moves and sequences (Schloss, 2009). They learn to inhabit the music, to let the dance in while looking out. Everyone learns to look each other in the eye. We learn the art of public spectacle. As a dialoguing group, BBBGs actualize their "concepts or methods about strategy, tactics, innovation, or improvement" (Nonaka et al, 2001, p. 17). The group disperses and when individuals regroup in different places with different folk, they diffuse their learning throughout the organization. All things considered, the cipher produces and contains intrinsic interactions; these resemble interactions that occur in ba.

Feeling the Cipher: B-boying and Ba

For Nonaka et al. (2001) "to participate in ba means to get involved and transcend one's own limited perspective or boundary" (p. 19). Recall from

chapter four that ba can be defined as a platform –a place or a stance– from which people mobilize, utilize, and invent knowledge. Organizations create knowledge when "the knowledge within a particular individual [is] shared, recreated, and amplified through interactions with others" (p. 19). Therefore, interaction and ba are inseparable. The concept of ba represents the cipher that fuses the material and the immaterial. When perceived as a microcosm of the b-boy culture, the cipher represents the place where meaning coalesces in the time-space nexus.

When referring to the multiple meanings the cipher has for BBBGs Johnson states, "In many ways, what these metaphors of cypher energy have in common is their depiction of *a presence* that functions in the circle and in the dancer's memories" (Johnson, p. 87, my emphasis). The energy or memoried presence could also be perceived as tacit knowledge originating from the breakers commitment to b-boying and the actions natural to this context (i.e., socializing, dancing) (Nonaka, 1991/2007). Tacit knowledge is the combination of technical skills and cognitive models, beliefs, and principles that profoundly shape our lived experiences in the world around us.

Johnson's interpretation indirectly relates to Nonaka et al.'s (2008) argument that human beings with disparate intentions and values support different subjective viewpoints that are necessary for the creation of knowledge. They agree with Dewey that meaning cannot be reduced to a unique quality affixed to a specific event. Rather, meaning accommodates an assortment of ways that the event influences future activities and shared understandings. The cipher energy or force defines that particular cipher with those specific individuals in that exact sociospatial moment. Over time, breakers reflect on accumulated cipher events, then they use symbolic language to articulate what the cipher means to them individually and collectively. Some breakers describe the presence of cipher energy as spiritual connection.

Overlapping Modes of Conversion: Internalize and Socialize

For many breakers, one high point of the raw cipher is spiritual connection. The following text comes from PoeOne, his b-boy names stands for:

Peace On Earth Originality Never Ends. According to a biography posted by the
Passion Dance Studio:

> [PoeOne] is known worldwide as one of the most influential and
> respected B-Boys of his generation. A pioneer in his own right he has
> invented many moves that have since become standard within the
> foundational principles of Breaking and used routinely by the top B-Boys
> the world over. (Retrieved from http://passionstudio.com.au/breaking-
> workshop-poe-one/ n.a, n.d, para. 1)

Poeone's cipher description links aspects of b-boy spirituality to the knowledge
conversion process (Johnson, 2009, pp. 91-92):

> Let's say we don't know each other and you just walked to the cypher and
> you want to dance too. And I'm looking toward the floor of the person
> who's dancing and I'm feeling this beat. And a certain beat comes on, a
> new one and I just raise my hand like, "Whoah!," like "This is, this is my
> jam!" But then it's your jam too! And I see you raise your hand too! We'll
> look at each other and we just nod our heads like… And our eyes just give
> this certain connection. And the next thing you know, we know each other
> now. We know each other…that moment of connection. We just met each
> other there. And it's like that song united us. That energy united us. Then
> all of a sudden you throw down and I throw down. Then it's like afterward
> we're talking and the next thing you know we go eat. It's a connection
> with everybody, it's that connection. It's like…it's, it's…it's real. It's that
> one moment of being real. No mask on. You're finally out there.

Johnson highlights the moment when PoeOne connects to another human without
pretence to describe ciphering as a place where he exists and thrives "devoid of
his daily armor" (2009, p. 92). In addition, Johnson emphasizes the act of
fellowship that manifests by breaking or throwing down together followed by
talking and going out to eat together. United by the dance, their mutual
identification as breakers connects them to the culture, a connection that
"continues to exist beyond the momentary euphoria of dancing" (p. 93).

At the same time, PoeOne's description includes aspects of real-world knowledge acquisition that occurs in the internalization mode. Initially as PoeOne is watching a performance, a stranger enters the circle. A new song starts; their spontaneous outbursts coincide and they notice each other for the first time. They look each other in the eye, nod; they share a thought, a value (Nonaka et al., 2001). Recall PoeOne's declaration, "And the next thing you know, we know each other now." This declarative amplifies the moment of transcendence that occurs in the fourth phase when one finds oneself a part of a larger whole. Only then do the dancers dance. In this moment, they put explicit b-boy knowledge into practice as their skills and mental models crystallize into embodied tacit knowledge. Afterward, they talk, later they go somewhere to eat. These joint activities are part of accumulating shared experiences in the socialization mode. During face-to-face encounters, individuals transfer tacit knowledge, create a common understanding and develop mutual trust. That PoeOne chronicles a chain of events that leads almost naturally to a shared meal suggests the cipher has the potential to trigger a new spiral of knowledge creation.

Give Over Entirely: Place and Music Consecrate the Cipher

When raw ciphers pop off then the word "raw" sort of means, "Yeah, I'm feeling it. I'm feeling that circle. (Buddha/S. Leafloor, personal conversation, November 2, 2010)

Buddha presents the raw cipher as qualia, a feeling of the circle. His comprehensive definition of the cipher echoes previous quotes by BBBGs. Like them, Buddha emphasizes the magnetic pull of the cipher that draws him in despite an intention not to dance, plus a connection to the larger whole, and the music. Like PoeOne, he emphasizes that music brings about the spiritual connection experienced in the cipher. Buddha expands the present discussion to a conceptualization of spiritualism as part of "a repertoire of engagement tools" for life beyond the cipher. He does this by showing the reciprocal relationship between the music, transcendence, and engagement tools. First, he gives importance to being driven by the music compared to being unified by it. When driven by the music, breakers enter a zone where their authentic selves flow here

and now. In this transcendent zone, barriers that inhibit a heartfelt sensitivity to gifts received in the cipher dissolve. Buddha's intricate description of the raw cipher as the place where breakers connect to the heart of the dance concludes with his belief that those gifts become engagement tools that can be used to guide a mindset for participating in the world.

Attune with the Music

Now, I analyze the mutual influence Buddha attributes to music and transcendence. For Johnson (2009), competition in the raw cipher fuels innovations in movement. During this community-defining event, BBBGs engage in prevailing cultural practices as they refine individual skill sets: moves, style, rhythm, and improvisation. Yet, ciphers are as much about unrestrained improvised performances as they are "about a kind of unbridled intensity of single-minded presence in the moment" (p. 6).

> Buddha: I would say when I feel the most spiritual about my dance is when I totally felt I was totally there. There was no self-consciousness about it. What so ever. At that point, I am the most connected to the music… I'm in the zone and I'm not doing it to impress you. I'm not self-conscious of other people visually looking at me and that affecting how I, "Oh, do I look good? Do I look stupid?" I'm not thinking any of this. I'm just becoming one with the music….
>
> We would all define spiritualism differently, but I think connectivity through music and dance is a way of feeling kind of transcendent in some ways. In that I'm not worried about my day troubles that have gone on, I am not thinking about anything now. So I am giving my unbridled attention directly to feeling the music and feeling like it's flowing through me and coming back out. (S. Leafloor, personal communication, November 2, 2010)

Buddha points out that when one is driven by the music other possibilities appear. Where PoeOne portrays the cipher connection as being relieved of social masks, Buddha describes being unaware of the self, as wholly present in all totality. In a state of natural consciousness, Buddha feels the circle. Standing on the edge, the

music's centripetal force pulls Buddha inward to dance at the cipher center. Buddha comments, "I would close my eyes in a club and I would just freestyle for five minutes-boom boom with my hands, doing stuff just because I am so into it." Here, equipoise shows as his full immersion in the activity balances his energized focus (Csikszentmihalyi, 2008/1990).

Unbound from his own limited perspective represented here as unworried about day troubles, Buddha becomes a conduit; feelings flow through and from him. Nonaka et al. (2008) link ba to Csikszentmihali's flow theory "where others have observed a loss of self-consciousness in flow" (p. 36). The cipher activity becomes a place of discovery imbued with a creative feeling that transports Buddha into a new reality. The on-site interaction transforms him into a self more complex than he was before. As a flow activity, the cipher pushes him to higher levels of performance that lead to previously unimagined states of consciousness. Csikszentmihali explains, "When the flow episode is over, one feels more 'together' than before, not only internally but also with respect to other people and the world in general." (1990/2008, p. 41).

The cipher activity occurs in the fourth phase of the knowledge conversion process. The situated activity synthesizes real time, physical and acoustical space, people and their communal knowledge. This resembles ba: "Like a Petri dish for the cultivation of ideas, the ba is a temporary container for creative interaction guided by a particular worldview that establishes the conditions for participation" (Nonaka et al., 2008, p. 34). The cipher occurs in a place that harbors meaning. In ba, devoid of the atomistic self, existence is in relationship to others in a given time and place that organically concentrates resources (i.e., people and their communal knowledge). According to Buddha, this occurs when the physical and acoustical space consecrates the cipher (Schloss, 2009) and the dancer transcends selfhood, feeling the heart of the moment.

Heart Makes it a Dance

Buddha explains that the audience recognizes a natural genuine response to the music. They relate emotionally to those who vibe to the music.

Buddha: When you see b-boys who actually do that [transcendence], the audience recognizes it. You feel that. You feel the heart of it. And you know this is, well, we often talk about 'what is it?' Heart is really what makes it a dance and not just bendies and Chinese-circus-something. Heart.

You can represent your heart—which is a mix of who you are as a person—and try on different roles, characters, and stuff that comes out as you play theatrical things with your dance. Heart comes out in the look in the eyes, comes out in the smile that you give, the wink over here, a lot of the subtleties.

When b-boys are training to be power heads, or whatever, they are not worried about any of that shit; they are just worried about the athleticism of the next-crazy-generation move. You can appreciate that [the evolution of the dance move] but, you know at the end of the day when you see a ton of things, and you don't see heart then something is missing. I seldom remember dance moves and combos; I remember the heart. The ideal b-boy has both. They call them breakdancers in a derogatory way as opposed to a b-boy. (S. Leafloor, personal communication, November 2, 2010)

Buddha and Johnson (2009) specify that preplanned sets and performance crutches are irrelevant in ciphers. Also, both call attention to a bias or criticism that prevails in the b-boy culture. Johnson observes:

[Many breakers are critical of dancers] who can "rock the battle" in front of a panel of judges but cannot "rock the cyphers" after the competition is over. Despite that there are those for whom the reverse is true, those who can perform better in cyphers than at competitions or on stage, such breakers maintain a degree of respect that the former do not, though all concur that those who are able to shine in both arenas are extremely talented. (2009, p. 203)

She explains that ciphering demands the integration of kinesthetic knowledge and imagination that must give rise to an improvisational performance; therefore, ciphering "carries greater cultural weight" (ibid).

For Budda, b-boys and b-girls with heart harmonize aesthetic superiority with spiritualism. It follows that heart makes b-boying a dance. His metaphor extends transcendence to both the cipher and to the b-boy attitude. This brings a different meaning to the earlier emphasis that the b-boy attitude meant ciphering to the death as a strategy to preserve one's integrity.

To say that b-boying is a dance because it has heart symbolizes properties of existence organic to breaking. These qualia can be considered from Lave and Wenger's (1991/2006) conceptualization of whole persons-in-the world. In this case during their improvised dance, breakers try on different identities or social roles. They continually construct an identity as a changing person engaged in a community of practice. Conversely, PoeOne and Buddha cite qualia as immaterial connections such as looking into each other's eyes, smiling and winking, flowing to or united by the music. Above all, heart is the genuine or unmasked self that is motivated by a willingness to "lose oneself to be open to others… [to connect to people engaged in] real human activities, concretely present in space and time" (Engeström, 1999, p. 28, 36). From this interpretation, the b-boy attitude becomes less an absolute identity and more a conscious readiness to change.

Alert to Change

The thematic thread for this section concerns the process that creates a new boundary of interaction when ba and knowledge interpenetrate. Using the cipher as a model, I have described this process. Up to now we have followed Buddha's intricate description of the raw cipher. The explanation is predicated on heart as an important criterion to internalize the understandings grasped in the raw cipher. Again, driven by the music b-girls and b-boys heighten the energy that feeds off of and into the communal story arranged according to individual improvised performances. Situated in the here-now flux, many experience spiritual connection. In these instances, the cipher offers gifts or knowledge whose meanings, in the Deweyian sense, contain a "variety of possible ways in

which the event might influence our future activities and our shared understandings" (Nonaka et al., 2001, p. 8). For these reasons, the cipher forges engagement tools that breakers with heart use to reflect on alternatives to the future. I think that heart is natural consciousness alert to "human existence in an ever-changing, interrelated world" (p. 7). It stands that dancing with heart indicates a state of readiness to traverse new boundaries that open onto the unstable future. For Nonaka et al., "Human beings keep changing or *becoming* by exercising their creativity in choosing among alternatives to create their future" (original emphasis, p. 25). A state of readiness potentiates the volition to re-create the world according to a particular vision or ideal. A knowledge vision articulates an ideal version of the world that is not easily achieved. Nonaka et al. (2008) explain, "Rather, as a vision of the future that gives meaning to the past and present, it is a self-transcending objective aimed at getting the organization [or individual] to surpass itself" (p. 28). Buddha uses engagement tools sharpened or forged in the cipher to perceive the world.

> Buddha: I would say a b-boy or a b-girl is someone that internalizes that feeling [being totally there], and also that mindset about how we engage the world, and that spiritualism. Then tries to hold on to some of the gifts that you felt in the cipher and use them as engagement tools in the world, in bigger life. The wiser b-boys don't do this like it's a goal, "I got to do this and this and this;" it just seems to come naturally. [That internalized feeling and mindset] becomes a bit of your worldview, your paradigm of experience that you're going to reflect on things, the lens that you're going to reflect on the world through. I use that to look at capitalism, to look at global economies, all this stuff.

The cipher explanations made by PoeOne and Buddha share a prominent inference. They infer that the cipher is neither a beginning nor an end, rather the cipher is a process where individuals may experience spiritual connection, lose self-consciousness to open to others. I suggest this resembles the self-transcending process that Nonaka et al. (2001) argue permeates the knowledge-conversion process.

The cipher overlaps with practices and philosophies that form the spectrum we refer to as the b-boy culture. Thinking of the cipher as a product and a process helps us better understand why Petchauer suggests grounded studies that focus on "the meaning-making processes between hip-hop and the people who create, encounter, and practice it" (2009, p. 951). Instead of viewing the b-boy aesthetic form as a meaning-making process, I consider the breakers' aesthetic practices as the knowledge-creation process.

Hiphop Habits of Mind

In chapter one, I defined hiphop aesthetic practices as as a set of values and or practices that contain and produce situated ways of doing and habits of mind (Petchauer, 2009). Then added that this definition resembles phronesis, the Aristotelian term that according to Noel (1999) is often defined as "a true and reasoned state of capacity to act with regard to the things that are good or bad for man (sic)" (p. 274). She elaborates that the basic interpretation of phronesis "addresses the ways people act in everyday situations" (ibid). Nonaka et al. (2008) argue that the principal characteristic of knowledge is that humans create it through their interactions. They define knowledge as subjective, process-relational, aesthetic, and originating in practice. The knowledge-creating process holds together "with phronesis as the synthesizing glue" (p. 14). Reciprocally, knowledge creation develops this creative capacity.

Nonaka et al. (2008) explain that the phronesis translates roughly as practical wisdom and "was described by Aristotle as an essential habit of mind that grasps the truth" (p. 14). Through phronesis, individuals are able to ascertain and attempt "the best action in a specific situation to serve the common good" (ibid). As we saw earlier, the cipher is a microcosm of the b-boy culture and of a heterogeneous social world. From the perspective of the knowledge-conversion process this gathering of disparate groups, competing interests, and varied artistic mastery provides individuals the opportunity "to envision (sense) different futures, and respond differently to (seize) [grasp] those opportunities" (Teece, 2007 as quoted in Nonaka et al., 2008, p. xiii). The creative capacity to adapt to continuous change relies on the ability to improvise and to perceive opportunities

at the right time. Certainly due to its improvisational nature, plus the cultural criterion to collaborate and compete, time spent in the cipher hones this capacity.

Hiphop Ways of Doing

I suggest that by mastering the b-boy aesthetic, Buddha has also mastered phronesis as demonstrated by his belief that he uses gifts received in the cipher to engage in a life beyond the b-boy praxis. Buddha provides examples of cipher gifts during an explanation that centers on a lifelong commitment to b-boying.

> Buddha: It's easy to continue when you got the top-dog status stroking
> your ego. But keeping involved as a dancer out of pure love for the
> game—that's a next level thing. Even during the dark years for b-boying
> [1985 -1989] when media attention shifted to skateboarders and BMX
> bikes, CFM kept dancing with pride, going so far to state publicly, "We
> are just getting started." Why should we give up on something we love
> just because the public eye has turned away? We were doing this for
> ourselves. We saw crews disappearing because they hadn't internalized
> some of the deeper cipher gifts like figuring out who you were and the
> importance of the crew! (S. Leafloor, personal communication, July 19,
> 2011).

I think Buddha uses cipher gifts in bigger life situations that call upon him as family, friend, mentor, and professional. As an illustration, when referring to a speaking engagement before an assembly of Ontario chiefs of police, he described his public speaking style as a cipher performance. He described strutting and hopping around, gesturing and mimicking, these theatrical devices combined with his text to develop an emotional attachment between himself and the audience (S. Leafloor, personal conversation, July 20, 2011). In some ways, Buddha implies the intentional use of cipher performance techniques to lower personal barriers to consolidate private and shared perspectives held by the chiefs of police and himself. In this manner, Buddha co-creates actions that serve the intimate and professional communities to which he belongs. "The ability to understand and bring to fruition that which is considered good by individual[s]…in specific times and situations is what Nonaka calls phronesis" (Teece, 2007 as quoted in Nonaka

et al., 2008, p. xiii) That Buddha remains alert to change came across during our conversations when he would communicate in a deeply sincere way with everything he had. His fluency with phronesis becomes evident in his expression of heart as the dance and as the ability to broaden learning situated in the dance to bigger life.

Certainly, as a person-in-the-world Buddha mobilizes the reflexive process to integrate understandings grasped in the cipher to life beyond the b-boy praxis. In other words, the raw cipher becomes a place where he accumulates moments of lived experience that include personal contact with transcendence and social harmony. The experience shared by others is just that: experience, not ultimate answers to life's mysteries. I think this collection of experiences has helped Buddha develop the habit of thinking on his feet, adapting to change. A habit that may have become almost second nature based on how long he has participated in the b-boy praxis. From this habit flows a willingness to learn other points of view that seems to leads to a willingness to broaden, to extend, and reframe his ever-expanding knowledge realm.

B-boying and Trialogical Learning

Three Learning Metaphors

The field of education and education research has developed a variety of learning theories that can be categorized into three metaphors: 1) learning as knowledge acquisition; 2) learning as situated or as participation in a social community; and 3) learning as knowledge-creation (Paavola, Lipponen, & Hakkarainen, 2004). One feature shared by the second and third metaphors is rejection of both knowledge as a property or ability of the mind and of learning as a process filling the mind with bits and chunks of knowledge (acquisition). The participation metaphor emphasizes the deep interconnections between what is learned and the complex social environments in which it is learned. Situated learning as described by Wenger (1998) involves participation through engaged actions and interactions where these engagements are embedded in culture and history. Hakkarainen and Paavola (2009 suggest the third metaphor, knowledge-creation, as a tenable solution for a shortcoming of the two basic

metaphors—acquisition and participation—because neither sufficiently addresses deliberately creating and advancing knowledge. Paavola, Lipponen, and Hakkarainen (2004) describe the knowledge-creation metaphor for learning as a collective effort that creates knowledge to develop shared objects of activity.

Knowledge-Creation and Trialogical Inquiry

Hakkarainen and Paavola (2009) claim the knowledge-creation metaphor conceptualizes learning that supports intelligent inquiry by creating new ideas, tools, and practices such that knowledge is either enriched or changed during the innovative inquiry process. Thus, argue Hakkarainen and Paavola the knowledge creation view "requires a trialogical approach to learning" (p. 67). I return to this approach shortly. The central aspect of the knowledge-creation view is the pursuit and development of mediated or trialogical objects. The innovative knowledge community reflects on and transforms three objects depicted in the table below that provides trialogical and b-boy examples from my thesis.

Table 1. Examples of mediating or trialogical objects (Source: Hakkarainen & Paavola, 2009).

Object	Trialogical	B-boy
Conceptual	Questions, theories, designs	Foundation or philosophy, "How does one start from the bottom of the b-boy way of life?"
Material	Prototypes, products	Videos of ciphers, battles, and how-to lessons that are exchanged in person, and available on the Internet.
Practices	Procedures	Ciphering, b-boy attitude.

The b-boy cipher as a mediating object. I think that the cipher represents a mediating object that b-girls and b-boys have developed in collaboration "through longstanding and extended efforts; [years and decades,] weeks and months rather than minutes, hours or days" (Haakarainen & Paavola, 2009, p. 68). A sustained long-standing pursuit of knowledge advancement is one

of six basic characteristics of trialogical learning. In many ways the process of *hiphop creation* resembles the knowledge creation process described by Hakkarainen and Paavola as "discontinuous and nonlinear in nature, it is full of sudden breakdowns, obstacles that appear insurmountable, accumulating and resolving tensions and contradictions, and occasional leaps of inquiry" (p. 71). When viewed as a mediating object the cipher could also be termed as a form of trialogical activity where the dancers work together to elaborate a shared object (e. g. the cipher competition and or collaboration). Recall Paavola and Hakkarainen (2005) describe trialogue as the notion underpinning the knowledge-creation metaphor (see pp. 64-65). "Trialogue means that by using various mediating artifacts (signs, concepts, tools) and mediating processes (such as practices, or the interaction between tacit and explicit knowledge) people are developing common objects of activity (such as conceptual artifacts, practices, products, etc.)" (p. 546). Examples from the b-boy culture that have appeared in this study include:

- mediating artifacts—the musical canon, stylistic principles;
- mediating processes—battles, practice (open, crew), mentorship;
- shared objects of activity—improvisational performances, philosophy about the dance, secret battle strategies, history of the dance movements and the form, dance vocabulary and categories.

Hakkarainen and Paavola depict the knowledge creation metaphor as a triangle linked by an agent of knowledge creation, an innovative knowledge community, and a shared space; they place in the middle of the triangle the trialogical approach to developing shared objects of activity (2009, p. 67).

Trialogical Approach: Basic Characteristics and Hiphop Culture

The knowledge creation metaphor views learning as "the processes, practices, and social structures [that] promote focused creation of new knowledge and innovation rather than adjust[ing] to the culture or discourse at large [participation] or the assimilation of existing knowledge" (Hakkarainen & Paavola, 2009, p. 66). The trialogical approach, on the other hand, "is closely connected to an interventionist view on research, and on design-based research

approach where the aim is to produce knowledge to help to develop novel practices and technology, not just to explain existing practices" (p. 70).

I suggest that both the knowledge creation metaphor and the trialogical approach may offer different vantage points to better understand how in the last 30 years hiphop has become a robust global innovative knowledge community. The scope of this paper limits me to listing some ways the b-boy culture may connect to six, interrelated, principal features that characterize trialogical learning featured in Table 2 (page 100). This demonstrates the possibility that the raw or freestyle cipher is an artifact of cognition and practice bound to hiphop. I argue ciphering contributes to the BBBG's collaborative effort to enrich and create shared knowledge artifacts. Their effort represents the ways the b-boy culture can be identified as an innovative knowledge community that shares personal knowledge to create and advance communal knowledge.

Discussion

I have interpreted the b-boy freestyle cipher as a product and a process because the activity contains a cultural norm to collaborate and compete simultaneously. In this regard, the cipher represents aspects of two theories that I use in tandem, legitimate peripheral participation (Lave and Wenger, 1991) and the knowledge creation process (Nonaka, 1991/2007). My theoretical framework considers LPP a subset of knowledge creation. In this manner, I support Hakkarainen and Paavola's (2009) assertion that participation and knowledge creation metaphors are closely related.

I have used my theoretical framework to describe the alignment between b-boy pedagogy and Nonaka's knowledge-creation theory, paying particular attention to data that describes the freestyle cipher as a place that involves concrete breaking of boundaries or transcending limited perspectives (Hakkarainen & Paavola, 2009; Nonaka, et al., 2001, 2008). A case in point, Buddha's descriptions of moments of transcendence that he associates with being driven by the music to the degree that feeling flows from and through him. In these moments he receives cipher gifts that he links to his 30-year, and continuing, commitment to hiphop.

Table 2: Connecting the b-boy culture to the trialogical learning approach (Source: Hakkarainen & Paavola, 2009).

Trialogical Characteristic	B-boying
Shared objects of activity	Improvisational performances (i.e., the cipher), organized battles' judging system, b-boy foundation.
Sustained and longstanding pursuit of knowledge advancement	Originates in the South Bronx in the 1970s as an (African)American subculture. Today continues to develop and advance as a global culture.
Interaction between individual and collective activities	Ciphering, mentoring, performing, teaching, learning, and socializing.
Cross-fertilization of knowledge practices	Includes root dance forms of African, Afro-Cuban, Native American, Russian dance styles; plus martial arts, tap dancing, gymnastics, etc. (Pabon, n. d.)
Technology mediation	Internet (e. g. web sites & blogs), videos and DVDs.
Development through transformation and reflection	Ways of being and habits of mind (e. g., b-boy etiquette, call outs, phronesis)

Throughout this thesis, I have referred to knowledge creation as the third learning metaphor or approach to learning (Paavola & Hakkarainen, 2004, 2005, 2009). I have shown that the raw b-boy cipher may be better understood as a mediated process based on the knowledge-creation metaphor, or the trialogical approach for learning (Hakkarainen & Paavola, 2009). In particular, I have introduced Paavaola and Hakkarainen's (ibid) research that considers three models of innovative communities as approximations of their trialogical framework: Bereiter's theory of knowledge creation, Engeström's theory of expansive learning, and Nonaka's theory of knowledge creation (ibid). I have

demonstrated that Nonaka's (1991/2007) theory of knowledge creation can guide "the examination of learning as a process of innovative inquiry in which the aim is to progressively refine knowledge artifacts and engage in long-term processes of expanding a community's knowledge and competencies" (Hakkarainen & Paavola, 2009, p. 67).

I have represented the cipher as the knowledge creation metaphor to conceptualize learning as innovative communities of knowledge that develop common objects of inquiry based on advancing communal knowledge. Rather than investigate hiphop as communities of practice, I argue that different understandings may occur when we investigate hiphop as innovative knowledge communities. Also, by working within the research trajectory identified by Petchauer (2009) that concentrates on how hiphop practices and aesthetic forms influences people's ways of doing and habits of mind, I have suggested that the b-boy aesthetic practices develops phronesis, or the creative capacity to adapt to continuous change due to an ever-evolving ability to improvise and perceive opportunities at the right time. In this regard, the aesthetic practice may represent the knowledge-creation process used by innovative knowledge communities. Future grounded studies based on this perspective may expand the focus from hiphop meaning-making processes (Petchauer, 2009) to include processes of hiphop knowledge creation. This research strand may help us better understand how a neighbourhood activity, created over thirty years ago by and for some South Bronx youth, has matured into a worldwide cultural practice produced and consumed by and for many of today's youth and adults.

I hope that my thesis contributes to the following descriptions of the cipher made by the following scholars: Emdin (2009) describes the attributes of full or true participation that are present in the cipher; Stevens (2008) describes procedural knowledge relevant to ciphering and demonstrates that, so far, its raw, edgy qualities cannot be translocated to professional theatrical productions; Schloss (2009) enumerates cipher benefits such as the ability to think on your feet, to improvise, to draw on strengths under pressure and also, how to face inner fears and cope with one self; while Johnson (2009), with respect to race and

national difference, emphasizes that the cipher force acts as a resource to attune differences and competing interests through ideas of the whole.

I have added to these academic descriptions the notion that the cipher has the potential for dancers to experience a conscious readiness to change. As cipher experiences accumulate, many dancers develop the capacity to remain alert to change. Gradually, some BBBGs develop and articulate an ideal vision of the world that transcends their limited boundaries. More important, when achieved, the community could be superior to past versions of itself and individuals could be willing again to reinvent themselves, their practice, and even the world.

Chapter 6. Conclusion: Hiphop Schools not hip-hop in Schools

In this chapter I discuss two apparent dilemmas associated with translocating the cipher into existing educational institutions. The first dilemma relates to educators who may be disappointed because the cipher's potential might be diminished once this activity is altered into a high school instructional activity. My concern comes from attempts by contemporary choreographers to bring the essence or magic of street dance to the performing arts. Stevens (2008) argues that although choreographers may incorporate improvisatory processes into their theatrical dance, there is a sentiment in the Montreal street dance community that trained dancers are incapable of raw aggressive performances: breakdancing, maybe; breaking, unlikely. I think formal schools and performing arts are similar enough that educators and choreographers may encounter similar challenges when translocating cipher performances and dynamics into these institutions. The second dilemma relates to b-youth who may perceive educators as attempting to gain a degree of control over hiphop practices for their own benefit. This could occur when educators mistakenly identify a hiphop pedagogical tool as noncompliance with codes of conduct established by school authorities. Put simply, the controlling interests for education are beyond the reach of most b-youth whose primary role appears to be as consumers of instructional activities. I suggest a feasibility study to establish a *Hiphop School* owned and operated by professional educators and masters of hiphop visual arts, music, and dance. The Hiphop School would be based on successful models of performing arts schools such as Juilliard, the New York dance, drama, and music school, or the National Circus School situated in Montreal, Quebec. Before exploring these ideas any further, I now briefly comment on the limitations of my study.

Limitations

My analysis may fall short due to the limited amount of research available regarding both the b-boy culture and cipher. For example, the cipher could have different meanings and purposes for today's b-youth than it does for BBBGs who have been involved in the culture for 10, 20, or 30 years. According to PoeOne (Son, 2009) and Buddha, *old school* and *middle school* breakers have a different

conceptualization than today's b-youth. The literature appears to have less material on present day breakers (those who have been b-boying for under five years) than on those who have been b-boying for upward of ten years. Also, insights from an international perspective on the b-boy cipher and culture may demonstrate how global practices influence b-boy communal knowledge. Finally, I would have found it helpful to turn to literature that expands *Tha Global Cipha*: *Hip Hop Culture and Consciousness* (Spady, Alim, & Meghelli, 2006) Their book documents in-depth interviews with leading deejays, emcees, and dancers who discuss what it means to be part of a hiphop community from the perspective of 30 years of global hiphop history. Future studies that investigate the cipher as a holistic practice among various hiphop aesthetic elements may compliment the complex understandings researchers have already brought to hiphop scholarship.

Another limitation that restricted my analysis regards the possibility that knowledge creation as a research strand has received more attention in business than in education. As far as I know there is no existing research that investigates hiphop or b-boying from the knowledge creation metaphor, the trialogical approach to learning, or the organizational knowledge creation process theory. Further, although Paavola and Hakkarainen (2005) use aspects of Nonaka's theory for their research, due to time limitations I am unaware if there are more studies that use his theory to investigate teaching and learning environments.

A final limitation involves a difference in technology. For instance, Nonaka studies how Japanese automobile companies use technology. Paavola and Hakkarainen examine computer-supported classrooms in Helsinki, Finland. In both these instances technology appears more structured, accessible, and better funded than in the b-boy culture. That being said, technology appears to share similar functions in business, education, and b-boying. Future studies that examine the ways breakers use technology to teach and learn, may expand or challenge present understandings of the role technology plays in the knowledge creation approach to learning.

From Street to Stage: The Cipher as a Theatrical Performance

The cipher combines dance, place, competition, collaboration, improvisation, and the reciprocal relationship among these constituents. The cipher transmits energy that dancers often describe as qualia, a feeling of connection or transcendence. I agree with Schloss that "b-boys and b-girls view the cypher with an almost mystical reverence, befitting its status as the most authentic, challenging, and raw environment for b-boying" (2009, p 99). Throughout my thesis I have commented on the possibility that the qualia of the cipher may not appear in the classroom. This hunch originates from my own experience participating in specific social contexts to which the cipher dynamics are tightly bound. In addition, my impression is influenced by Stevens' (2008) understandings that professional theatre and contemporary dance are too rigid for the interactive environment of street dance. Professional performances must fit into the physical restrictions and aesthetic modes that structure contemporary dance pieces.

Victor Quijada has trained simultaneously as a professional concert dancer in post modern and classical ballet, and as a street dancer. At the time of this writing, he is the artistic director and choreographer for his Montreal dance company Rubberband Dance Group (RBDG) that opened in 2002. According to the RBDG website, Quijada founded the group to create a new concept of dance that blends "the spontaneity and exuberance of hiphop with the refinement of classical dance" (http://www.rubberbandance.com/#/historique-rbd/?l=en).

Quijada explains the cipher essence is lost when trying to present it on stage. In addition to barriers created by the rules of theatre, Quijada identifies another barrier as the less visible well-entrenched unofficial rules of freestyle breaking. He states:

> There were these rules that we were trying to break in the hip hop circle that we couldn't break. Attention span was minimum. The music was asking you to do a certain thing. People's expectations were asking you to do a certain thing... so there was a point at which, fuck - the hip hop shit has a lot of rules too (Stevens, 2008, p. 167).

As mentioned in chapter two, both RBDG and the Solid State dance collective acknowledge that essential characteristics of breaking are altered when a b-boy cipher is reproduced for the theatre. Rather than replicate b-boying, they attempt to preserve its essential spirit (Stevens, 2008). Even so, according to Claudia Fancello, a co-founding member of Solid State, transmitting the idea or the spirit of breaking on stage is easier said than done.

> Fancello: It's stuff that is very, very tricky. We think a lot about what is it, in the actual break dance form that inspires us, that we see can be transposed onto stage. Because of course it's going to be changed, of course it's going to be completely different than breaking, and the moment we do take it onto stage it's going to be something else even if you do exactly what you do in a circle, in a cypher, it's something totally else (Stevens, 2008, p. 183).

Quijada and Fancello claim the vital cipher energy cannot be transposed to theatrical performances. As I have shown, many BBBGs consider cipher energy the cipher itself; without this energy there may be a circle, yet there is never a cipher. Because the essential spirit resists an absolute definition, before altering the cipher as an instructional activity, I argue that educators should learn as much as possible about the hiphop cipher. This includes attending numerous events where the people who participate in the local hiphop culture are ciphering. The experience and understanding established by spending time in local places may help educators determine what to expect when introducing the cipher as an instructional activity and avoid possible disappointment when their vision does not immediately materialize.

In Class: The Cipher as an Instructional Activity

In "*The Tale of the Talent Night Rap*," Low (2011) explores tensions between black popular culture and schools. She offers two contradictory interpretations to explain what arose when a student rap act was cut during talent night in an urban high school located in a midsized city in the Northeastern United States.

The first interpretation stems from a belief that rap and education are incompatible, Low identifies this as "moral panic." The second, identified as a critical reading, considers the student rap performance as public resistance of the repressive school culture. Yet, according to Low, these two interpretations do an injustice to the complexity of the event and illustrate that tension—as a site of potential learning and new knowledge—has pedagogical value. On the whole, the tale of the talent night rap is about the politics of interpretation and the power of language where "the ambiguity of verbal meanings and performance can work for but also against you" (p. 77). Also, the event demonstrates adults' perpetual obligation to listen to youth despite how messy and complicated this becomes given "generational and multicultural (racial, gender, class, and other) differences, many of which are embedded within and shaped by popular culture" (p. 85). Based on this analysis, I anticipate that introducing the cipher into high school classrooms would lead to tensions between adults unaware of youth culture and youth heavily invested in popular culture.

I think based on our present-day procedural knowledge and our conceptual understanding of the cipher's complex nature there appears to be a risk of alienating youth, especially hiphop-identified youth, when educators tailor the cipher to fit into classrooms and schools where roles are well defined and behaviour fixed for administrations, teachers, and students. For example, both rap and b-boy ciphers incorporate ridicule to maintain "the continuity of the hiphop aesthetic, however it is also an important pedagogical tool" (Schloss, 2004, p. 49; see also Gates (1988) work on "Signifyin(g)" a term that refers to a system of black vernacular rhetorical strategies). In *Making Beats: The Art of Sample-Based Hip-Hop*, Schloss (2004) identifies the educational process practiced by producers. This includes developing deejay proficiency, investing in equipment used in a home studio, listening to other artists and to musical genres (i.e., rock and roll) "as *hip-hop* music" (original emphasis, p. 49), and discussions with other producers. Discussion involves but is not limited to mutual criticism and ridicule.. Schloss explains that "hearing another producer berated for something can lead a young producer away from it, before it even becomes an issue in his own music"

(p. 49). In this instance, the hearing another berated and turning away represents the signifyin(g) process with the young producer as the principle audience. Buddha identifies ridicule as mockery when he advises stopping newcomers from ciphering before they have achieved a degree of mastery. Discouraging inexperienced cipher performances protects newcomers from embarrassment, mentors from being questioned why they would let this happen, and protects the dance vocabulary from being watered down by dance moves irrelevant to b-boying. From Schloss and Buddha's points of view, ridicule safeguards the aesthetic principles and processes for the musical and dance elements of hiphop.

I have observed dancers ridiculed for repetitive cipher performances, inaccurate dance moves, as well as for not following b-boy rules, and difficulties with anger management. The ridicule has two more functions that can be added to those mentioned above. First, used as a battle strategy, ridicule can provoke emotional reactions causing dancers to lose their composure and competition points. Second, ridicule prompts dancers to invest more time and effort mastering the dance and the b-boy foundation. When performed, ridicule can be expressed as lewd (grabbing the crotch), mockery (plugging the nose while pointing at a dance move), aggressive (killing an opponent), or as verbal insults (using foul language, talking trash). In addition to overt gestures, there are also gestures and postures whose message can only be decoded by dancers with in-depth knowledge of the breaking culture. Most of these, I am unable to translate; sometimes crowd reaction shows me a message has been delivered and reminds me I am outside the community of listeners that knows its codes (Low, 2011).

In general, depending on the context any one of these forms of ridicule could result in students being punished by school authorities. In these instances, admonishing hiphop-identified students could interrupt a teaching moment they have engineered. More, when teachers disrupt a central hiphop interaction from occurring during an instructional activity that uses a hiphop practice, students may discredit teachers' efforts to connect curriculum to their daily lives. Worse, the students may perceive the teachers as trying to control or interfere with hiphop

culture. At this juncture, it would be easy to make comparisons between the commercialization of hiphop (e.g. music and fashion industries) and educators stealing from popular culture to revitalize the curriculum or their teaching practices (Stevens, 2009). The cipher uses many devices that may make adults uneasy; to omit them from the cipher practice would alter its essential characteristics. Once removed, is the cipher still a cipher? Or, is it an activity that incorporates improvisational theater?

From Traditional to Hiphop Schools

As implied previously, by bringing together school and hiphop cultures, tensions arise around issues of power and change, and the forces that direct power and change. One possible solution complements on-going efforts to expand formal notions of schooling to value popular culture for its pedagogical potential and to welcome the tension contained in the generative process (Lave & Wenger, 1991/2006; Low, 2011). In addition to valuing the pedagogical value of popular culture, I suggest broadening educational institutions to include a Hiphop School based on the model used by performing arts schools (e.g. Brent Street Studios, Curtis Institute, Juilliard School, National Circus School). These institutions combine academic excellence with aesthetic, performance and career studies.

Increasingly educator-researchers acknowledge that teaching and learning occurs on and off school grounds. In addition, hiphop education continues to gain support from students and parents, teachers and administrators, as well as from "coalitions and networks of educators in and out of school who are making a case for rap pedagogies" (Low, 2011, p. 146; Abe, 2009). To this I add the acknowledgement and support that can be found among various artistic disciplines for hiphop music, dance, art, fashion, and film. However, these supporters have little influence on the institutional norms that exclude founding or highly respected hiphop artists from stable careers and funding. Johnson (2009) describes breakers who financed their own travel, accommodation, and income to perform as background dancers for Hollywood films. Stevens (2009) states that none of Montreal's keystone crews or dancers are choreographers in any of the

city's more successful contemporary dance companies, nor have they secured anything more than a peripheral presence in Montreal performance arts (p. 143).

A Hiphop school modeled after performing arts school may create benefits such as leaving the control of hiphop in the hands of its creators and practitioners; funding hiphop artists according to Canada Council for the Arts criteria that funds professional artists, where professionalism is determined by institutional training, (Stevens, 2008); educating hiphop youth through academic, performance, and career studies; bringing together hiphop master teachers with certified master teachers to develop and innovate pedagogies and practices that expand and broaden our communal knowledge related to teaching, learning, and knowledge. In many ways this vision of the world—what it is and what it might to be—would create a school for innovative knowledge communities grounded in hiphop.

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Appendix 1

Questions for Formal Interviews

1. Tell your story of discovery: When was the first time you were introduced to bboying? When did you know you wanted to learn the dance form? What people and events influenced your mastery of the art form?

2. How did you learn to break? The b-boy attitude?

3. How does b-boying differ from writing, mcing, and rapping?

4. Why are you still practicing the dance form?

5. Compare your school learning (e.g. elementary, high school, university) to learning to break and to being a b-girl/b-boy.

6. Do you teach b-boying the same way you were taught in schools?

7. Do you agree or disagree that all people take part in hiphop regardless of race, ethnicity, class, gender, or ability? Elaborate.

8. As a master teacher, how do you teach dancers of different races?

9. What do you do when racial tension occurs among dancers?

10. How has your whiteness contributed to or interfered with your sense of belonging to and ownership of the hiphop culture?

11. Describe your involvement with the New York b-boying scene.

12. Are there any differences between New York, Ottawa, and Montreal with respect to teaching, learning, and furthering the dance form?

13. What influence has Montreal and Ottawa had on the New York scene?