Lessons and Learnings from PhD Research:

Semiotic Potential of Multimodal Experiences for Early Years Readers

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Please note: Excerpts from my dissertation (University of Manitoba, forthcoming) have been included in this paper.
Introduction

I have long held a passion for arts education and a belief in the potential for music and the arts to make curricular connections for all learners. Rhythm and beat are particular interests and over the years I recorded a body of anecdotal classroom observations describing perceived links between rhythm and reading. As Part of my PhD program, I designed a study to investigate the relationship between rhythm and reading and the potential for rhythmic experiences to facilitate engagement and learning in both music and reading literacies.

The mixed methods intervention study was conducted in nine early years classrooms from April to June of 2007. The research yielded rich quantitative and qualitative data that took the following year to (re)read, (re)analyze, triangulate, and verify. Data analysis was reviewed by qualitative readers and a statistical advisor, and I was happily confident my findings would stand up to rigorous examination using authoritative standards for evaluating quality in research. Positive feedback was received from sharing preliminary results at the Congress of the Humanities and Social Sciences May 2008 and by the end of June 2008, Results and Discussion chapters were drafted.

I was greatly looking forward to nearing completion of my PhD dissertation and program when progress came to a crashing halt. The momentum of my work broke down as I experienced what Davis (2005) describes as “interrupting frameworks” (p. 119). Here then, is my story, the lessons and learnings of my PhD research to date. I begin with a brief update of my literature review followed by a summary of initial findings and the process I used in transmediation of data analysis. I describe why work was interrupted and conclude with new directions taken in data analysis and writing.
Lessons and Learnings

Update of Literature Review

In previous work (Peters, 2006; in press) I established a need to explore alternative pathways to print literacy for early years children who struggle with reading. I offered theoretical and empirical support from philosophical, educational and neuroscientific literature for the semiotic and neurobiological potential of music and rhythm for struggling readers. The body of supporting literature continues to flourish with interest in multimodal/multiliteracy learning, investigation of reading processes, and new evidence from neuroscience.

Attention to multimodal/multiliteracy discourse (Jewitt, 2008; Jones & Ventola, 2009; Lancaster & Rowe, 2009; Page, 2009; Royce & Bowcher, 2007; Unsworth, 2008) remains fuelled by needs of the “new communicational landscape of the twenty-first century” (Love, 2008, p. 173). In a review of research examining multimodal literacy use in education, Jewitt (2008) states that a key aspect of this landscape “is the reconfiguration of the representational and communicational resources of image, action, sound, and so on in new multimodal ensembles” (2008, p. 241). Multimodal discourse and communication (Kress & van Leeuwen, 2001) are important for my research as I attempt to design a dynamic, interactive, and functional grammar of multiliteracies (Cope & Kalantzis, 2000; Kalantzis & Cope, 2001) using the semiotic resources of print text and rhythm.

Unsworth (2008) notes recent developments in multimodal literacies for education derived from systemic functional linguistics and social semiotic theories of communication (Halliday, 1978; 1994). Halliday’s metafunctional dimensions have been applied to multiliteracies such as film (Tseng, 2008), space (Ravelli, 2008), sound (Pun, 2008), and image (Caple, 2008). In my research, I apply and extend understandings of intersemiosis elaborated in these writings and described by Unsworth (2008) as “ways in which images and language
function both separately and integratively to construct meaning in multimodal texts” (2008, p. 5).

I use a Hallidayan perspective of meaning-making to adapt semiotic discourse analysis to functions of music and reading, using a definition of intersemiosis supplied by Chiew: a “complex interaction and production of meanings between instantiations of different semiotic resources” (2004, p. 155).

Opportunities to use different semiotic resources for meaning-making and meaning-sharing should be available to all learners (Short & Kauffman, 2000). The complex interaction of “re-thinking what is known in one sign system (like print) through another sign system (like art or music)” (Crafton, Silvers, & Brennan, 2009, p. 36) is known as transmediation, a term first coined by Suhor (1984). Through transmediation, new meanings are generated as a one semiotic text disrupts another text, “to open it up anew” (Berghoff, Egawa, Harste, and Hoonan, 2000, p. 3). Albers describes the process of moving across sign systems as a generative one for learners “in that it unfreezes what was thought known and opens up new spaces for discovery” (2007, p. x). Transmediation is foundational to arts-based learning (Berghoff, Borgman, & Parr, 2005) and to my research.

Global interest in reading and music processes related to my study also continues to accumulate. Research investigating phonological awareness (Frost, et al., 2009), prosody (Clin, Wade-Woolley, & Heggie, 2009), and fluency (Hudson, Pullen, Lane, & Torgesen, 2009; Rasinski, Homan, & Biggs, 2009) recurs throughout the literature. Music is increasingly a focus of study to facilitate these reading processes. A recent meta-analysis of 30 studies using a variety of music interventions designed to improve reading “resulted in a moderately strong, significant, overall effect size” (Standley, 2008, p. 17). Darrow and colleagues (2009) also conclude music to be a viable and enjoyable methodology for teaching reading skills.
David, Wade-Woolley, Kirby, and Smithrim (2007) suggest a number of reasons to consider rhythm as a “potentially influential factor” (p. 170) in phonological awareness and conclude that “our findings provide evidence that rhythm is a factor that deserves greater research attention” (2007, p. 181). Winner (2008) and Holliman, Wood, & Sheehy (2008) likewise note the importance of rhythm as an area of research and suggest that the associations between speech rhythm and phonological awareness are under-researched.

Goswami (Corriveau & Goswami, 2009; Goswami, Gerson, & Astruc, 2009) remains the dominant name associated with research connecting timing issues with phonological and prosodic difficulties. Goswami’s (2003) pronouncement that struggling readers (such as those with dyslexia) “don’t get the beat” continues to be affirmed in recent studies (Abrams, Nicol, Zecker, & Kraus, 2009) including those across languages (Suranyi, Csépe, Richardson, Thomson, Honbolygó, & Goswami, 2009).

Advances in neuroimaging and public fascination with related neuroscientific research sustain the plethora of brain-related literature including the neuroscience of music (Kraus, Dalla Bella, Overy, & Pantev, 2009, Patel, 2008; Thaut, 2005). Current neuroscientific research indicates a strong relationship between music, temporal and cognitive processes related to reading (Abrams, Nicol, Zecker, & Krauss, 2009; Forgeard, Schlaug, Norton, Rosam, Iyengar, & Winner, 2008; Moreno et al., 2008; Patel & Iversen, 2007). In a review of recent research, Johansson concludes evidence “for the fact that early musical training might facilitate reading” (2008, p. 421). Schellenberg (2008) however, expresses concern with scientific evidence claiming positive relationships between music and cognitive abilities without control for Full Scale Intelligence Quotient. Schellenberg does acknowledge rigorous evidence to suggest music experiences shape brain structure and function.
Patel (2008) asserts that music has the power to re-wire neural connections:

"Music…resembles the ability to make and control fire; it is something we invented that transforms human life…not only is it a product of our brain’s mental capacities, it also has the power to change the brain” (p. 412). Rhythm in particular, is identified as a significant element in influencing cognitive, affective, and motor functions. Thaut (2005) suggests that rhythm may affect information processing across widespread cortical and subcortical networks and believes “rhythm may be one of the central processors to optimize our gestalt formation in the basic processes of learning and perception” (p. 17). Thomson and Goswami (2008) suggest that rhythmic interventions could have previously unsuspected benefits for children who struggle with reading and with speech and language impairments and recommend simple rhythmic motor activities accompanying vocalized syllables.

**Theoretical Framework and Research Questions**

I place myself in the theoretical, methodological, and interpretive paradigm of “bricoleur” (Denzin & Lincoln, 2000; Kinchloke & Berry, 2004). The major paradigm or worldview guiding action in this research is post-modern constructivism. This assumes a relativist ontology of multiple realities and a subjectivist, transactional epistemology where understandings are co-created within hermeneutic, naturalistic methodological designs (Denzin & Lincoln, 2000). However, as a bricoleur-theorist, I work “between and within competing and overlapping perspectives and paradigms” (Denzin & Lincoln, 2000, p. 6) from post-positivism, constructivism, pragmatism and advocacy/participatory worldviews using mixed quantitative and qualitative methodologies.

With supports from the literature and in the spirit of bricolage, I designed an Orff-based rhythm and reading intervention (Peters, 2006) using elements common to the Orff approach:
speech, song, body percussion, small nonpitched percussion instruments, barred instruments, listening, and movement experiences (Goodkin, 2004; Frazee, 1987). The questions explored throughout the intervention and research were: 1) What is the potential for the semiotic resource of rhythm and pattern for early years children’s engagement and meaning-making from print and nonprint literacies? 2) What factors facilitate or inhibit the effectiveness of the semiotic resource of rhythm and pattern for supporting early years children’s engagement and meaning-making from print and nonprint literacies? 3) Is there a relationship between measures of early years reading competencies and rhythmic competencies?

Methods

Methodology was drawn from both action research methods (Kemmis & McTaggart, 2005; Stringer, 2004) and design research methods (Design-Based Research Collective, 2003; Reinking & Bradley, 2004; Schoenfeld, 2006). Participants included 169 children in 9 early years classrooms (Grades 1-3) in four different Manitoba schools along with their nine teachers and parents/guardians. Each school had both experimental and control groups divided between five experimental classrooms (n=96) and four control classrooms (n=73) without random assignment. The experimental group received a 10-week intervention using Orff-based rhyme, rhythm, and pattern experiences for 20 minutes 2-3 times weekly in a group setting while the control group participated in singing song storybooks in a similar setting and context. All activities were consistent with classroom curricular materials and I conducted both experimental and control classroom activities.

Control and experimental groups received pre-and post-tests for measures of beat competency and oral reading fluency. The Oral Reading Fluency (ORF) test, a subset of the Dynamic Indicators of Basic Early Literacy Skills Sixth Edition, (DIBELS), (Good & Kaminski,
2002) was the measure for oral reading fluency and the computer-based *Rhythm Performance Test Revised (RPT-R)* was used as a measure of beat competency (Flohr, 2003).

The qualitative instruments used to gather data from students, parents, and teachers included pre- and post-survey questions, pre- and post-semi-structured interviews, and post-intervention focus groups. During the intervention, qualitative data was collected from students and collaborating teachers through classroom observations, dialogue, field notes, videotapes, student artifacts (rhythm and pattern compositions created by children), teachers’ journals, and audiotaped researcher reflections. I also journalled to record reflections, questions, and insights from data analysis and related literature. The 10 week intervention consisted of a continuous cycle of data collection and analysis that I used to revise the intervention and its implementation in an iterative process consistent with action research and design research methods.

**Results**

*Question 1: What is the potential for the semiotic resource of rhythm and pattern for early years children’s engagement and meaning-making from print and nonprint literacies?*

The semiotic resource of rhythm and pattern is an important potential for early years children’s engagement and meaning-making from print and nonprint literacies. This potential was indicated for all classroom learners including those who struggle with reading, learners for whom English is a second language, learners not previously engaged in the reading experience, and learners often marginalized in classroom settings due to social or academic differences. Qualitative data indicates eight prominent themes in answer to this question: 1) transformation (attitudes, self-beliefs, confidence, abilities, learning); 2) transmediation (meaning-making, tools, multiple semiotic resources); 3) engagement/enjoyment; 4) social/cognitive parity and empowerment; 5) conation; 6) synchrony (beat, reading, community); 7) usability; 8)
Lessons and Learnings

community/climate/culture to facilitate deep learning (risk-taking, trust, choice, respect, caring, creativity, interaction, access to print and nonprint literacies). Experiences in rhythm and pattern demonstrate positive and powerful potential to engage children in meaning-making in print and nonprint literacies. Opportunities are created for all early years learners to find success and feel confident and empowered about reading and rhythm learning experiences through appealing, motivating, social and collaborative group learning.

Question 2: What factors facilitate or inhibit the effectiveness of the semiotic resource of rhythm and pattern for supporting early years children’s engagement and meaning-making from print and nonprint literacies?

Qualitative data suggests facilitating factors include the researcher/teacher enjoyment and enthusiasm for the learning experience, caring for students, responsiveness, flexibility, and affordance of emergent learning. Facilitating factors also include classroom teacher enjoyment and support, relevant and meaningful connections to classroom curricular learning, parental and administrative support, time and opportunity to build community, relationships and trust with staff and students, and consistent, regular scheduling. Inhibiting factors include lack of time to build community and trust, limited intervention time, erratic and inconsistent schedule changes and lack of time, opportunity, and design to collaborate meaningfully with classroom teachers.

Question 3: Is there a relationship between measures of early years reading competencies and rhythmic competencies?

Quantitative data indicates a strong and significant correlation between oral reading fluency and rhythmic competency scores (R=0.07 for pre- and post-tests (control and experimental) and correlation increases with age (p<.0001). There was significant improvement in oral reading scores after intervention for the experimental group. However, Classroom B
Lessons and Learnings

contributed disproportionately to the experiment group’s significant improvement in oral reading fluency as compared to the control group. Without Classroom B, the experiment group’s oral reading scores were still greater than those of the control group but not significantly. In addition, survey results indicated no significant effect for parent perception of the importance of music or reading on children’s test scores. Owning a library card and regular home reading was a significant predictor of higher oral reading test scores (p=<.0001). Post-surveys also indicated that motivation and engagement in print and nonprint literacies continued after the intervention and that some children went on to self-initiate challenging learning experiences at home based on activities experienced during the intervention.

Discussion

Qualitative and quantitative results indicate that rhythm is a potentially important factor for oral reading fluency, phonological awareness and prosody and merits further research. General classroom interventions using music and rhythm, are viable, enjoyable, and engage students in meaning-making in both print and nonprint literacies. Rhythmic language play is a useable experience easily infused into everyday classroom reading and cross-curricular multimodal experiences. The semiotic resource of rhythm offers potential alternate pathways to print literacy learning for early years children, particularly those who struggle with traditional approaches to learning print literacy, those for whom English is a second language, those who do not become engaged in the reading experience, and for those who may be marginalized in the classroom setting as a result of social or academic inequities.

However, some findings presented a challenge for interpretation. Classroom B was significantly different to the other classrooms and the qualitative data did not seem to capture reasons for those differences; nor did it capture the depth, richness, variations and complexities of
the lived experiences and themes played out in the interactions between me and all layers of study participants. I could state with confidence that the intervention engaged children in print and nonprint literacies and created meaning-making opportunities, but after many forays through the data, I could not adequately explain the variation in engagement and meaning-making from one class to another. As a result, I went back to the literature, methodologies, and data, sought out critical readers, and reviewed my findings. I could find no explainable fault with my data or data analysis procedures. I turned to the semiotic resource that I used throughout my research and data analysis to help transmediate meaning for me. I turned to music.

Transmediation and Interrupted Frameworks

Music is quintessential to my being. I experience music in every part of the world around me; I think in rhythm and interpret through song; I gauge the intensity of emotional response through its harmonic potential. I perceive the colours of the world as musical timbre and expression, and I mentally organize the rhythms of daily, weekly, and monthly life into musical form. So when I began to analyze the wealth of data generated by my PhD study, I experienced the data in melody, rhythm, harmony, form, tone color, and musical expression. As I engaged ever more deeply with the data, I began to hear the music of J. S. Bach and to interpret the data through the 48 preludes and fugues of Bach’s Well Tempered Clavier. The elegant parsimony of Bach’s exquisite fugal writing created order and helped organize the data from thousands of pages of field notes, lesson plans, pre and post-test results, interviews, pre and post parent surveys, video and audio data, and children’s artifacts.

My data analysis design was informed by multiple authorities. I began with advice from Miles and Huberman (1994) to create an initial list of codes prior to fieldwork drawn from my “conceptual framework, list of research questions, hypotheses, problem areas, and/or key
variables that the researcher brings to the study” (p. 58). Following both inductive and deductive
systematic grounded theory approaches advocated by Strauss and Corbin (1990; 1998) I gathered
multiple forms of data, and sorted, coded, compared, memoed, clustered, and developed core
categories, themes, and theory during the research and throughout the year following data
gathering.

To answer criticisms in the literature that grounded theory approaches advocated by
Strauss and Corbin are overly prescriptive, didactic, and merely verify rather than generate theory
(Glaser, 1992), I also engaged in interpretive, emergent data analysis (Denzin & Lincoln, 2000;
Lincoln & Guba, 1985; Stringer, 2004). I identified and deconstructed epiphanic experiences,
categorized and coded emergent unitized data and I applied social semiotic multimodal discourse
analysis (Kress & van Leeuwen, 2001; van Leeuwen, 1999).

In initial stages of data analysis, fugue voices and themes from the Well-Tempered
Clavier permeated my thinking in synchrony with emerging voices, categories and themes from
my data. As I followed the process of focusing the data, five themes emerged and the Fugue in C-
sharp minor from Book I settled firmly in my mind. This fugue is a rarity in the collection; the
Fugue in C-sharp minor and the Fugue in B-flat minor (Book I) are the only five-voiced fugues
of the 48. The C-sharp minor is unique in its characteristics of “passion” fugue, complexity of
writing, musical, mathematical and spiritual signification, chromatic melodies, diminished
intervals, and stretto effects, all features I heard transmediated within the context of my research.
I shared preliminary research findings in several public forums, illustrated through analysis of the
Bach Fugue in C-sharp minor and continued exploring the literature and the reflective journal
writing begun during my data gathering phase. The questions raised during journaling, along with
emerging complexities of data analysis led me to seek out additional pathways for meaning-
Lessons and Learnings

making and I found myself reaching outside of the Baroque period and the tonal frameworks of Bach as I tried to create sense of the ever-increasing layers and levels of data analysis.

The melodic and rhythmic independence of individual parts, and the complexities and dissonances previously heard and realized throughout my data now seemed far too controlled by Bach’s “principles of tonal harmony” (Schulenberg, 2006, p. 33). I needed greater structural, thematic and tonal contrasts; the fugal genre I previously valued for the spinning out of its independent lines, “simple and unified rhythmic texture” (Rosen, 1972, p. 61) continuity, and highly integrated writing, was now inadequate to transmediate meaning. I turned to Beethoven.

Grout (1973) explains that the difference in treatment of musical subject or theme is an essential distinction between Baroque and Classical styles. In the classical sonata form, “the subject at each recurrence whether literal or modified, takes on a different meaning; the musical idea undergoes a continual, dynamic change in the course of the movement” (p. 458-459).

Sonata form became the new means through which I interpreted my data as categories and themes underwent continual dynamic transformation in the course of the analysis process. “The broad harmonic scope of sonata form in Classical music supports a wide range of options in the disposition of melodic material” (Ratner, 1995, p. 6) and so this form supported and opened up an increased and wider range of options for me in my research analysis.

Rosen states that the classical style is one of reinterpretation. “One of its glories is its ability to give an entirely new significance to a phrase by placing it in a different context” (1972, p. 78). Similarly, as I reinterpreted through various theoretical and analytical lenses, new meanings and significance were revealed to me. The contrasts between “dramatic tension and stability” (Rosen, p. 74) inherent in the classical style better captured the dynamics of my data analysis. The composers of the eighteenth century introduced structural, thematic, and tonal
contrasts that led to new and greater emotional complexity and musical energy (Rosen, 1972), mirroring my ongoing work I increasingly heard through the string quartets of Beethoven.

Lockwood, (2008) notes the string quartet emerged after 1750 as a new field for composers and a central vehicle for chamber music. The four solo strings of violin, viola, and cello afforded a “new range of tone colors and sonorities” and “an aesthetic arena for the four most agile and versatile of instruments, instruments that could blend perfectly with one another, shift their modes of expression with quicksilver flexibility, and engage in complex dialogues in a wide range of musical contexts” (p. 8). The complex dialogues and discourse that I charted and analyzed in my research data found voice in the late writing of Beethoven’s String Quartet in B-flat major, op. 130.

Imeson (1996) describes this string quartet as the most problematic of all Beethoven’s works for musical critics and the work most misunderstood and divided by contradiction. Imeson offers “keys to discovering the levels of meaning felt by many listeners below the frequently contradictory surface” (p. 155). My attempts to sort through layers and levels of meaning that surfaced through data analysis were supported and facilitated by my simultaneous attempts to discover meaning in the Beethoven String Quartet Op. 30 and I concluded my data analysis with the eight prominent themes previously mentioned. I proof-read my thesis drafts for submission to my advisor and experienced an uneasy questioning of results that caused great anxiety, and resulted in an e-mail of notification that I would miss my intended deadline. A critical friend suggested that perhaps I was over-thinking things. I agreed but couldn’t stop. Another friend suggested examining the literature on self-study and as I took this advice I began to hear a new genre of music. I began to hear jazz.
Constructing a New Framework

In a book about John Coltrane, jazz icon, author Ratliff (2007) quotes an interview Coltrane gave about his album “Giant Steps”:

*Giant Steps*, everything I did on that was a harmonic exploration, harmonic sequences that I wasn’t familiar with prior to that. I was working strictly from a chordal-sequential progression-pattern, and not melodically. It was easy to soon exhaust that harmonic thing. To write melodically is really the best way, because then you’re not going by this set rule or that set rule; it takes everything. It’s much more flexible and more far-reaching, for me, to write like that than to write from a harmonic basis. Now that I’m trying to write melody first, the melody will be that more important. Eventually I may derive some melodies which maybe have some quality, some lasting value of some sort. (p. 53)

These words exquisitely captured my current state of mind as I examined my data and writing. My dissertation was a metaphoric and literal “Giant Steps.” Like Coltrane’s work, mine was a harmonic exploration of carefully sequenced research methodologies recently acquired through PhD courses and readings and not part of any knowledge prior to these studies. I examined the harmonic theory as thoroughly as possible and I worked strictly and sequentially from a progression and sequence described in courses and the literature that I had studied. But the research framework I used to make sense of my data wasn’t sufficient. I exhausted “that harmonic thing” and needed something “more flexible and far-reaching” in order to create a work that might have some sort of lasting value. I needed a melody to free me from my harmonic bonds. I needed a “different image for characterizing the unfolding” of this “complex event” (Davis, 2005, p. 129). I found it in the notion of fractal geometries (Mandelbrot, 1982) and the
writings of complexity theory (Waldrop, 1992) used to understand and make sense of the
dynamics of complex systems.

Ratliff begins Chapter six of *Coltrane* with the title “two concepts going” and the
statement, “Coltrane ran as far as he could in one direction, then started running quickly in
another” (p. 89). Once again, Coltrane’s experiences mirrored mine. I experienced what Davis
(2005) has described as “interrupted frameworks” as I began to run in a new direction, re-
analyzing my data through a framework of complexity theory. This led to a thesis within a thesis
where “the researcher becomes the research subject” (Denzin & Lincoln, 2008, p. 50) as
described by autoethnographic approaches to research.

After lengthy re-thinking and re-analysis, I was relieved to conclude that rhythm is
indeed, an important semiotic resource for engaging meaning-making in both print and nonprint
literacies for early years children and does merit further research. Rhythm and reading can
transmediate meaning-making through intersemiotic learning experiences resulting in enjoyable,
engaging learning easily infused into everyday classroom or music classroom reading and music
experiences. I can reason that rhythmic language play should be regularly included in early
years classrooms as a cognitive tool that Egan describes has the potential to give “meaningful,
memorable, and attractive shape to any content” (2005, p. 3). I have the evidence to agree with
Egan’s assertion that the roles of rhyme, rhythm, and pattern in learning “are numerous, and their
power to engage the imagination in learning the rhythms and patterns of language—and the
underlying emotions that they reflect—is enormous” (p. 3).

As a result of data re-analysis through a complexity framework, I also came to agreement
with Davis (2005):
Clearly we can *prescribe* no outcomes in this situation. *However,* we needn’t throw up our hands in despair. While the actual outcome is unpredictable, the range of possibilities is not. That is, the domain of potentialities is *proscribed* by the quality of the system” (p. 130).

Instead of focusing solely on the “what” happened in my research and why, and limiting analysis to finding common themes, constructs, and explainable theory, I used complexity theory as an additional lens to examine variations and unexplained differences and to bring the “how” of the process more into focus. My research intervention, now re-named research “innovation,” fulfills the conditions for emergence for a complex educational system described by Davis and Sumara (2006).

As such, my innovation is unpredictable; I will not be writing the teachers’ “how-to” manual for my work. I cannot advertise certain or guaranteed results if teachers follow my design for rhythm and reading experiences. However, I *am* able to determine a structure and describe enabling constraints that will “help to determine the balance between sources of coherence that allow a collective to maintain a focus of purpose/identity and sources of disruption and randomness that compel the collective to constantly adjust and adapt” (2006, p. 147). This notion of enabling constraints is critical to complex emergence (Davis & Sumara, 2006). Davis and Sumara (2005) speak my language when they insist that complex possibilities cannot be “orchestrated.” Instead, they describe complexivist teaching as “occasioning” and describe complexivist action research as “a sort of *improvising*, in the jazz music sense of engaging attentively and responsively with others in a collective project” (p. 461). I can suggest the tools and structure that have the potential to create and nurture complex systems (Davis & Sumara, 2005) and to improvise transformative, meaning-making, and engaging processes for children.
I followed the advice of my critical friends from practice and theory. I listened to Somekh (2007) who advised that in transgressing the orthodoxies of research paradigms there is no need to throw away a life-time’s (or a PhD program’s life-time) knowledge, “if, instead, new epistemological understandings can be layered over the old ones to build a more intricate and complex set of understandings” (p. 202). And so I now take up the challenge of creating new layers to my work. I have a new melody, a new song to sing.

“I’ve found you’ve got to look back at the old things and see them in a new light”

John Coltrane

(In a 1969 interview with D.DeMichael for Down Beat Magazine, cited in Thomas, 1975, p. 131)

References


