Reading, Writing, Cheetahs, Oh My!: Literacy, Collaborative Learning, and Making Movies

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Abstract

Despair, hopelessness, frustration—this is how some children feel in school when they struggle with reading and writing. This is where our story begins for 9-year-old Katy (pseudonym) and her tutor, Melanie (first author). In this article, we describe interest-based, purpose-driven literacy activity mediated by digital technology tools as Katy and Melanie composed an informational *iMovie* about cheetahs. Using a case study design in which the tutoring dyad was our case, we drew upon the construct of *attunement* (Kaye, 1982) to understand how the emergent and contingent nature of their collaborative work unfolded and propelled both Katy's development as a literate person and Melanie's development as a teacher forward. Through this work we have come to understand *art, collaboration,* and *production* in new ways. The *iMovie product* and (related products) generated through Katy and Melanie's collaborative activity revealed *processes* (or what we have come to call *micro-productions*) that became key artifacts of their *aesthetic play* (Latta, 2004) that contributed greatly to their "final" product. Katy's play involved learning new technologies and literacy practices; Melanie's play also involved learning new technologies, as well as experimenting with putting literacy theory and research into practice. The dyad's artistic endeavors provide insights into the affordances of collaborative productions. Their movie could not have happened as it did without both Melanie and Katy contributing their ideas, questions, problems, materials, experiences, knowledge, and skills. More importantly, we know that each *micro-production* was saturated with affect—how Katy and Melanie invested their intensities, passions, and feelings/emotions (Deleuze & Guattari, 1987; Massumi, 2015). It was art-in-motion. Process art. Art that produces material and affective transformations in those who create it.

Despair, hopelessness, frustration—this is how some children feel in school when they struggle with reading and writing. Students who need it the most are getting the least amount of time to engage in motivating and meaningful literate activity (e.g., Allington & Walmsley, 2008) and instead, are often given skills-based activities largely involving worksheets. This is where our story begins for 9-year-old Katy (pseudonym) and her tutor, Melanie (first author).

In this article, we describe interest-based, purpose-driven literacy activity mediated by digital technology tools as Katy and Melanie composed an informational *iMovie* about cheetahs. We have come to understand *art, collaboration,* and *production* in new ways. The *iMovie product* and (related products) generated through Katy and Melanie's collaborative activity revealed *processes* (or what we have come to call *micro-productions*) that became key artifacts of their *aesthetic play* (Latta, 2004) and contributed greatly to their "final" product. Katy's play involved learning new technologies and literacy practices; Melanie's play also involved learning new technologies, as well as experimenting with putting literacy theory and research into practice. The dyad's artistic endeavors provide insights into the affordances of collaborative micro-productions. What we mean by *micro-productions* is somewhat counterintuitive in that they refer to intensive activities or processes that propel a project forward or alter its direction in significant ways. We construe these activities or processes as products of a certain kind because they were pivotal "moments" over the course of the overall macro-production of cultural artifacts like the Cheetah movie. Importantly, the Cheetah movie only happened as it did because both Melanie and Katy constantly contributed ideas, questions, problems, materials,

experiences, knowledge, and skills, and some of these contributions (which we are calling

micro-productions) turned out to be fundamentally important in the overall production of

the movie. More importantly, we know that each *micro-production* was saturated with

affect—how Katy and Melanie invested their intensities, passions, and feelings/emotions

(Deleuze & Guattari, 1987; Massumi, 2015). It was art-in-motion. Process art. Art that

produces material and affective transformations in those who create it.

Conceptual Framing: Attunement

> *Only connect! That was the whole of her*
>
> *sermon. Only connect the prose and the passion, and both will*
>
> *be exalted,*
>
> *And human love will be seen at its height.*
>
> *Live in fragments no longer.*
>
> *Only connect. . .*
>
> E. M. Forster, *Howards End* (1910/2008)

Attunement is the construct around which the entire argument in this article pivots.

We have borrowed this term from theory and research on interactions between children

and their caregivers and adapted it to think about learning-teaching interactions between

tutors and students. In his book, *The Mental and Social Life of Babies: How Parents*

Create Persons (1982), Kenneth Kaye used a decade of longitudinal research to argue that

early learning and development are rooted in social relationships—more specifically, the

interactions and relationships between infants and their caregivers grounded in caregivers'

projections of intentionality onto infants. As described by Kaye, such "exchanges with

adults that facilitate sensorimotor and later linguistic development require little from the

infant at first except regularities in behavior and expressive reactions that parents tend to

interpret *as if* they were meaningful gestures" (p. 3). Kaye viewed learning and

development in apprenticeship terms. Guided by his initial insights about how projection

functioned in early social relationships, he mapped the development of turn-taking

between adults and babies—beginning with what seem to be natural maternal responses to

infants' nonverbal cues to interactions with adults. Then, the adult responds to what they

perceive/project to be infants' intentions to symbolic verbal interaction or dialogue. This

mapping led Kaye to believe that the development of the infant's mind occurs as a

function of a dialogic process in which the parent continuously pulls the child forward,

eventually achieving a full partnership.

Drawing on Kaye's insights, Terman (1988/2013) claimed that "the shaping,

molding, and structuring of internal states. . . occurs by way of the vicissitudes of

attunement" (p. 125). In fairly simple terms, attunement involves harmony between

infants and caregivers; they achieve an empathic, synchronous state together. Other

musical metaphors such as resonance, rhythm, and chorus come to mind in this regard.

According to Stern (1985), attunement is the "performance of behaviors that express the

quality of feeling of a shared affect state without imitating the exact behavioral

expression of the inner state" (p.142). Successful attunement between infants and

caregivers involves a kind of empathic matching. For example, when an infant expresses

joy, pain, need, or frustration, the mother matches those feelings empathically and

responds to enhance or mitigate them.

Thinking with this construct in relation to interactions between teachers/tutors and students, we propose attunement refers to states in which their affective and cognitive dispositions are aligned, almost homologous. During these states, the people involved experience a sense of communion during which they want to be with each other, to share ideas and feelings with each other, and to dwell together in the moment or activity. Attunement typically involves emotional sharing, a joint focus on the activity at hand, and feelings of excitement, enjoyment, and satisfaction. In this way, we feel a connectedness to Csikszentmihalyi's (1982) concept of *flow* within teaching/learning in which there is "a deep, spontaneous involvement with the task at hand…[and through which] one is freed of the confines of the social self and may feel an exhilarating sense of transcendence, of belonging to a larger whole" (p. 22). More specifically, Csikszentmihalyi described the process of achieving flow within learning/teaching experiences to involve the essential affective element of *enjoying* the task at hand, and when the tasks involve others, enjoying those social interactions as well.

Critical Review of Research: Attunement in Practice

Among other things, attunement contributes to people's ability to relate to and learn from each other (Harvey & Kelly, 1993; Kaye, 1982; Maté, 1999), and it typically involves the following dimensions: (a) engagement in natural, pre-personal connections; (b) seeing possibilities in the unexpected; (c) embracing the ruptures and interruptions; (d) providing participants with psychological safety through affective engagement; (e) being cognitively challenged; and (f) enjoying satisfying dialogic experiences (Giles, 2010; Hamm, Farmer, Dadisman, Gravelle, & Murray, 2011; Lysaker, 2000; Lysaker, McCormick, & Brunette, 2006; Reeve, 2006; Reeve & Jang, 2006; Stevens, van Werkhoven, & Castelijns, 2001). In

the following sections, we review exemplary theory and research on each of these

dimensions.

Engagement in Natural, Pre-Personal Connections

When there is attunement between teachers and students, students usually

experience much more autonomy, choice, and latitude for inquiry. This, in turn, helps

teachers attune to students' needs and desires (Giles, 2010; Hamm et al., 2011; Reeve,

2006; Stevens et al., 2001). In essence, the teaching-learning interactions take on a more

natural quality—teachers look for teaching opportunities within student-led activities.

As teachers respond to students' interests and activity, they often do so in ways that

are more or less unknown to students. Some scholars have referred to this as the teacher's

"invisible hand" (Bierman, 2011; Gest-Rodkin, 2011; Hamm et al., 2011; Hughes & Chen,

2011; Farmer, Lines, & Hamm, 2011; Kindermann, 2011; Luckner & Pianta, 2011). This

metaphor represents the rarely considered role teachers play in students' peer relations,

intentionally or not, that contribute to the social dynamics of the classroom (Farmer et al.,

p. 247). Teachers who are well- attuned to their students, balance routines and student

autonomy, as well as the social needs of the classroom community and the individual needs

of each student (Hamm et al., 2011). They also more readily recognize social similarities

and differences in their students, helping them recognize complementary social

relationships, such as leaders and followers and victims and bullies (Farmer et al., 2011).

This becomes useful information for those critical moments in teaching—using their

invisible hand to suggest work groups and peer support teams for learning.

As described by Parshad, Joshi, and Sanbighna (2012), this sort of pre-personal

aspect of attunement bears a strong family resemblance to the Heideggerian concept of

Daesein's "being- with-others…almost a subliminal connection between people" (Parshad

et al., n.p.). This could be why reflexivity on the part of the teacher is so critical to attuning

to students. In this regard, Lysaker et al. (2006) discovered that less successful tutors who

struggled to make meaningful connections with their reading buddies "demonstrated little

reflection in their writings and often positioned themselves as experts" (p. 42) while at the

same time placing the onus of non-success on the buddy's lack of ability, background

experiences, or motivation. In contrast, more successful tutoring pairs had pre-service

teachers who went beyond describing what happened in tutoring encounters to wondering

about what they saw, why it happened, what role they played, as well as puzzling over the

emotional and relational needs of their buddy.

Seeing Possibilities in The Unexpected

To make such connections, Stevens et al. (2001) found teachers needed to take on

the perspective that even the students who struggled with the prescribed curriculum were

able to achieve their goals. This required the teacher to view the experiences from the

student's perspective. Stevens et al. also posited that, if teachers reconsidered what they

interpreted as *off- task behavior* as behavior born out of a sensible decision (possibly to

avoid failure or perceived lack of skill/knowledge), they became more readily attuned to

their students. Similarly, Lysaker et al. (2006) found more successful tutors exhibited

ongoing hopeful visions of the future possibilities for their reading buddies—visions from

"just getting better at reading and writing to wishes for empowerment" (p. 32).

Drawing on Merleau-Ponty's concept of *embodied knowledge*, Latta (2004)

extended this thinking of envisioning to include both teachers and students. Among other

things, she found that both teachers and students form their perceptions through the

"anticipation of the whole; the lived conjunction of body-world in an ever

organizing/reorganizing movement" (p. 220). She described ongoing work between teacher

and students as *aesthetic play* where *aesthetic play* refers to the "attunement to the creating

process grounded in the act of making" (p. 213 in "uncharted ground [that] requires fragile

exploration in order to make one's way as a student and teacher" (p. 222) and involves

"qualities of attentiveness, personal involvement, emotional commitment, felt freedom,

dialogic inquiry guided, projective, and self-consciousness, folding, unfolding, and feeding

back into each other and themselves" (p. 219). Latta also noted that teachers had a Dewey-

like confidence in the possibilities of their experiences, using time as a "necessary aspect in

order for teachers and students to be able to dwell in learning situations long enough to

wonder, question, and actively participate in learning encounters" (pp. 214-215).

Ruptures and Interruptions

One key dimension of *aesthetic play* Latta (2004) describes is the fact that the

creative process is inherently fragile:

> Undoubtedly, *fragility* stirs much unease in educational communities....as I
>
> participated with teachers and students negotiating curriculum…I saw the continual
>
> creation of space for teaching and learning perpetuating this fragile nature. The
>
> ruptures and interruptions demanded attunement to process. Teachers constantly
>
> facilitated learning connections with students. (p. 212)

Latta also noted that the more teachers exhibited confidence in the creative process, the

more students echoed their confidence by approaching learning as adventure, following

curiosity and interests, and taking responsibility for their engagement in "open-ended and

interdisciplinary" (p. 215) investigations. Attunement redefined!

The fragility involved in attunement processes requires teachers and students to pay close attention to one another and to develop a sensitivity to how they feel and think, which drives them to listen more and to want to know others' wants and needs (Reeve, 2006). When ruptures, interruptions, and other fragile moments arise, they want to feel close to one another, engaged in a kind of relationality that fosters happiness, sensitivity, responsiveness, hope, positive tone, reciprocity, and reflexivity" (Lysaker et al, 2005, p. 29). In this regard, Lysaker (2000) analyzed a tutoring experience she had with Paul, a disenfranchised boy in first-grade whose activity during reading time in the classroom could be described as wholly-disinterested. Yet even after one tutoring session, Paul reciprocated Lysaker's investment in him. Upon seeing Lysaker enter the classroom, he immediately gave her a hug; arranged their work space, often placing a book he felt confident reading in a special corner; and placed two chairs side-by-side, close together for the two of them to sit, legs and shoulders touching. Theirs was fragile work that led Lysaker to realize her experiences with Paul were opportunities to re-imagine literacy learning as primarily relational and involving attunement to/with one another.

Providing Participants with Psychological Safety Through Affective Engagement

To be psychologically safe is to recognize and act upon the melding of affective and cognitive dimensions of being and doing with others—in essence, attuning to one another. In Massumi's (2015) terms, such attunement involves:

> snapping us to attention together, and correlating our diversity to the affective charge this brings, energizing the whole situation. And it's the idea that this happens at a level where direct bodily reactions and our ability to think are so

directly bound up with each other that they can't be separated out yet from each other, or from the energizing of the event. (p. 115)

The work of Poulsen and Fouts (2001) is instructive here. They found that upper elementary-age children's content learning improved when their teacher built an infrastructure designed to promote affective attunement. Interestingly, their modification for "attunement teaching" was more nuanced or indirect than that of many other attunement scholars. Instead of teaching social studies and mathematics in traditional ways (e.g., textbook/worksheets), teachers had children engage in drama-based role-playing and imaginative play in connection with the targeted content. Overall, when they found that with more instances of teacher-student attunement, students' academic achievement was also higher. Yet they also found that the children were "more emotionally expressive and involved with the teacher, resulting in the matching and sharing of internal states between teacher and student" (p. 189), creating safe psychological and affective spaces for learning.

Stevens et al. (2001) revealed such safe spaces are not only important for students; they are also important for teachers. They found learning to teach from an attunement disposition is not easy, takes time and patience, and requires the internalization of a belief in attunement strategies, as well as changing how one perceives students (Stevens et al., 2001). Their work demonstrated the importance for teachers to also have a safe space in which to practice. The key to psychological safety for both students and teachers appears to be the intentional focus on affective dimensions within relationships.

Giles (2010) described this as an "embodied process of 'being-in-the-play' [involving] a dynamic reciprocity as each person is a 'becoming' that opens in the movement of the situation" (p. 1512). "Being-in-the-play" involves being-in-relationship

to, with, through one another, which allows the players to share ideas and have "a resourceful mind that is called into play in, and responds uniquely to, the situation in which these ideas are to be realized" (Dunne quoted in Giles, p. 1512). Revisiting Lysaker's (2000) work with young Paul, we can view their collaborative literacy work as embodied ways of "being-in-the-play"—student-arranged seating for bodies to touch, intentional placement of psychologically safe texts, and hugged greetings. It can be considered "more-than-Oneness of the body [that] is always already collective, cutting as it does between life-welling and life-living…activating the body-becoming" (p. Manning, 2010, p. 117).

Cognitive Challenge

Attunement between teachers/tutors and their students facilitates being connected-present-with-to each other in the moment, thus enhancing focus and attention, interest in the tasks at hand, motivation for prolonged engagement for teachers and students, and joint purposing (Hinchion, 2016; Latta, 2004; Lysaker, 2000; Lysaker et al., 2006). Yet joint purposing "is something to be worked toward, rather than something necessarily present at the beginning of the creating process" (Latta, 2004, p. 223), which makes the whole process cognitively challenging for teachers/tutors and students. Additionally, Latta found attunement- based teaching/learning experience fostered participants' meta-awareness of themselves as *thinkers* who are involved in making and creating, of things, ideas, skills and more holistically, who they are as humans.

Making, creating, thinking—these are all emergent process that "have to be extracted from the field of complexity on the fly, performatively" (Massumi, 2015, p. 116). Such unpredictability and chaos can create insecurity, which Massumi and Luhmann

(1979) agree is wed to security. In fact, based on Luhmann's work, Massumi suggested "to

produce security with any regularity…you have to produce the insecurity it's predicated

on" (p. 116). This does not always align well within normative systems in which most

teachers and students work where learning is quintessentially tied to individual

performance and achievement and not relational activity. In fact, Stevens et al. (2001)

suggested that "in school, relationship is mediated through performance instead of (what is

naturally the case) performance being mediated through relationship" (p. 15). Contrary to

this system, scholars and educators who have studied attunement in teaching/learning

experiences have firmly demonstrated the nature of learning to be intrinsically tied to

attending to the whole person—cognitive, affective, embodied, and social.

Satisfying Dialogic Experiences

When teachers and students attune to each other, their relationships are different—

they are in constant *dialogue*. Here we mean *dialogue* in its holistic Freireian sense—joint

meaning-making that takes place through words *and* actions and that blurs the lines

between "teacher" and "student:"

> Through dialogue, the teacher-of-the-students and the students-of-the-teacher cease
>
> to exist and a new term emerges: teacher-students with students-teacher. The
>
> teacher is no longer merely the one-who-teaches, but one who is himself taught in
>
> dialogue with the students, who in turn while being taught also teach. They become
>
> jointly responsible for the process in which all grow. (Freire, 1986, p. 67)

Lysaker et al.'s (2006) study of pre-service teachers' tutoring work with their young

reading buddies is a good example of this phenomenon. More successful tutoring pairs

operated in more dialogic ways. For example, one tutor wrote in her journal, "My buddy

and I read for enjoyment. I read *Seed Folks,* while he read more poems. Then we shared

what we read" (p. 35). In many of the journal entries collected by Lysaker et al., tutors used

the word "we" to describe their co-learner stance. Latta (2004) described such interactions

as *dialogues of faith* in which participants "venture into the unknown with an audacity and

tentativeness. . . [and] respond to the call [that] necessitates centering/embracing fragility as

a productive power alive within the act of creating" (p. 224).

Concluding Thoughts

Thinking across this body of literature, we are struck by how little attunement in

teaching/learning is fostered in formal learning environments. Not much has changed since

Dewey (1919/1944) introduced the understanding that learning in most formal learning

environments is divorced from our natural inquiry processes. Instead of attunement, we

seek compliance, conformity, and individual achievement from the students. And time and

again teachers are subjected to professional development that they perceive to be irrelevant

to what they need to improve their day-to-day practice (e.g., Jones & Dexter, 2014;

Stevenson, 2004). Yet students want to be heard and understood as "cognitive and socially

competent co-players with the teachers" (Stevens et al., 2001, p. 15). The research we

report in this article was conducted in a space that valued, even encouraged, attunement—a

space in which a tutor and her tutee could be creative, could find joy in learning, and could

grow with one another both personally and academically (Miller, 2000).

Methods

Research Question and Research Design

A two-fold question guided this study: How might responsive tutoring activity

between a tutee and her tutor unfold, and how might these processes fuel the learning and

development of both tutee and tutor? To address this question, we used a case study design

(Stake, 1995) in which the tutoring dyad was the case. Following Cole and Engström's

(2007) insistence that units of analysis for studying human activity should be molar—

involving all aspects of the activity system under study—our unit of analysis was *the-dyad-*

in-activity-using-cultural-tools-to-accomplish-a-task-with-a-defined-goal.

Setting and Participants

This study took place within a responsive literacy tutoring program serving children

(grades K-6) at a university located in the Rocky Mountain region of the United States. The

program foregrounded children's interests and learning purposes as individual curriculum was

designed for each student. Tutors were students in graduate literacy education (masters/doctoral)

and mentored by professors in literacy education. Tutors and tutees had access to many different

newer technologies, such as *Apple* and PC computers and printers, the Internet, *iPads*, cameras,

video recorders, videos, and a host of software. Although their work was not focused on these

technologies, tutoring pairs used them seamlessly with more traditional tools such as white

boards, journals, books, magazines, and many different art and writing tools.

Tutee. Katy was a student in third-grade who was referred to the program by her

parents because she had been labeled a struggling reader, especially with respect to

decoding, fluency, and comprehending informational texts. She exhibited negative views of

literacy and was apprehensive to engage in traditional school-based literacy activities (e.g.,

reading books, writing stories/reports). When this study began, she was participating in two

literacy intervention programs at her school—one-on-one and in a small group.

Tutor. Melanie was an experienced elementary teacher and literacy specialist in her

third year of doctoral studies in literacy education. Importantly, Melanie was a full

participant-observer-researcher in this project. This positioned her as a critical inquirer

invested in the "we" she and Katy brought into being (Jones, 2017)—a "we" that was

"already speaking before it [uttered] any words" (Butler, 2015, p. 156). Finally, because this

"we" was an ever-becoming phenomenon, Melanie's presence as an "insider" was

extremely helpful in coming to understand how Katy and Melanie attuned to/with one

another across several months of collaborative activity (Jones, 2017).

The Project

During 10 one-hour tutoring sessions, Katy and Melanie read about cheetahs and

composed a multimodal information report using a number of digital tools including

iMovie. The sessions were not always held a week apart. As happens in many tutoring

situations, there were some weeks that Melanie had other obligations and others in which

Katy was ill or on trips with her family. Altogether, their work on this project encompassed

three and one-half months. In this project, Melanie foregrounded Katy's interests (cheetahs)

and purpose (making an *iMovie* to show her family and friends) during all of their work

together. This meant that the course of each session emerged in a more organic fashion than

is usually found in most formal tutoring/intervention programs (e.g., Allington &

Walmsley, 2008).

Data Collection and Analysis

We audiotaped all sessions and Melanie transcribed them; we collected all artifacts

produced; Melanie wrote observational notes and reflective journal entries related to

Katy's literate activity and her own questions, concerns, and reactions regarding her

teaching.

Our analyses unfolded rather emergently. First, Melanie created a timeline of the

talk and social interaction between her and Katy across the entire Cheetah movie-making

project (approximately 10 hours). Although this process allowed us to become very

familiar with our data, it did not yield many analytic, interpretive, or explanatory insights.

Disappointed and flummoxed by this realization, George recalled Erickson's (1996)

seminal insights about the relations between talk and social interaction and the rhythmic

quality of musical scores, and thought they might be useful. He explained to Melanie that

Erickson's insights are based on the Greek terms for time, "kronos" and "kairos."

"Kronos" refers to the rhythmic cadence performed by prosody and body motion.

"Kairos," refers to the time of tactical appropriateness, the time or timing that feels right

for a particular purpose. When interlocutors are attuned, both "kronos" and "kairos" are

synchronized; when they are not, these aspects of time and timing are dissonant, out of

synch. George then suggested that Melanie mine the data for instances of interactional

rhythm/attunement and instances of interactional dissonance/discord and determine

whether and how these interactional patterns resonate or align with our theoretical framing

constructs.

Working with these basic ideas, Melanie closely examined the entire set of interactions

between her and Katy looking for instances of interactional harmony and instances of

interactional dissonance. What she found was quite amazing. She identified seven clear

instances of interactional dissonance in the data set, and she noticed that each instance was

somehow resolved and followed by a clear instance of interactional harmony or attunement.

Furthermore, each of these dissonance-attunement pairs involved some crucial dimension of

literacy learning and development (e.g., categorization, spelling, comprehension, fluency). Much

like how Erickson (1996) mapped the rhythmic organization of questions and answers in

classroom discourse, Melanie then mapped the rhythmic organization of moments of

interactional dissonance and interactional attunement that occurred between her and Katy as they

produced their *iMovie* about cheetahs, eventually creating a dissonance-attunement pair

chronology (see Table 1). In the table, we show the range of dissonance and attunement within

each pivotal moment by placing a "K" (Katy) and an "M" (Melanie) on an attunement

continuum. When both the "K" and the "M" are in the center of the continuum, Katy and

Melanie are perfectly attuned. When the "K" and/or the "M" is toward the end if its side of the

continuum, that person or persons experienced dissonance. The distance of the "K" or the "M"

from the center of the continuum indicates the degree of dissonance experienced by Katy or

Melanie. In addition to this graphic representation of dissonance and attunement, we provided

brief descriptions of Katy's and/or Melanie's cognitive, relational, and affective behaviors that

we used as evidence for our dissonance-attunement judgements.

Table 1
Attunement and Dissonance Chronology

Session	Attunement/Dissonance	Katy	Melanie
	Dissonance / Attunement / Dissonance Katy — Melanie		
Before 1st Session	*Dissonance Moment #1* K_____M	Apprehension toward school-based literacies + distraction talk about cheetahs in 3 consecutive sessions	Reading about affect and learning.
1	*Attunement Moment #1* _____KM_____	Ask to make a Cheetah movie	Redefine "distracted talk" about cheetahs as "affective investment" - Introduce reading/writing about cheetahs
2	*Dissonance Moment #2* K_____M__	Disengagement with traditional texts	Present traditional cheetah resources (e.g., books, magazines, videos), talk with mentor
3	*Attunement Moment #2* _____KM_____	Excited talking, full engagement! Content-based file-naming	Introduce "image-first" approach to composition
4	*Dissonance Moment #3* _____K____M	Continued excitement	Feeling lost as a teacher—allowing Katy to take the lead
	Attunement Moment #3 _____KM_____	Organizing pictures into themes about cheetahs—where they live, what they eat, how they move, etc.	In awe of Katy's sophisticated text structure
	Dissonance Moment #4 _K_____M_____	Reading online—struggling/frustrated with comprehension and vocabulary; resists a word wall	Trying to support—reading texts aloud/talk, suggesting word wall
5	*Attunement Moment #4* _____KM_____	Identify new vocabulary, writing narration (first writing of connected text in front of Melanie)	Read literature on comprehension and vocabulary—introduce "Vocab Convo" to support self-monitoring
6	*Dissonance Moment #5* _K_____M_____	Sensitivity to unconventional spelling, difficulty reading her writing	Introducing voice recording of narration
7	*Attunement Moment #5* _____KM_____	Excited about typing and spell check, asking to re-read her text to get it "just right"	Suggesting typing—use of spell-check improving decoding by reading through the entire word, supporting fluency
8	*Dissonance Moment #6* _____K_____M	Frustrated with recording but can't figure out why	At a loss, talk with technology expert
9	*Attunement Moment #6* _____KM_____	Using *Audacity,* "Hey! I didn't pause at all!"	Pointing out no pause using visual voice frequency with *Audacity*
	Dissonance Moment #7 _K____M_____	Frustration with editing in *iMovie*	Instinct—to take on more of the work, is this right?
10	*Attunement Moment #7* _____KM_____	Completing the *iMovie,* showing it to family and classmates, "Can I write another one on ferrets?"	Tears of joy regarding their accomplishment!

Finally, following Geertz's (1973) strategies for constructing "thick description," We (Melanie and George) worked together to unpacked each dissonance-harmony pair in as much detail as possible. This accounted not only for what Katy and Melanie were thinking, saying, and doing but also for how their thinking, saying, and doing had particular meanings and effects based on the various aspects of context including their goals, the task at hand, the details of their inquiry, their emotional states and investments, their emerging social relationship, and various webs of social relationships in which their emerging relationship was embedded. Our theoretical framing constructs were very useful for doing this analytic, interpretive, and explanatory work.

Findings

Again, we identified and unpacked seven key moments of dissonance and attunement that propelled the literate activity, Katy's learning, and Melanie's teaching in powerful ways. In the early tutoring sessions, Melanie tried to tap into Katy's interest in *iPad* technologies to support her literacy learning. They read interactive electronic stories in which the story was moved forward through a series of choices and playing games. Through these interactions, Katy began to become less self-conscious about reading aloud to Melanie but she refused to show Melanie her writing. She wanted to keep notes on the story they were reading but would do so in a notebook shielded from Melanie's view, and she always took this notebook home with her at the end of each session. Also during these sessions, Melanie noted Katy participated in the reading activity yet she was often distracted from the story and engaged Melanie in conversations outside of the current task. She also counted down the minutes until the sessions were over. Overall, she was compliant but less than enthusiastic about the activities Melanie had designed.

It was clear to Melanie that motivation would be a key factor in supporting Katy's literacy learning. She immersed herself in that literature and created a motivation checklist

to use as they made decisions about what types of literacies would be a part of their work

together. Drawing on scholars such as Guthrie, Hoa, Wigfield, Tonks, and Perencevich

(2006), Alexander and Murphy (1998), and Turner and Paris (1995), Melanie constructed

the following guiding questions as a checklist:

- How is this activity linked to Katy's interests in people, animals, things,

  ideas, or processes?

- What choices does Katy have with regard to texts and processes?

- How do the texts and tasks fit with Katy's level of literacy development?

- How can Katy have autonomy over the learning process?

- How can Katy and I collaborate—sharing knowledge and skills?

- What meaning is Katy interested in constructing?

- How can our activity have meaning in the real world of Katy's life?

Using this list of guiding questions, the activity that unfolded looked and felt dramatically

different than anything Melanie had experienced before. It was structured, but not; planned

and emergent; completely obstructed at times; propelled forward at others. Melanie

identified this experience as a transforming one for her as well as for Katy. We identified

seven key moments in which Katy and Melanie became attuned to one another. During

these moments of attunement, their learning and development was propelled forward. Yet

the moments of dissonance were just as important because they indexed a problem to

address and pointed them toward a productive flow of activity that led to attunement.

Attunement Moment #1: Introducing Reading and Writing about Cheetahs

Upon reviewing her fieldnotes from previous sessions, Melanie noted Katy's

interest in cheetahs. She had categorized these conversations as "distracted talk" because

they appeared to distract them from engaging in the focal literate activity of reading and

interacting around the *iPad* story. Yet based on her readings on the role of affect within

learning, she recognized Katy's interests as intense investments. Massumi (1995) described

affect as intensity owned and qualified through emotions. This concept fit with other

scholars' thinking in which motivation in literacy has been tied to personal investment

(Alexander & Murphy, 1998) and situated motivation that supports general motivation

(Guthrie et al., 2006). Melanie had made notes about a change in Katy's voice, gestures,

and facial expressions when talking about cheetahs. She had talked excitedly using her

hands and sometimes her whole body to show how cheetahs moved; she had used animated

facial expressions that revealed her passion and excitement about them; and she had

mentioned family members who loved cheetahs too.

Feeling a sense of dissonance with Katy even though she was compliant, Melanie

paid closer attention to these somatic and social affective markers, and she came to view

their cheetah conversations very differently—seeing them as passionate intensities charged

with emotions—or *affective investments* (Bialostok & Kamberelis, 2012). Based on this

change, Melanie decided to ask Katy if she would like to learn more about cheetahs during

their time together. Katy immediately asked if she could make a movie about them! She

also identified a real-life purpose for her composition: "Then my family and people at

school they can watch my movie and learn about cheetahs too!" Melanie showed her a

number of digital stories and short informational videos online to show her different movie

genres and Katy chose to make an informational movie using *iMovie,* a tool with which she

already had some familiarity.

As Melanie reflected upon this interaction in her researcher journal, she recognized this

moment as affectively different from what she had experienced previously with Katy:

> *I was shocked at her immediate response to this suggestion! Wow! What a*
>
> *change in her motivation! The implications this has for the role of affect within*
>
> *literacy intervention is huge! Of course, we'll have to see how it plays out but this*
>
> *is definitely the most excited I've seen her since we started. And, she identified a*
>
> *real purpose for the activity. I think this is huge. All the motivation stuff I've been*
>
> *reading by Guthrie and others all have "authenticity" as a key aspect of*
>
> *motivation. Yet, I admit that although I've been trying to tap into her interests*
>
> *with mysteries, all the literate activity I had suggested were really just for literacy*
>
> *sake. This is what I've always done through a Reading Recovery type approach.*
>
> *[Katy] has made me really challenge my practice—to make it match my beliefs as*
>
> *Harste, Woodward, & Burke (1984) talk about.*

This was one of the first times Melanie had a meta-understanding of transformations that

were taking place in her own thinking, feeling, and acting. In and through her work with

Katy, Melanie was transforming her practice as well as how she felt about that practice as

well.

Attunement Moment #2: Taking the "Image-First" Approach to Multimodal Composing

As Melanie prepared for the next session, she read selected journals and book

chapters centered on the creation of digital stories and other kinds of texts (e.g., Albers &

Sanders, 2010; Bowen & Whithous, 2013). She noted that many of these authors

suggested a similar creative path: research the topic and outline the story plot (or other

text structure), create a storyboard to plan out the text/images, write the script, locate

multimodal elements (images, sound, words) to accompany the script, and finally edit all

items together in a digital media tool (e.g., *iMovie*). To begin their research, she brought

in a collection of books and magazines on cheetahs. When Katy saw the materials, she

commented, "What happened to the movie idea?" A bit surprised by her response and the

dissonance it indexed, Melanie explained the process involved in making a movie,

beginning with research. As they moved forward, reading a few magazine articles, Katy's

excitement waned rapidly; she had little interest in reading the books and magazines

Melanie had brought even though they were about cheetahs. Noting the dramatic change

in Katy's affect, Melanie made the decision in the middle of the session to put the books

aside and begin to find online resources about cheetahs. Katy's excitement for the work

returned almost immediately. They were once again attuned to each other and the task at

hand. This dramatic rupture made Melanie realize how fragile their partnership was

(Latta, 2004). She learned the importance of paying close attention to Katy's affective

states, especially Katy's rapid changes in affect in either direction. In this instance, Katy's

affect become positive and the dyad experienced a new sense of closeness (Latta, 2004)

almost immediately after Melanie refocused their activity to Internet-based research.

They were developing what Lysaker et al. (2006) saw in successful tutoring pairs, an

environment in which things like happiness, sensitivity, and hope dwell.

However, Melanie began to feel some professional dissonance about the approach

she was taking, an approach that was quite different from the types of literacy

interventions she had facilitated in the past. Even when she focused the activity on topics

of the child's interest, she had always designed the sessions with a set protocol of

comprehension work, vocabulary support, writing composition support, and word work, and she was uncomfortable with so little "structure." Yet Katy challenged her previous experience because she rejected (flat out refused at times) these more traditional forms of instruction (e.g., book-reading, writing with pencil and paper). Melanie shared her concerns with George (mentor and second author), and he encouraged her to trust her instincts, which were based on the research and theoretical literature they had been reading and discussing. She noted in her reflective journal, *"This feels so weird! Like uncharted territory. Well, I think I'll trust George and see where she can take it next!"*

As the next session began, Melanie suggested, "So I was thinking about our cheetah project, and I thought you might like to find some pictures today for it!" Katy responded, "Cool! I know how to do it! You just go to Google!" With unusual focus, Katy diligently found and downloaded over 20 images talking excitedly about what she noticed and wondered about them. She also created content-based file names when saving pictures—names such as "get him" (cheetah charging prey) and "cool yum" (cub chewing a fresh piece of meat). With many of the file names, she asked Melanie for spelling support. She also actively constructed knowledge about cheetahs—noting cheetah attributes, behaviors, habitats, etc., and generated questions to pursue. This experience was exciting and motivating for Melanie too, as indicated in the following reflective journal entry:

> *I couldn't write fast enough to document all the amazing literacy work she was doing! Right there within this activity that she couldn't get enough of were supports for comprehension through building of background knowledge and asking questions, as well as her spelling [words within file names]!*

Both Katy and Melanie were surprised when the session was over, and Katy asked if she could stay longer—a definite moment of attunement for which there are many discursive markers in our data set. For example, both Melanie and Katy referred to their work as a collaborative project. They almost always used the words "we" when talking about their co-laboring and "our" when referring to the project. Although this was Katy's choice of topic and product, Melanie became just as invested in it as Katy did. Attending to moments of dissonance and attunement turned out to be important in guiding Melanie in her growth as a teacher. In fact, she began seeing Katy as *her teacher*. Her work was becoming what Matusov (2009) would describe as *dialogic*. They were thinking, making, and creating together (Massumi, 2015) and they both were beginning to feel more secure, a quite welcome change from the insecurity they both had experienced when they first started working together. Melanie began to recognize changes in her identity and practice—she recognized the symbiotic relationship between insecurity and security (Luhmann, 1979; Massumi, 2015), between dissonance and attunement. She was becoming a different teacher who was doing things differently than she had done before.

Attunement Moment #3: Thematically Organizing Her Text

As we mentioned, Melanie's experience with Katy was very different from her experience tutoring other children. In particular, it was much less predictable, more contingent, and more emergent. This induced some dissonance in Melanie, but this dissonance was mitigated by the fact that Katy seemed to be developing increasing amounts of knowledge about various dimensions of literacy, as well as metacognition about her own literacy knowledge, skills, and purpose. Increasingly, Melanie trusted that Katy would lead them in directions they needed to go to complete the *iMovie* project successfully. This trust

was pivotal in Melanie's growth as a teacher. She realized that, although she espoused

"student-led" learning, she had never fully trusted it—a very interesting paradox. Her

concerns were both theoretical and practical as is evident in this excerpt from her reflective

journal written right after the image gathering session we just described:

> *This session was inspiring! It makes me think that maybe literacy intervention*
>
> *doesn't have to be structured with literacy tasks for literacy learning sake. We did*
>
> *a ton of word work today and she wasn't even really aware of it. Well, that's not*
>
> *accurate, she was FULLY aware and engaged but she didn't see it as work.*
>
> *Essentially, what we did today is what we all do when we are interested in*
>
> *something—we use literacy to accomplish our goals. It makes me wonder why we*
>
> *think that in order to learn more conventional literacy skills we have to do*
>
> *something decontextualized? If what we need to teach children is what they are*
>
> *going to need for their everyday lives, can't we teach it within what they want to do*
>
> *within their everyday lives? Food for thought...*

For the next session, Melanie printed out the pictures Katy had saved and laid

them out on the floor (Figure 1).

Figure 1. Cheetah Pictures Waiting to be Organized.

Shrieking, "My cheetah pictures!" when she arrived at the session, Katy asked, "What are

we going to do with them?" Considering the goal of giving Katy autonomy over the

process, Melanie responded, "I don't know. What do you think we should do with them?"

They stood silently together, surveying the images. Melanie reflected on this moment

later, "*It was so hard to just stand there! But before I knew it, she was circling the*

pictures like a cat on the prowl." Katy, however, soon took action, "Hey! These two are

about how cheetahs sleep, so I think I'll put them together … and these ones are about

what they eat. Those could go together too!" She continued to organize the pictures until

she had created eight categories— sleep, body, playing, family, art, eating, living, and

attacking (Figure 2).

Figure 2. Katy Organizes Her Cheetah Composition Beginning with the Pictures.

She also wanted to write title cards for the categories and put the pictures from each

category into a different folder to keep them organized.

Another important breakthrough occurred in this session. Previously, Katy had

always hidden her writing from Melanie—both while composing and after she was finished

composing. In this session, Katy wrote in front of Melanie for the first time. Although Katy

was not aware that Melanie noticed this, Melanie was fully aware of it; and her awareness

was deeply affective, almost bringing her to tears:

> *As I watched her write the title cards and folder titles filled with misspellings I*
>
> *began to understand her hesitancy to letting me see her writing previously. I*

wonder, how have adults responded to her writing in the past that she has been so

reluctant to let me see it?

In that moment of attunement, not only were their practices aligned but Katy's and

Melanie's hearts appeared to beat with the same rhythm as well. Katy seemed to feel safe

enough to risk allowing Melanie to see her writing, and Melanie felt empathy for what she

envisioned were many painful experiences when Katy's writing (especially her spelling)

had been criticized, perhaps even ridiculed.

Here we are reminded of Lysaker's (2000) insights into the role of empathy in

attunement. Reflecting on her interactions with her often disenfranchised tutee, Paul, she

pondered how by entering into his meaning-making processes she found it much easier to

meet his literacy learning needs in comparison to "meeting the needs of the alienated

young person he was becoming" (p. 483). Melanie also felt this pull, to invest herself in

Katy not only as a literate person, but as a person who had legitimate things to offer the

world.

Attunement Moment #4: Writing Self-Selected Vocabulary and Script

Narration

Once the images were organized, Katy engaged in lines of inquiry about each

category. For example, after viewing the images of cheetahs sleeping she asked, "I wonder

if cheetahs snore?" For each category, she created a list of questions she wanted answered;

then Katy and Melanie took to the Internet to try to answer them. During this activity,

Melanie realized that Katy needed to learn how to evaluate sources. Katy had typed "Do

cheetahs snore?" into her Google search. She clicked on the first response, which was on

answers.com. The response simply said, "Yes, a cheetah does snore!" She immediately

wrote it down without checking to see who wrote it. Using her knowledge in this area,

Melanie modeled for her how to evaluate online sources. Perhaps because this was Katy's

first experience with fact-checking, Katy broke the process down into two essential

questions, and she wrote them on what she called an "Evaluation Card:"

- Who wrote it and what makes them an expert? (author credibility)

- Does the person want me to think something about cheetahs? (Author

bias) Katy eagerly taped her card to the top of the computer screen to use as a

guide and as they continued their research, and she usually referred to it after each

click.

Yet Katy experienced some dissonance as she struggled with some of the

vocabulary words in the texts she was reading. Many of these online texts were not ones

Katy could read on her own. She needed support with decoding and vocabulary.

Recognizing the large amount of new vocabulary Katy was encountering, Melanie

suggested a word wall where she could keep track of the words she was learning. Katy

rejected this strategy immediately saying, "I don't want to use a word wall." By this

point, Melanie was more accustomed to having her suggestions rejected, especially ones

that involved more traditional literacy tools. So, although this moment threatened to be a

dissonant one, Melanie didn't belabor the issue as is evident in a response she recorded

in her reflective journal:

> Her resistance to a word wall was interesting. It makes me wonder if they use
>
> them at school and so just the name of this tool immediately makes her not want
>
> to use it! I guess we'll figure out something else.

In essence, Melanie and Katy had developed a *dialogue of faith* (Latta, 2004) with one

another— they felt audaciously yet tentatively comfortable, venturing into the unknown of

their work together. They were recognizing the productive power inherent in their "fragile

moments."

Melanie became accustomed to turning to professional literature in such moments,

which is what she did between the 4th and 5th sessions. Reading literature on effective

vocabulary instruction, she noticed the importance of talk to support vocabulary learning

(e.g., Dawes, 2004; Swain, 2000). This reminded her of her own experience with learning

new vocabulary words in high school Spanish classes. Her teacher had introduced them

to a strategy she called "Vocab Convo"—in which they would ask to have a "Vocab

Convo" (conversation with the teacher or another student) when they encountered a word

they did not know. As they returned to reading in the 5th session, Melanie suggested this

approach. She introduced the strategy, name and all, to Katy and suggested that, when

Katy read an unfamiliar word, she could let Melanie know she needed a "Vocab Convo,"

and they could talk about the word. Katy was enthusiastic about this strategy and would

often, in a playful yet formal voice, say something like, "Oh! Another vocab convo, I

would suggest" when she ran across an unknown word. Additionally, Melanie and Katy

would often have extensive conversations about words—discussing how the unknown

word reminded them of other words, how they knew a part of the word, or where they

had seen the word used before.

As time went on, however, Melanie noticed that Katy was not remembering the

meanings of words they had already encountered and talked about. When she mentioned this

to Katy, Katy decided to write each new vocabulary word down on a card, along with its

meaning. Knowing Katy's proclivity for the visual, Melanie encouraged her to draw an

image to go along with the definition to help her remember it (e.g., Manyak et al., 2014).

Melanie reflected later on how this turn of events linked to what she had read about the role

of autonomy in literacy learning:

> *Turner and Paris (1995) said,* "A significant goal of literacy education is to
>
> support learners' independence and versatility as readers. When teachers and
>
> students share control, students learn to make crucial literacy decisions
>
> themselves" (p. 667). *I couldn't help but to think that Katy's vocabulary card*
>
> *activity was similar to what I had suggested in a word wall but the most*
>
> *important thing that happened here is that it was* **her idea***.*
>
> *Isn't this exactly what Turner and Paris are talking about—being a literate*
>
> *person who can identify when we need support and creating that support for*
>
> *ourselves as needed?*

In subsequent sessions, whenever they were reading, Katy made cards and kept them on a

metal ring for easy access. She consulted these cards regularly, often saying something like,

"I think I made that card already." She also continued creating cards for new unknown

words, often saying something like "I think I'll make a card for that one." On a few

occasions, she refined the definition she had originally written on a card based on the

connotation of the word in a new textual context.

We are reminded here of Massumi's (2015) construct of the *biogram*—a

"cartography of potential…[that shows a life] modulating its own course under conditions

of complexity" (p. 117). Importantly, the *biogram* is a social construct that involves

"moving inventively together in concerted action—crucially, without erasing the attuned

differences" (p. 117). We consider this moment in Katy and Melanie's work to be a

biogram where we can see their attunement trajectory (word wall→vocab convo→word

cards) as powerful meaning-making activity.

It was also during this session that Katy began to write the narration for the

movie—the first writing of connected text she had done in front of Melanie; previously her

writing had only consisted of generating individual words or bulleted definitions. Like the

vocabulary cards, Katy chose, on her own, to begin the narration because she worried she

would not be able to remember what she was learning about cheetahs as she continued to

conduct research on each category she had identified as important. Yet she was

overwhelmed with the amount of information she was encountering about each category,

and she commented that she did not want to write it all down. Melanie drew upon her

previous knowledge of supporting students' ability to summarize texts. She explained to

Katy that readers cannot possibly hold all the information they read in their brain so they

make it smaller by focusing on the key details. She provided explicit instruction on

summarizing techniques using Katy's narration script as a vehicle. In her reflective journal,

Melanie noted the sophisticated literacy work this entailed, as well as Katy's perseverance

in the activity:

> *Katy read and re-read texts to identify the key details, noted them with bullets on a*
>
> *card, and then worked to connect the details with compelling narration her*
>
> *viewers would want to hear. I was awestruck in how hard she worked! At one*
>
> *point she turned to me and said, "Man, this is really hard! But, I like it" and kept*
>
> *working.*

This series of interactions also marked a watershed in Melanie's growth as a teacher, especially with respect to affective dimensions of Katy's learning and the importance of affective attunement in teaching:

> *I couldn't help but think back to the girl who counted down the minutes until we were done and who avoided any kind of extended writing or reading and be amazed at the difference! Seriously, I can't imagine ever going back to the way I've engaged in literacy intervention! In fact, as I look back on my years of that kind of work I feel bad for the students that I subjected to the decontextualized learning activities. I guess this is one of those times that Harste et al. (1984) talk about in "Language Stories and Literacy Lessons"—I'm outgrowing myself! Thank goodness!*

At about this same time, Melanie was taking a class in which she read three chapters from the *Handbook of Reading Research, Volume IV* (Freebody & Freiberg, 2011; Kucan & Palincsar, 2011; Wilkinson & Son, 2011). Together the chapters illuminated how children have been positioned within the schools as "struggling readers" using cognitive profiling in the areas of decoding, vocabulary, and comprehension resulting in the narrowing of the curriculum in which they participate (Kucan & Palincsar, 2011). The content of these readings broke Melanie's heart, which is indexed in the following response:

> *I thought of all the children over the past 10 years that* [sic] *have been labeled as "at-risk" or "struggling," or quite literally as in need of "corrective reading" as designated so in bold letters on the white board with their name listed underneath. I thought of what those labels meant for what would be done to them at school (positioning) and how this "doing" has taught these children the*

> *"right" and "wrong" ways to behave, not just in social and physical ways, but in*
>
> *literate ways. I thought of the children who were walked each day to*
>
> *"intervention" in which they were given a text to read, given tasks to perform on*
>
> *those texts, given letters to manipulate for given words, and given a topic to write*
>
> *about—interventions I have "performed".... It makes me cry to think of my part in*
>
> *this fiasco!*

Melanie's growth as a teacher went far beyond this individual learning/teaching experience. It transformed her identity as a teacher. She no longer viewed literacy learning as accumulating content and strategies; and she no longer desired to teach in a fashion that construed literacy learning as a "pill to swallow."

Attunement Moment #5: Honing Spelling Skills

During the 6th session, Katy talked at length with Melanie about her nervousness regarding spelling words wrong. "At school, I have to erase a lot, that's why I don't like to write," she mentioned after looking up from one of her texts. Melanie explained she would be happy to help her with her spelling if she felt it was important. She also explained that since she would be saying the narration for her movie, she would be the only one to see her spelling so she could choose whether she wanted to edit her writing for spelling or not.

After this discussion, Katy asked for support for spelling occasionally, and Melanie engaged in some traditional spelling instructional activities, such as word-sorting and morphological analysis. However, their spelling work really picked up when Katy had difficulty reading her own writing for her narration. Melanie suggested she type what she had written. When Katy inquired about the red lines under some of her words (spell-check within Microsoft Word program), Melanie showed her how she could use the mouse to

right-click to see if the word she wrote was spelled correctly. When Katy first started using

spell-check, she automatically chose the first word on the list. Melanie was not surprised

because she had noted in her embedded assessments that Katy often relied heavily on her

visual cuing system when decoding words but only applied the strategy to the beginning of

the word. After Katy had engaged in this not very effective strategy three times, Melanie

showed her how to read through the ends of words to locate the correct one. Quite often

she recognized the conventional spelling and differentiated it from a corresponding

homophone, such as "raze" and "raise." The following excerpt from Melanie's fieldnotes

several sessions later indicates how this strategy became a part of Katy's word decoding

repertoire:

Katy read the following paragraph from Nat Geo's *page on cheetahs:*

"The cheetah is the world's fastest land mammal. With acceleration that would leave

most automobiles in the dust, a cheetah can go from 0 to 60 miles (96 kilometers)

an hour in only three seconds. These big cats are quite nimble at high speed and

can make quick and sudden turns in pursuit of prey."

http://animals.nationalgeographic.com/animals/mammals/cheetah/

She stopped to decode the following words:

- *Mammal*

- *Acceleration*

- *Automobiles*

- *Kilometers*

- *Nimble*

- *Pursuit*

> *Usually, she reads the first few letters and guesses at the rest (usually*
>
> *incorrectly). Today, she pointed as she decoded each word and silently read*
>
> *through the entire word before reading it aloud. The only words I helped her with*
>
> *were "kilometers," "nimble" (also a "Vocab Convo word), and "pursuit."*

It was also after this session that Melanie reflected upon their attunement as a collaborative

activity using the metaphor of a dance:

> *I'm also noticing how much more comfortable she is with me. It's like we are two*
>
> *people just helping each other instead of her viewing me as teacher and her*
>
> *student. It makes me think of Judy's [e.g., Lysaker, 2000; Lysaker et al., 2006]*
>
> *work on the relational aspects of learning/teaching. Key to this, I think, is that*
>
> *I've purposefully put myself in the facilitator's role—a sort of "what do you want*
>
> *to do and how can I help you?" role. Now, we've grown comfortable with these*
>
> *roles and Katy has no problem letting me know when something is bothering her*
>
> *that she wants to fix and I also am comfortable pointing some things out to her*
>
> *(although I'm careful to choose how much and when). It's really like a dance we*
>
> *do in which sometimes I lead and other times she leads. We're also making up the*
>
> *dance. It isn't a steady waltz but more like a dual interpretive dance! I've never*
>
> *really seen two people dance like that, improvisational together. But it's what I*
>
> *think of when I think of how we've grown together in our work together. I'm sure*
>
> *that if two dancers were to take this style on, the amount of trust they have in each*
>
> *other would be important. [Katy] and I have grown to trust one another.*

This was also a moment that propelled Melanie's desire to explore the professional

literature on reading students' needs, pacing, and dialogic pedagogy:

> *This actually makes me wonder about this on my end. I have needed Katy's trust as I venture on this new path. I've never taught like this and at the beginning it was like I was saying "trust me, Katy.. It will all work out," but I wasn't sure it would. Now I truly believe it! There isn't anything that Katy needs literacy-wise that isn't coming to the forefront of our activity. However, I have to be careful in how and when I respond as to not overwhelm her. How do I make those choices? I'm not sure. One thing I know I do is ask myself, "what would help her the most right now?" and then I look down the road to see how much work it will take and decide how much modeling and shared activity she may need to feel comfortable with it. Sometimes, I think she's ready and other times I offer more scaffolding. I'm not really sure how this all happens. I wonder if there is research that has looked into this aspect of teaching.*

Throughout this moment of attunement, the importance of its affective dimensions of learning-teaching interactions became abundantly clear. Katy and Melanie were *settling in* with one another. Often, we associate "settling in" with moments of slowing down, rest, and stillness. Yet in this experience, their *settling in* led to excitement and harder/more work on their project. This is not unlike how adults and babies become "partners in action" as described by Kaye (1982, p. 230)—making themselves an active part of their achievements. As we mentioned earlier, attunement usually involves emotional sharing and feelings of excitement, enjoyment, and satisfaction, which perfectly describes Katy and Melanie's attunement at this time in the project.

Attunement Moment #6: Honing Fluency Skills

As the project moved forward from researching multiple aspects of cheetahs toward actually producing an *iMovie*, Melanie recognized a great opportunity to support Katy's oral reading fluency. They were just about to record the narration track for the *iMovie*. Melanie had noted in her embedded assessments during their various *iPad* reading experiences that Katy needed support in her oral reading with fluency—expression/volume, phrasing/intonation, smoothness, and pace (Rasinski & Padak, 2005). Melanie had also noted that Katy was dysfluent even when reading simpler texts, and she had entered the following "wondering" in her reflective journal: "*It was as if she had built a disfluent style of reading.*" Melanie had read that one of the most effective strategies to support students' fluency is re-reading (e.g., Young & Rasinksi, 2013). So, Melanie thought that having Katy tape record her narration might offer an opportunity to understand Katy's dysfluency and perhaps begin to help her "undo" it. She considered the traditional fluency practice she had seen and used in which students are given a short passage to read and then asked to re-read it repeatedly to become more accurate and faster. Such activities are generally not motivating to students. In fact, Melanie remembered the sunken shoulders and sighing that often accompanied such activities she had seen when she was a classroom teacher. In this project, though, she thought things might be different because Katy had a compelling purpose to read and re-read—to produce a flawless, powerful narration for the *iMovie*. Having this purpose appeared to make a difference in Katy's motivation as recorded in Melanie's fieldnotes:

> *After she was finished typing, she printed it out and then practiced to re-record it.*
> *As she practiced it the first time, she said "snores" instead of "snoring" so she*
> *wanted to try it again. The second one was pretty fast so I encouraged her to*

listen to it again to see if it was just the speed she wanted it. After listening she

commented, "That seemed a little fast," so she recorded it one more time and

was happy with it.

By the 8th session, Katy had become quite adept at recording the narration for her

movie. She recorded, listened, and re-recorded multiple times to get it to sound just how

she wanted it to sound—constantly improving her fluency. However, when reading her

narration in this session, Katy did not like how it sounded, but could not determine what

needed to be fixed. Melanie knew what the problem was; Katy read her script very

rapidly, ignoring pretty much all punctuation. Because Melanie sensed Katy was not in

an affective space to hear criticism or to deal with this literacy need at this time, she

suggested a change in their activity from writing/recording to more research. This

suggestion, however, did not appear to change Katy's overall affective stance toward the

project, which Melanie recorded in her fieldnotes:

We had about 15 more minutes so we started gathering information on the next

section, "Living." As we got out the images she had chosen for that category, I

asked her, "When you look at these pictures, what questions do you have about

how they live?" She responded, "I don't know." So I prompted her with "What is

different about "these cheetahs" (ones that were in a fenced enclosure)? She

said, "They're living in a cage." I prompted, "So, what does that make you

wonder?" She said she didn't know. It was evident that she was highly distracted

because she tried to sing a song she wrote for me and asked several times how

much time we had left. I prompted one more time, "Why do you think they live in

a cage?" She told me she didn't know so I introduced the word "captivity" to her

and we typed into Google, "How many cheetahs live in captivity?" The first click

was a Wiki answer that said, "a lot." I asked her, "Well, does that help us?" She

responded, "No." The second click took us to a woman who has dedicated her

life to preserving cheetahs. I began to read some of the text on the screen, but I

could tell that Katy was pretty much finished for the day. I bookmarked the site

and said we would start there next week.

In this interaction, we see Melanie pushing Katy during a moment of dissonance. Although

she had grown in her ability to read Katy and respond in a way that propelled their work in

positive directions, in this moment she seemed to misread Katy. It took Katy's multiple

attempts at passively refusing to engage in the learning experience for Melanie to correctly

read her and put an end to their work on the project for that day.

Pondering this moment of dissonance, Melanie wondered why she did not

recognize Katy's need to stop. Could it have been her old teaching dispositions creeping

back in, making her think that this project was taking too long? Here she felt a

connection to Stevens et al.'s (2001) discussion on the seemingly impossible chasm

between attunement teaching and the normative system of school:

The individual learning process of pupils cannot be predicted, nor can it be run

according to plan. Education cannot be standardized, in the same way as standard

educational results cannot be prescribed. Something that can be done, and which is

the professional obligation of a teacher, is to create the circumstances that aim to do

full justice to the development potential of pupils. (p. 29)

Yet Stevens et al. (2001) do not see these as mutually exclusive perspectives. Curriculum

standards can be in place, and with a shift of our focus on the students instead of the

curriculum, we just might better see new paths toward achieving the standards.

The following day, Melanie shared with a colleague in educational technology what

had taken place when working on fluency with Katy. He suggested creating a visual display

of her fluency using the audio editing program, *Audacity*. Melanie got really excited about

this suggestion for several reasons but especially because she knew Katy leaned toward

using visuals to process information. In the next session, she showed Katy how to

download her recording into *Audacity* and explained to her how to read her vocal frequency

read-outs. After listening and watching her recording the first time through, she

immediately pointed to the screen and said, "Hey! I didn't pause at all! There's lines all

across!" referring to the absence of any spaces in the visual read-out, which denotes no

pausing while speaking. Melanie suggested they look back at Katy's text and decide where

her voice should pause. Katy circled periods and commas in the written text and then

practiced reading it several times, trying out several different phrasing and intonation. She

even asked Melanie to read it aloud to her before she settled on how she wanted it recorded.

From that point on, Katy insisted they put the recordings of her readings in *Audacity* so she

could see her speech. She also began to pay much closer attention to the proper use of

punctuation, which took some explicit teaching on Melanie's part.

By this point in the tutoring, Melanie's view of the importance of collegial

discussion as a professional activity to support more effective responsive teaching became

more solidified as seen here in a reflective journal entry:

When Katy immediately noticed her fluency error on the screen, I almost jumped

out of my seat! What if I hadn't had mentioned what we were doing to Blake

(pseudonym)? Just that short conversation with him made a huge impact on my

teaching and Katy's learning! How often is this studied? It reminded me of the

"hallway conversations" we used to have when I was teaching that often resulted

in trying something new out in my classroom.

We see here that Melanie was not only growing in her teaching practice but also in her

understanding that "it takes a village" to raise a teacher/scholar.

Attunement Moment #7: Pride in Their Art

When Katy came to the sessions following the one in which her motivation

appeared to plummet, Melanie noted her excitement was back. She finished recording her

entire narration and inserted it into *iMovie* with the images she had collected. At this

point, Katy appeared to become frustrated by the tedium of the editing process. Melanie

provided a bit of direct instruction on how to get the timing of the images and her

narrations synchronized, and Katy picked up on this process very quickly but her stamina

waned. Melanie decided to take on more of the editing role (yet, she did question this in

her head) and they finished editing her movie and then burned two copies onto blank

DVDs—one for her family and one to take to school. She immediately wanted to show

her movie to her mother who was working in the same building. After descending three

flights of stairs, Katy skipped toward her mother's office, DVDs in hand. Noticing that

George was in his office as well, Melanie invited him to be an audience with her mother.

The four of us stood there huddled around George's computer as we watched Katy's

movie. Katy clung to her mother's arm with a huge smile on her face as her movie

played. We both (Melanie and George) had tears in our eyes upon the completion of her

movie. We knew what an accomplishment this was—both for Katy and Melanie. Katy's

mother hugged her tightly; she told her how great the movie was; and she told her she

was sure her grandmother would be excited to see it and learn about cheetahs too. George

also congratulated Katy on her hard work and talked about aspects of the movie he really

liked.

     After this premier showing, Katy ejected the DVD from the computer, and she and

Melanie went back upstairs to the tutoring room to celebrate. While they munched on some

snacks together, they excitedly talked about the movie and they re-watched it several times.

After one of the viewings Katy turned to Melanie and asked, "Can I write another one on

ferrets?" Melanie assured her that she could make a movie about ferrets if she wanted to.

However, she was already thinking back about ideas Katy had recently shared about other

possible future projects, which she wrote about in her reflective journal:

> *I'm not sure where we will go from here! Katy did ask if she could make another*
>
> *movie about ferrets, so we can see if that is what she decides. I've also noticed*
>
> *she's been talking a lot about poetry she has been reading and writing at school,*
>
> *so that may be something cool to explore.*

This "noticing" had become regular practice for Melanie and indeed, Katy chose poetry over

ferrets for her next project. Their work continued to be dialogic with Melanie offering project

ideas sometimes and Katy suggesting them at other times. Their continued work together

involved things like writing/illustrating poetry using paper and digital illustrations,

comprehending country music lyrics/videos (you haven't lived until you work through

vocabulary in a Luke Bryan song with an 11-year-old), and composing a digital e-cookbook—

the constants in their work? Togetherness, excitement, hard work, and technology.

Concluding Thoughts

We conclude by pondering what was actually produced by this collaborative

experience that Katy and Melanie could not have done alone. The obvious product from

their work together was the cheetah *iMovie*. Through many collaborative micro-

productions, it became a *language art,* from the words that were composed, to the

inflections in the narrations, and through the images that tied it altogether. Like Kaye

(1982), we view what was produced as micro-productions of apprenticeship that were

propelled through "turn-taking" moving from insecurities to security (Massumi, 2015).

From a new place of security with Melanie as her support, Katy ventured into the unknown

and learned new literacies to help her accomplish her meaning- making goals, such as

comprehending/composing informational texts, spelling, grammar, oral reading fluency,

and vocabulary. More importantly, she developed as a new/different literate person.

Following this project, Katy never hid her literacies. She met new challenges with tenacity

and excitement.

Yet just as Melanie was there for Katy, Katy was there for Melanie. In

Melanie's previous work with students who struggled with aspects of literacy, she

was always able to connect them to new literacies using more traditional tools and

practices. Yet when viewed through her experience with Katy, she now sees how

many times students were merely compliant, mostly fostered through the

relationships they built. Missing in these past experiences were the students' passions

and intensities. This is what Katy taught her. Katy's refusal to comply with Melanie's

traditional forms of teaching/learning taught Melanie to search deeper into the heart

of the matter, for Katy's affective intensities (Deleuze & Guattari, 1986; Massumi,

2015). However, it is her development as a teacher that excites her the most. She is a

different teacher because of Katy and their work/play together. She is a teacher who

foregrounds the affective dimensions of collaborations *between* and *with* all of her

students. She works hard to read new students the way she learned to read Katy. And

like the tutors in Lysaker et al.'s (2006) study, she finds much more happiness, hope,

and reciprocity in her work/play.

We often play Katy's *iMovie* for the pre-service teachers we teach to inspire their

future practice. And when we do, we are still moved to tears. Our hearts are moved by this

experience. This quite possibly is the most powerful product that emerged. Katy and

Melanie's *aesthetic play* (Latta, 2004) became the norm, steeped in their collaborative

work. It was art-in-motion saturated with affect that became their mode of being. Perhaps

even more important is the fact that aesthetics was frequently the engine that drove Katy

and Melanie from dissonance to attunement. They wanted something that looked pleasing,

that felt pleasing, that was pleasing. When a dissonant chord was struck, everything in their

beings wanted it to be resolved—to find resonance again. Finding resonance propelled their

learning and development forward. Like the caregivers and babies from Kaye's (1982)

work, Katy and Melanie became partners-in-action who inspired hope in one another. The

various dimensions of attunement we have discussed throughout had to be in place to create

the trust, synergy, and reciprocity that made the entire endeavor so successful for both of

them.

We have also pondered how, even in moments of attunement between Katy and Melanie, external socialization forces (e.g., public school norms, policies, and practices) may have created dissonance for them. At the beginning of this project, Melanie was thrilled to see Katy take up literacy in new ways. However, the methods Melanie was using to support her were not aligned with her professional socialization as a teacher or how schools typically work. As she stated in her reflections, it "felt weird" to teach so emergently. Thankfully, George had the patience and time to support her as she "surpassed herself" (Bereiter & Scadamalia, 1993) and became a different kind of teacher. Similarly, Katy's early resistance to Melanie's support may have also been tied to her socialization as a student. Yet like George, Melanie had the patience and time to support Katy as she, too, "surpassed herself" and became a different kind of learner. Socialization takes time (Stevens et al., 2001). Re-socialization takes even more time. For both Katy and Melanie, the elements of patience and time were crucial for their learning and development. Like the teachers in Stevens et al.'s study, they needed time and a safe space to make mistakes, a space where they were not too quickly judged, a space for reflection and renewal.

In this space, their development was not linear. As they learned to dance together, at times their steps fell out of sync with one another (moments of dissonance). Yet even within the moments of attunement, their dance was characterized by unexpected side-stepping (e.g., Katy's suggestion of making cards for vocabulary learning) and even large sweeps across the floor (e.g., Melanie's reflexive response to positioning "struggling readers"). We are reminded here of Vygotsky's (1978) *zone of proximal development* (ZPD)*, especially Engeström's (2009) (re)rendering of the ZPD as a "terrain of activity to be dwelled in and explored" (p. 313). Both Melanie and Katy were enabled to do a bit more

than they could have done on their own by becoming each other's more *knowledgeable*

other and being allowed to dwell in and move about their activity terrain fairly freely.

What does this say about the role of apprenticeship in dialogic learning/teaching

experiences? Returning back to Kaye (1982), we consider the more natural consideration of

the teacher as the more knowledgeable other who apprentices the student toward skilled

literacies. Yet we believe our mapping of moments of attunement and dissonance offer an

expanded understanding of apprenticeship—one that is more bidirectional. In this case, we

not only see Melanie's apprenticing of Katy pulling her forward toward more effective

ways of making meaning in and of her world (being literate), but we also see that Katy

apprenticed Melanie, pulling her forward into being better at her craft of teaching. Katy

knew what she needed from Melanie and didn't settle for less. As suggested by Harste et al.

(1984), she became an informant into her literate world.

Implications

Literacy learning has typically been theorized and operationalized as several related

processes that can be taught and studied separately (e.g., comprehension, fluency,

vocabulary development), as largely cognitive in nature, and as something that happens

inside the heads of individuals. Our findings challenge these notions suggesting that affect

(and perhaps even distributed affect) is far more important than extant theory and research

suggest—making learning always more transpersonal or intersubjective. Literacy

instruction for students who struggle with aspects of reading and writing is becoming more

and more structured in efforts to target specific skills that students need. The reading and

writing students are doing in tutoring and small group instruction is usually targeted and

focused toward their needs, yet it is usually divorced from their affect intensities. The

tutoring we explored through responsive teaching within interest-based, purpose-driven

literacy activity mediated by digital technology tools has the potential of not only helping

students learn the literacy skills they need but the added bonus of doing so in ways they are

excited about through their own meaning-making goals. Simply put, it *has it all.*

Yet recognizing and responding to students' needs requires teachers to work on the

edge of their knowledge (Bereiter & Scardamalia, 1993). In any teaching/learning activity,

the teacher makes moment-by-moment instructional decisions that are complex and

dynamic (Avila, Zacher, Griffo, & Pearson., 2011; Clay, 2013). In her work with Katy,

Melanie became more aware of what she didn't know and turned toward extant theory and

research to expand her expertise. Few studies have articulated how contingent,

unpredictable, and emergent most teaching-learning interactions are. Nor have many studies

highlighted how important it is for teachers to interact (responsively and strategically) with

the academic literature during this process as ways to attune to their students. Since one of

the primary goals of educational research is to inform instructional practice (Lodico,

Spaulding, & Voegtle, 2010), exploring tutoring as affect-based, intersubjective, and

responsive, seems rife with possibilities for deepening our understanding of teaching-

learning interactions.

Finally, we agree with Lysaker (2000) in believing that being literate is a "personal

and social task learned through relationship" (p. 483). This relationally-oriented approach to

literacy learning/teaching also fits with the more recent calls for students to develop 21st

century skills, such as emotional intelligence, effective communication, critical

thinking/problem-solving, teamwork/collaboration in diverse contexts, effective use of ever-

changing technology, and project management (Trilling & Fadel, 2009). To foster such

skills, we must acknowledge, value, even celebrate social and affective dimensions of

learning. The emerging body of theory and research on the fundamental importance of

attunement in learning/teaching interactions seems to offer many insights useful for further

"humanizing" and "aestheticizing" teaching and the teaching profession.

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