

Temporalities In and Of Research: Cases From an Afterschool Documentary Filmmaking Program

Arundhati Velamur (co-chair), Daniela Della Volpe (co-chair), Noor Jones-Bey, Rishi (Shruti) Krishnamoorthy,
Jasmine Y. Ma, Hui-Ling S. Malone, and Sarah C. Radke
aav268@nyu.edu, ddv234@nyu.edu, noorjonesbey@nyu.edu, sk5303@nyu.edu, j.ma@nyu.edu,
hlm328@nyu.edu, scr274@nyu.edu
New York University

Molly L. Kelton
molly.kelton@wsu.edu
Washington State University

Jessie Levandov
jessie.levandov@gmail.com
Mala Forever

Ananda Marin (discussant)
marin@gseis.ucla.edu
University of California, Los Angeles

Abstract: This symposium centers on time and temporality, which when viewed as cultural, carry a social and political dimension. In particular, we question colonial assumptions about time and propose new conceptions of temporality that allow us to expand what we see as learning, and how we see it unfold. What are the temporalities that emerge from and are imposed on communities engaged in learning? We take up a temporality lens that (1) unpacks elements of practice and identity that are obscured by placing all participants and communities in a shared framework of settler time, and (2) draws out the subjective temporalities of the event that are produced by participants in interaction. The three papers, from a study of an afterschool documentary filmmaking program, consider “slow” temporalities of learning in this setting as well as how “slowing down” research practices decolonize assumptions of settler time in marginalized spaces.

The Learning Sciences has a demonstrated history of situating learning, learners, and related phenomena within cultural contexts. Some scholarship within sociocultural research into learning takes a view of culture as productive of and as a product of practice, such that culture and learning are both non-static, always in-process, and inextricably related (Lave & Wenger, 1991; Rogoff, 2003). Culture is thus not an unmoving background against which learning unfolds; it is the very medium through and within which practice and learning occur, consisting of, among other things, articulated symbolic and material artifacts and the very practices it mediates (Cole, 1995). In accounting for culture, research into learning has included the role of the social and political construction of time, space, and time-space relations (e.g. Bang & Marin, 2015). Our interest in this symposium centers on time and temporality, which when viewed as cultural, carry a social and political dimension. In particular, we attempt to question colonial assumptions about time and propose new conceptions of temporality that allow us to expand what we see as learning and how we see it unfold.

In his work on “temporal sovereignty,” Rifkin (2017) begins by describing the construction of an absolute temporal framework as part of the settler colonial project. Within this construction, settler time—or simply time, for there is only one absolute time from this perspective—is divided into a primitive past, a civilized present, and a progressive future. In this telling, the native being is relegated to the past and is therefore cast as primitive. In comparison, the settler lives in the present and is part of a linear march towards the future. The native being is thus dispossessed not only of land but also of non-settler conceptions of time, resulting in a denial of their temporal sovereignty. From this temporal gaze, the native is always seen to be behind, ever lagging, never caught up to the present.

We argue, as Rifkin does, that in the United States of America, all beings are placed by in a “shared, unified now” (Rifkin, 2017, p.1) of white settler time, against which their practices and learning are seen to linearly unfold. All beings, thus, are cast by coloniality and its construction of time, denying the possibility of indigenous and non-settler temporalities. We use coloniality to refer not just to colonialism, but to “the logic,

culture, and structure of the modern world system (Mignolo 2000)” (Christen & Anderson, 2019, p. 90). Rejecting this notion of an objective time, Rifkin urges for a reclaiming of temporal sovereignty, asking that we think of time “as plural, less a temporality than temporalities” (Rifkin, 2017, p. 2).

What are the temporalities that emerge from and are imposed on communities engaged in learning? In this symposium we take up a temporality lens that contributes to (1) unpacking elements of practice and identity that are obscured by placing all participants and communities in a shared framework of settler time, and (2) drawing out the subjective temporalities of the event that are produced by participants in interaction. We develop our framework from Christen and Anderson’s (2019) argument for what they call “slow archives,” a process through which colonial practices of archiving and the continuing violence they engender are opposed and disrupted, replaced by new modes of archiving that center the “embodied, intimate, kin-based, land-based affective practice of hearing, listening, sensing, remembering, making, and remaking” (p. 90). We focus our interest in Christen and Anderson’s conception of slowness:

Slowing down creates a necessary space for emphasizing how knowledge is produced, circulated, contextualized, and exchanged through a series of relationships. Slowing down is about focusing differently, listening carefully, and acting ethically. (p. 90)

We argue for slowing down in two ways: first as a methodological approach for researchers; and second, as a perspective on what participants do in order to produce new temporalities as interactions unfold. For the learning scientist, this framing of slowing down provides a temporal lens on the field that draws attention to and centers relationality. By seeing the tangled network of relationships, the non-linear nature of learning is brought into focus, which in turn upends the notion of a predictable, uniform, and progressive learning trajectory. In other words, if development is thought of as a vector with both directionality and temporality, the temporal dimension of this trajectory, settler time, frames a background “against which to measure indigenous and other subaltern individuals and groups in terms of the degree to which they are out of sync, behind in development, anachronistic, and resistant to progress” (Anderson, 2011, p. 100). As one way of resisting this temporal dis-placing of marginalized groups, slowing down offers a conceptualization of learning as non-linear, allowing for sudden and unexpected turns and the availability of diverse resources. Consistent with Christen and Anderson, we do not conceive of slowness in a way that reifies the fast-slow dichotomy of linear settler-time. We instead use slowness to interrogate the unquestioned assumption of a singular linear settler time and to include the potentiality of plural temporalities (Rifkin, 2017).

If learning scientists slow down to disrupt a linear temporal narrative, we may see how learners slow down to generate subjective nonlinear times through their interactions. They slow down to negotiate meaning-making within the practice; from a settler-colonial temporal gaze, this slowing down by the learner is seen as being “out of sync” (Anderson, 2011) with the presumed linear trajectory of the practice. Disrupting this gaze, our lens views learners’ acts of slowing down as ways of participating in, making meaning within, and transforming their learning. By slowing down learners produce their own temporalities and rhythms with which they are very much *in* sync. The learner’s slowing down is agentic and intentional, engaging in actions that are productive of a temporality.

Researcher positionality

Our framework in this symposium draws extensively on indigenous scholarship and epistemologies. We believe it is important to position ourselves with respect to the scholarship we draw on. We are: Black, Canadian, Chinese, Italian, Native American, non-US citizens, persons of color, queer, trans, South Asian, straight, US citizens, and White. For those of us who do not identify as native or indigenous, developing research from indigenous and native epistemologies raises important questions. For each of us, in thinking about the role of theory in educational research in North America, our post-coloniality occupies a place of prominence. It situates us in what Walter Mignolo (2000) refers to as the space of “colonial difference [...], the space where coloniality of power is enacted” (p. xxvi) but also in which the power dynamics between settler and non-settler ways of knowing are negotiated. We acknowledge that our use of indigenous epistemologies serves as an enactment of the settler-colonial project. Simultaneous with this enactment, however, is our questioning of settler colonial epistemologies, by confronting settler modes of thought with non-settler—and in this paper, native—epistemologies, a confrontation made possible by our location in the space of colonial difference.

Research setting, data, methods

All the papers in the symposium draw from data collected in Digital Studio (DS), an interest-driven, elective afterschool program for high school students in a large urban city in the Northeast. During the 14-week

semester, students negotiated a social issue, tied to one or more personal stories of group members, around which to research and produce a documentary film. DS was committed to supporting underserved youth via learning in the areas of documentary film production, critical literacy, and civic engagement. Two different groups met concurrently, led by adult facilitators Jessie and Hank (all names are pseudonyms, except Jessie, a co-author on the first paper). Each group of 12-16 students met four days each week for three hours each afternoon.

Data were collected by members of the research team over three semesters. One or two researchers observed and wrote field notes at least twice a week for two semesters in Hank's group, and for three semesters in Jessie's group. Video and audio records were collected, as well as instructional and student work artifacts. Interviews were conducted with students, Jessie, and Hank. Jessie joined the research team during the third semester, working with us on research design, data analysis, and writing. This collaboration moves the interpretive conceptual project from one of surveillance to one that critically centers relationships and upends more traditional power dynamics that privilege the analyst's gaze and categories over those of participants (Erickson, 1996).

Analysis occurred iteratively at two interrelated levels, the ethnographic (Spradley, 1980) and microethnographic (Streeck & Mehus, 2005). Episodes were identified as "hot spots" (Jordan & Henderson, 1995) for each paper, described below in each abstract. Analyses of the episodes iterated between microanalytic methods of interaction analysis (Jordan & Henderson, 1995), and methods borrowed from the construction of grounded theory (Charmaz, 2006). Ethnographic analysis of the full data corpus through thematic memo writing (Schatzman & Strauss, 1973) supported microanalysis of episodes, focusing on how present activity was constructed as a part of a broader ecology of youth activity and experiences. Any additional methods of analysis will be described in the paper abstracts below.

Organization of the symposium

The co-chairs will present the symposium theme, following which paper authors will present their studies. Paper 1 explores the generative possibilities for learning when community is centered and central to pedagogy and relationship building. Paper 2 focuses on the ways youth mediate multiple temporalities and recruit alternate space-times as a resource for statistical meaning-making as a social practice. Finally, Paper 3 attends to how embodiment and relational identities are constructed, performed and/or de/legitimized with and around the space. Together, the papers in this symposium consider how temporalities of research and learning may be multiply imagined through analysis of instructional design, within disciplinary learning, and in relation to learner identity and agency. The discussant, Ananda Marin, whose scholarship includes indigenous conceptualizations of time and space, will facilitate a discussion within the theme across the studies presented.

Temporalities of community centric practices

Hui-Ling S. Malone, Jasmine Y. Ma, and Jessie Levandov

This paper examines how DS helped students build critical literacy skills through centering community. Scholars have addressed oppressive structures in schooling through progressive educational theories to support vulnerable youth, and have highlighted the importance of community through viewing the environments that students reside in as assets to support learning (e.g., González et al, 2005; Yosso, 2005). Left uninterrogated is how centering community can build on these asset-based theories to not just transform learning, but to sustain communities. This paper reimagines education as a collective concept, examining how centering community at DS disrupted the assumptions and demands of linear time and progress in learning and development (Shajahan, 2015). In answering our research questions, *how was community centered at DS, and how did this shape learning?* we investigate how students worked collaboratively to make a documentary on unintended teenage pregnancy.

The framework used for this study, Community Centric Pedagogy (CCP), builds on two pedagogical frameworks that counter oppressive teaching and learning practices. Culturally sustaining pedagogies (CSP) serve to create educational spaces that uplift all students to enhance learning, where instruction draws on student knowledge and their cultural repertoires (Ladson Billings, 1994; Paris, 2012). Second, Youth Participatory Action Research (YPAR) is a student-centered approach to learning which serves to address injustices for youth and their communities (Cammarota & Fine, 2008). However, this literature does not directly address how learning from community, as opposed to the individual, might advance student learning and educational equity. Therefore, CCP takes on this epistemology of community as the locus that centers students and their communities, creates reciprocal partnerships between classroom and surrounding community that promote

student engagement with learning, and is an impetus for transformative school-community relationships. CCP reframes democracy not as majority, but as a collective that serves the whole.

Episodes identified as “hot spots” included displays of community engagement (within the classroom and with local community) as well as breakdowns in how youth oriented toward the classroom community. Microanalysis focused on interrelations between participants’ orientation toward DS and surrounding community, youths’ repertoires of practice (Gutiérrez & Rogoff, 2003) and various identities leveraged as community-building resources, and shifts in participation (Lave & Wenger, 1991) in DS activity.

We have found that community was centered, in part, through the design of the learning space. Jessie, the adult facilitator, prioritized developing caring relationships with and among the youth, and building community within the DS group. Students felt comfortable being themselves as contrasted to their rigid mainstream schooling environment and formed genuine relationships with each other. Additionally, three of the students were central to the documentary, and their personal experiences with unintended teenage pregnancy lent complexity to the story arc of the film. All DS participants became invested in these stories and their implications for the dominant narrative of teenage parenthood. Furthermore, activity at DS extended out into students’ communities outside of DS. Research for the documentary included interviews of DS members and their families. DS members also conducted street interviews to survey the community about their perspectives. Through centering the local DS and surrounding communities in these ways, students developed knowledge from each other and the greater community. In their screening and advocacy work once the film was completed, they became empowered storytellers and leaders in the greater community. These interrelated aspects shaped the academic learning process toward making the documentary while sustaining youth and their communities.

The DS space presented a form of learning grounded in community. DS honored the stories of students who were pushed into the margins in traditional educational environments and instead centered their knowledge, stories, and communities to create transformative learning and relationships between student and community. By centering the youth and their communities in these ways, learning at DS did not adhere to the traditional march through linear time toward learning goals listed in the program materials or even the completed documentary. Instead, learning activity was slowed down (Christen & Anderson, 2019), linked to bodily and relational experiences and needs, collective values and urgencies. Through a CCP perspective, we see how DS shaped a space that provided youth agency, allowing them to lead themselves in their own learning, sustaining not just the student, but also communities toward social justice and equity.

“I’m not talking about here”: Emergent temporalities as resources for statistical meaning making

Sarah C. Radke, Rishi (Shruti) Krishnamoorthy, and Molly L. Kelton

In classrooms, statistics are often presented as static ‘Truths,’ representative of “universal” (i.e. dominant or normative) perspectives that do not require investigation. For example, the statistics strand in the Common Core Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) stresses the importance of the quality of research from which data is generated, but stops before situating the statistical production in the complexities of the phenomena of interest, leaving little room for multiple (non-dominant) arguments (e.g., Garfield & Ben-Zvi, 2007; Tishkovskaya & Lancaster, 2012). Privileging only one voice in teaching and learning spaces reproduces educational inequity by obscuring the complex, lived realities of marginalized people. In this paper we investigate the many ways youth mediate multiple temporalities and recruit alternate space-times as a resource for statistical meaning-making as a social practice. We explore how youth navigate tensions in contrasting knowledges towards making meaning of the relations between their lived experiences and social phenomena.

Our research investigates the ways people coordinate local/personal knowledge with (possibly contrasting) other, disparate knowledge (e.g., personal, generalized, distant in place or time). Analytically, attending to the tensions that arise in these negotiations necessitates a decolonial orientation towards temporality to follow threads of knowledge-building in multiple parallel space-times. We argue that recognizing the work youth do to hold and leverage these tensions from a decolonial perspective is consequential for learning as it creates space for sense-making and prioritizes multiple experiences, potentially rupturing inequitable dominant narratives. This approach decenters settler colonial time both in the data analysis methodology, and in how we understand youths meaning-making around statistics.

In an interaction between one youth producer (Xane), the DS facilitator, and a researcher, tensions emerged around Xane’s interpretation of anti-gender-neutral bathroom laws in the United States.

We ask: How did Xane negotiate meaning-making in his local social world, to develop a broader

sociocultural understanding of an issue? And, in what ways did engaging in alternative/overlapping time-spaces support bridging Xane's statistical meaning making?

Our analysis illustrated how recognizing a decolonial orientation towards temporality highlighted a shift in Xane's positionality from oppositional to one that was open to a multi-voiced perspective. We argue that centering a decolonial perspective and reconceptualizing statistical reasoning as a social practice creates space to leverage tensions and reconcile different lived experiences during the practice of statistical sense-making.

We take up a sociocultural construction paradigm (Kuhn, 1996), and therefore, define knowledge—here, statistics—not as a collection of static facts about the world, but power-laden positionalities (Haraway, 1988) embedded in the sociocultural and historical narratives of the phenomena it describes. Learning, then, is both shifts in participation in a community of practice, and increasing engagement in the values, discourse, and cultural tools of that community (Greeno & MMAP, 1998; Lave & Wenger, 1991). This allows us to treat seriously the local context of activity and the resources, constraints, and goals relevant to participants. Temporal sovereignty through a decolonial framework is operationalized by following threads of knowledge as they extend beyond the present interaction (both physically and temporally) to include alternate (and possibly overlapping) space-times and imagined experiences during sense-making activity. Therefore, reframing statistical reasoning as social practice, we consider not only the present interactional space-time, but social practices that formed the statistics along with activity described by the statistic itself.

We analyzed episodes that contained statistical reasoning where the collection, use, or sense-making of/with statistical figures were driving activities. We used footing (Goffman, 1981), the alignment of speakers to themselves and to others present, to inform analysis of how participation in ongoing argumentation was negotiated by individuals and the group as a whole. We also traced production formats (Goffman, 1981) to investigate positioning as related to emergent tensions between 'truths'. Finally, we attended to f-formations, the ways in which people align themselves spatially during unfolding interaction (Kendon, 1990), to analyze co-operative spatial actions by which participants constructed and maintained their shared interactional space. Attendance to footing gave insight into how participation frameworks were dynamically unfolding, thus highlighting emergent tensions.

Tensions emerged when youth negotiated disjunctures between their local 'truths' and a statistical 'Truth'. We found that each participant in our analysis engaged in different approaches to statistical meaning-making (e.g. authoring statistics as 'Truth' vs authoring themselves as an imagined transgender person) to bridge local truth with a broader sociocultural understanding of transgender peoples' experience. Importantly, our analysis highlights how decolonizing temporality in knowledge co-construction located statistics as embedded within, and emergent from, sociocultural narratives, and promoted equity by illuminating and leveraging the multiple voices and tensions involved not only in phenomena the statistic described, but also how it was interpreted and utilized in argument-making.

Our analysis illustrates how recognizing that youth mediate multiple temporalities as they follow knowledge threads across space-time helps reveal emergent tensions when there is a disjuncture between local 'truths' and statistical 'Truth', thus disrupting dominant conceptions of mathematical results as objective facts. Decentering settler colonial conceptions of time through engagement with these tensions is crucial for illuminating how non-dominant youth may agentially recruit and leverage meaningful, disparate knowledges to participate in statistical reasoning, or be supported in doing so.

(Un)Bounded Jazz: Reimagining identity, access and participation in an afterschool classroom

Noor Jones-Bey and Jasmine Y. Ma

This study contributes to educational research by transforming dominant perceptions, expectations and behaviors in classroom settings to address the high levels of disproportionality in discipline experienced by marginalized populations in secondary schools. We provide a glimpse into an afterschool learning setting to study how embodiment and relational identities are constructed, performed and/or de/legitimized with and around the space. Urban Education research reveals that disproportionate rates of suspension, expulsion and over-identification in special education or lower-tracked placements lead to a lack of educational access and impede social mobility for vulnerable populations over a lifetime (Garbarino, 1999; Losen, 2014). Students who deviate from the norms set within a school community are likely to be perceived as "defiant" or "disruptive" and are more likely to be sanctioned by disciplinary action (Kirkland, 2013; Milner, 2015). We utilize the afterschool documentary space to investigate youth participation and activity outside of the "banking model" (Freire, 2000) of school, where sociality, activity and learning are normalized. Our research question addresses

how youth transform the afterschool learning space by drawing upon various identities, and participation that flow between and across place, space and time. Additionally, we follow how these emic layers of being culminate into new forms of collective participation. Taking seriously oral and embodied histories as a matter of reckoning with the past and the present, this paper aims to reorient the ways in which we observe, understand and/or question youth expression (Silva, 2018).

We draw upon several theories to understand youth participation as learning (Lave & Wenger, 1991). We conceptualize space as the creation of complex activities over time which includes stable forms like buildings, dialogue, and actions of people (Nespor, 2000). Space, furthermore, is socially produced through editing (Ma and Munter, 2014). Editing, framed within the African American jazz concept of improvisation as an act toward liberation (Moten, 2013), takes place when a young person responds to the official script (Gutiérrez, K., Rymes, B., & Larson, J., 1995), or curriculum, which opens up possibilities for new spaces of inquiry and participation. Lastly, we utilize Third Space and hybridity to understand how these particular discursive spaces, those with “alternative and competing discourse and positionings, transform conflict and difference into rich zones of collaboration and learning” (Gutiérrez, Baquedano-López, & Tejeda, 1999, p. 287). Through tracing student language, behavior and modes of participation that extend beyond the classroom space, we recognize student engagement as genealogical and thus expanding across time and space. These theories demonstrate connections between disruptions and various modes of youth productivity and participation. Hawaiian Indigenous theories provide an understanding of multiplicity and a need to communicate across human and non-human worlds (Goodyear, 2013; Silva, 2018). Further, combining indigenous Hawaiian and Black feminist theory offer us a particular way of looking at youth behavior expression as grounded in genealogical knowledge systems (Silva, 2018) that disrupt colonial disposessions.

We indexed all video data and transcribed all episodes in which the facilitator oriented toward student contributions as disruptive. Through multiple viewings, individually and in team data sessions, we followed processes embedded within moment to moment interactions, including shifting participation structures (Erickson, 2004), dynamic bodily orientations (Goodwin, 2000) and shifts in footing (Goffman, 1981).

The study found that youth edit space through dialogue and actions to create opportunities for participation that could be marked as disruption in a school setting and also an opening to reclaim agency. We focus on three types of improvisational edits 1) Necessity – student participation reveals a connection to larger systems of inequity i.e. sleepiness as related to long commutes ; 2) Curiosity – student inquiry that exposes a break in the normed setting and bound social practices and offer new possibilities unique to the space; 3) Emotional Depth – when students become hypervisible by sharing their emotion-laden thoughts, experiences and/or questions in the space. Student edits collided with the official scripts and offered expanded routes towards equitable participation. As they negotiated the bridge between home, school and other contexts, youth edits revealed their participatory strategizing and meaning making. This focus reveals major implications for education research on disproportionality as student improvisation 1) creates access points to learn from and with students negotiating official scripts 2) reveals equitable approaches to meet diverse needs and 3) delves into generationally perspectives and humanizing learning.

In conceptualizing spatial use and edits in DS, we came to see how student improvisation in learning spaces, often defined as disruption, provides an opportunity for researchers to learn from youth participation as a means to advance equity and access. While scholarship on hybrid learning spaces has focused on discovering and leveraging learners’ funds of knowledge (e.g., Moje et al., 2004), researchers have yet to map out the textures of youths’ counterscripts in organized learning spaces, and how these can be acknowledged and legitimized as contributions to and transformative of official scripts imposed by instructors and institutions. Through tracking emergent genealogical linkages found in youth embodiment, we detail one possibility for a typology for understanding the counterscripts that youth produce, an alternative for understanding youth participation that might typically be identified as disruptive, therefore offering a new potentiality for how to produce school transformation.

References

- Anderson, J. D. (2011). Space, Time and Unified Knowledge: Following the Path of Vine Deloria, Jr., in Dei, G. (Eds.). *Indigenous Philosophies and Critical Education*. Bern, Switzerland: Peter Lang US, 92–108.
- Bang, M., & Marin, A. (2015). Nature-culture constructs in science learning: Human/non-human agency and intentionality. *Journal of Research in Science Teaching*, 52(4), 530–544.
- Cammarota, J., & Fine, M. (Eds.). (2008). *Revolutionizing education: Youth participatory action research in motion*. New York, NY: Routledge.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. London, UK: Sage.

- Christen, K., & Anderson, J. (2019). Toward slow archives. *Archival Science* 19(2), 87-116
- Cole, M. (1995). Culture and Cognitive Development: From Cross-Cultural Research to Creating Systems of Cultural Mediation. *Culture & Psychology*, 1(1), 25–54.
- Enyedy, N., & Mukhopadhyay, S. (2007). They don't show nothing I didn't know: Emergent tensions between culturally relevant pedagogy and mathematics pedagogy. *Journal of the Learning Sciences*, 16, 139-174.
- Erickson, F. (1996). On the evolution of qualitative approaches in educational research: From Adam's task to Eve's. *Australian Educational Researcher*, 23, 1–15.
- Erickson, F. (2004). *Talk and social theory: Ecologies of speaking and listening in everyday life*. Cambridge, UK: Polity Press.
- Freire, P. (2000). *Pedagogy of the Oppressed, 30th Anniversary Edition*. (M. B. Ramos, Trans.) New York: Continuum.
- Garbarino, J. (1999). *Raising Children in a Socially Toxic Environment* (1st ed.). San Francisco: Jossey-Bass.
- Garfield, J., & Ben-Zvi, D. (2007). How students learn statistics revisited: A current review of research on teaching and learning statistics. *International Statistical Review*, 75, 372–396.
- Goffman, E. (1981). *Forms of talk*. Philadelphia, PA: University of Pennsylvania Press.
- González, N., Moll, L. C., & Amanti, C. (Eds.). (2005). *Funds of knowledge: Theorizing practices in households, communities, and classrooms*. Mahwah, NJ: Routledge.
- Goodwin, C. (2000). Action and embodiment within situated human interaction. *Journal of Pragmatics*, 3, 1489–1522.
- Goodyear-Ka'opua. (2013). *The seeds we planted: Portraits of a Native Hawaiian charter school*. Minneapolis, MN: University of Minnesota Press.
- Greeno, J. G., & The Middle School Mathematics Through Applications Project Group. (1998). The situativity of knowing, learning, and research. *American Psychologist*, 53, 5–26.
- Gutiérrez, K. D., Baquedano-López, P., & Tejeda, C. (1999). Rethinking diversity: Hybridity and hybrid language practices in the third space. *Mind, Culture, and Activity*, 6, 286–303.
- Gutiérrez, K. D., & Rogoff, B. (2003). Cultural ways of learning: Individual traits of repertoires of practice. *Educational Researcher*, 32, 19–25.
- Gutiérrez, K., Rymes, B., & Larson, J. (1995). Script, counterscript, and underlife in the classroom: James Brown versus Brown v. Board of Education. *Harvard Educational Review*, 65, 445–471.
- Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies*, 14, 575–599.
- Jordan, B., & Henderson, A. (1995). Interaction analysis: Foundations and practice. *Journal of the Learning Sciences*, 4, 39–103.
- Kendon, A. (1990). *Conducting interaction: Patterns of behavior in focused encounters*. Cambridge, UK: Cambridge University Press.
- Kirkland, David E (2013). *A search past silence: The literacy of young black men*. New York: Teachers College Press.
- Kuhn, T. S. (1996). *The structure of scientific revolutions*. Chicago, IL: University of Chicago Press.
- Ladson-Billings, G. (1994). *The dreamkeepers: Successful teachers of African American children* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
- Losen, D. J. (2014). *Closing the school discipline gap: Equitable remedies for excessive exclusion*. New York: Teachers College Press.
- Ma, J. Y., & Munter, C. (2014). The spatial production of learning opportunities in skateboard parks. *Mind, Culture, and Activity*, 21, 238–258.
- Mignolo, W. (2000). *Local histories/global designs: coloniality, subaltern knowledge and border thinking*. Princeton NJ: University Press.
- Milner, H. R., & Howard, T. C. (2015). *Rac(e)ing to class: Confronting poverty and race in schools and classrooms*. Cambridge, MA: Harvard Education Press.
- Moje, E. B., Ciechanowski, K. M., Kramer, K., Ellis, L., Carrillo, R., & Collazo, T. (2004). Working toward third space in content area literacy: An examination of everyday funds of knowledge and discourse. *Reading Research Quarterly*, 39, 38–70.
- Moten, F. (2003). *In the break: The aesthetics of the Black radical tradition*. Minneapolis, MN: University of Minnesota Press.

- National Governors Association Center for Best Practices, & Council of Chief State School Officers (2010). *Common Core State Standards for Mathematics*. Washington, D.C.: National Governors Association Center for Best Practices, Council of Chief State School Officers.
- Nespor, J. (2000). School field trips and the curriculum of public spaces. *Journal of Curriculum Studies*, 32, 25–43.
- Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher*, 41, 93–97.
- Rifkin, M. (2017). *Beyond settler time: Temporal sovereignty and indigenous self-determination*. Duke University Press.
- Rogoff, B. (2003). *The cultural nature of human development*. New York, NY: Oxford University Press.
- Schatzman, L., & Strauss, A. L. (1973). *Field research: Strategies for a natural sociology*. Englewood Cliffs, NJ: Prentice-Hall.
- Shahjahan, R. A. (2015). Being “lazy” and slowing down: Toward decolonizing time, our body, and pedagogy. *Educational Philosophy and Theory*, 47, 488–501.
- Silva, N. K. (2018) *The power of the steel-tipped pen: Reconstructing Native Hawaiian intellectual history*. Durham, NC: Duke Press.
- Spradley, J. P. (1980). *Participant observation*. New York, NY: Holt, Rinehart and Winston.
- Streeck, J., & Mehus, S. (2005). Microethnography: The study of practices. In K. L. Fitch & R. E. Sanders (Eds.), *Handbook of language and social interaction* (pp. 381–404). Mahwah, NJ: Lawrence Erlbaum Associates.
- Tishkovskaya, S., & Lancaster, G. A. (2012). Statistical education in the 21st century: A review of challenges, teaching innovations and strategies for reform. *Journal of Statistics Education*, 20(2).
- Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race, Ethnicity and Education*, 8, 69–91.