

Rap as Multiliteracy:
Understanding Hip Hop Literacies Across Spaces

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A dissertation submitted in partial fulfillment of
the requirements for the degree of
Doctor of Philosophy
(English)

at the
UNIVERSITY OF WISCONSIN–MADISON
2021

Date of final oral examination: April 27, 2021

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Abstract

This study updates our understanding of Hip Hop literacies as they operate outside of the academy in marginalized communities. Scholarship on Hip Hop Based Education has typically investigated Hip Hop within the classroom setting as a means to facilitate standard-based curriculum or forwarding the interest of schools. To this end, the research questions my study addresses are as follows: “How do rappers learn to rap?” and “What do such experiences reveal about the relationship between race and writing in our current moment of race conscious pedagogy?”

To answer this question, the dissertation takes the experiences of Black young adult rappers attending the Midwestern recording studio Haven studios as its focus and uses interviews, participant observation, multimodal ethnographies, and pedagogical documentation, to trace how participants navigate the marginalization they experience inside and outside of school while forwarding their interests in Hip Hop literacies.

I find that although their efforts are often impeded or threatened by social architecture that promotes social inequity, rappers learn to navigate these barriers by hybridizing, mixing, and otherwise changing their approaches to writing in particular environments or changing their environment to fit their desired mode of writing.

After reviewing scholarship on race, literacy, and Hip Hop, I present three findings: Chapter Two: “Hip Hop Composition and Hybridity” argues that rappers hybridized their academic and Hip Hop practices across digital and physical spaces because of and despite the limitations they experience in those places. In Chapter Three: “Mixing Tracks: Notes toward the analysis and design of vocal manipulation in Hip Hop music” argues that rappers see vocal manipulation as essential rhetorical consideration of sound design when developing their music.

In Chapter Four, I demonstrate how in the midst of a music industry that held hostage the literacy resources and support systems necessary to record raps, rappers develop “sharing economies” as a way to sustain their and their communities desired modes of literacy. I close by reviewing primary findings, describing limitations of the study, and explaining next steps for this project.

Acknowledgements

The words written in this dissertation would not be possible if not for my good friend Tiffany Ku for recommending I connect with Haven Studios as a field site for my research; the words written in this document would not be possible without the kindness and generosity of Haven studio's program directors, Andrew Davies and Derrick Thomas, who gave a rapper/graduate student an opportunity to step into their studio. Both often offered ideas on who I should interview, what events would be interesting to observe, and asked if I was okay and if I was getting the information I needed. You have taught me so much and sent so many blessings my way. I am eternally grateful and pray that this work can give a glimpse into the fantastic work you have done and continue to do for the Black community on the Southside of Chicago as musicians, mentors, artists, activists, big brothers, and role models! Thank you!

Most important, this project would not be possible without the entire Haven Family! Thank you C.A.M., Dai, Mp, Tae Mula, Tuesday, Ghee Ikeo, Retro Keyz, SPZY, Jinzo, Brax ACE, Disrupt, Sage P, Kechi, J Lamar, Cece, Ron, Zel, Tyg Dip, Isaiah, and Ridley Victoria (Rest in Power). I want to thank you all for allowing me into Haven in the first place. I thank you for sharing your knowledge with me, your time, and your generosity. I hope that my presence in some way blessed your lives as yours did mine. And I want to give a particular shout out to the central participants described in this dissertation: F.A.B.L.E., Prophet, Re@l, Messi, Shawn, and Shakey. You have all shaped the final form of this dissertation through your expertise and insight! It has been an honor chopping it up wit y'all, writing wit y'all, recording wit y'all, performing wit y'all-- all of it! I hope the readers and hearers of your words help Black communities and marginalized communities to see themselves in your work and inspire a new set of creators. I also hope that those who see these words can start to see themselves as

engineers of their own social world, who actively choose to work with, cultivate, and sustain the histories, practices, and lives of Black communities in particular and marginalized communities in general!

The project is the culmination of many encounters, relationships, and places over the course of my time here in Madison and beyond. Beginning with the faculty from Curriculum and Instruction and the Department of Teaching and Learning at the Ohio State University. From Curriculum and Instruction, thank you to Professor Maxine De Royston for taking a strong interest in my research even prior to our first interactions. As an outside reader of my work, and as a guiding hand through the job market search, thank you for your help through this process! From the Department of Teaching and Learning at the Ohio State University, Dr. Elaine Richardson, thank you for providing me the vocabulary, framework, and feedback necessary to discuss Hip Hop literacies in the first place. My dissertation could not exist without the lane you have paved for me and all other Hip Hop literacy scholars in the field. Thank you for being a mentor and intellectual beacon to my work!

However, the foundation for my work is in learning from and thinking with faculty from my own program, Composition and Rhetoric. For the last five years, Professor Kate Vieira's insight on everything, from setting up a strong research project to negotiating the sometimes-fraught business of finding a job, has grounded me in the field and she has served as a wonderful model for mentorship. She provided me with a community when I thought I had none. And she provided me with hope that there was a place for me in Composition and Rhetoric when I was ready to leave. Thank you, Kate! And if Kate was my hope, then I also want to give thanks to Morris Young for being my sponsor into the program. I don't know what you saw in me Morris, but I want to thank you for accepting me into this program and effectively changing the course of

my life. And finally, I would like to offer a strong thank you to Christa Olson for her guidance as a mentor and friend. Christa I cried in front of you on my first day of graduate school, and have done so repeatedly throughout the course of my study. You have been both an affective and intellectual model for my work as a scholar and instructor, so, thank you!

In the Writing Center, I encountered a wonderful mentor and advocate in Nancy Lihn-Karls. Nancy, thank you for your support in my work as an administrator in the Writing Center and for allowing me to shape the role of Multicultural and Social Justice Initiative Coordinator (MSJ) with complete freedom. You advocated for me in this position and advocated for my initiatives and cultivated a support I hope to emulate with my own future students and colleagues. Thank you! I also would like to send a special thank you to Jen Fendel for all of our pleasant conversations, and impromptu conversations. Everyone needs a Jen Fendel in their lives and I'm grateful for your presence during my time in the Writing Center.

And now to my main circle of friends in UW-Madison and beyond: Calley Morata , Virginia Schwarz, and Gabrielle Kelenyi, thank you for your love and support at UW-Madison. Calley, you were both a friend and mentor to me during my time at UW-Madison, you extended a helping hand when I needed it most and you probably didn't even know it. You continue to do, and for your kindness and generosity I am forever grateful. Gabbi, you were there for me during my time developing the MSJ role at the Writing Center, and all times, I was lost and in a panic. And yet, throughout those times, you remained a consistent presence, helping me out with workshops and thinking through ideas. You helped construct that role both directly and indirectly during that time, and I couldn't have done it without you. Gin, we had cookouts together, you kept a buck fifty with me, and put me on game with hella stuff on campus and the writing center,

and you coached me through my writing process. Thank you so much for your support and friendship!

A special shout out to Amanda Pratt and Jonathan Isaac. John, we had a conversation right before I was supposed to drop out of graduate school, and that conversation contributed to me staying. At the time, it let me know that I had a friend, and that meant a lot. And Amanda, thank you for your friendship. Straight up, you were just always happy to see me, and your presence and smile always made me feel like I could simply exist rather than talk about school stuff. Thank you! There is, of course, a list of others to thank in my department and beyond: Mari Lewis, Tori Yonkers, Adam Schuster, Ann Kim, Brandee Easter, Mia Alafaireet, Mike Haen, Jason Rocha, Jessie Gurd, Anthony Hernandez, Meg Marquardt, Hyonbin Choi, Greg Bartley, Sunny Chan, Ryan Holley, Mike Le, Matt Le, Juan Ortiz, William Ortiz, Dulce Lopez, and Kevin Mullen.

Above all, I want to thank my mentor, best friend, and brother, Antonio Byrd. I still remember meeting you after a Writing Center meeting and you asking me to chill. I thought we'd chill that night and that's it. But, we have spent years choppin it up, eating sushi, and bouncing ideas with one another. You have kept me in check and kept it real wit me ever since we've met! You have helped mold my work and inspired my research. Without you, I literally would not know how to navigate the academic system. You are one of my strongest advocates, and you have been a consistent presence in my life in and out of graduate school! You are a blessing in my life, and I love you, Antonio Byrd! All in all, goooooood goooooood! (You know what it is!).

Finally, I want to give a special shout out to my family! To my father, thank you for helping me pave this lane! You have consistently given me the courage to be who I want to be

and have supported me in all my endeavours! To my Momma, ¡perdon por ser un dolor de muelas! These past years have been rough, but throughout it all you have been by my side! You have been my rock and I love you for all your support you've given me! To my sister, thanks for being there, homes! You've always had my back and I love you! To my nephews, Noah, Andrew, and Isaac, thank you for keeping me grounded and showing me how to make time for fun! Tio loves you! And to all the cousins, thank you Cherrod, Jordan, Able, Bebe, Karla, Shelly, Daniela, Nancy, Joselyn, Luis, Panch, Poppa Coy, Andy, Miguel, Riri, Jayden, Moy (Rest in Power), Karen, Missy, Emmanuel, Cristina, Carlos, Maritza, Ito, and to NextGen: Lenny, Leah, Etzy, Camila, Rafa, Maya, and Miguel! Thank you for making cousins day an event I look forward to every month and for always looking out for me! I love you all!

Introduction: Hip Hop, Race, and Literacy

Hip Hop was born at the same time as the field of Composition and Rhetoric. During the 60's and 70's, people could defer going to war in Vietnam by attending school. And as such, college English instructors were forced to modify, adapt, and change their curriculum and instruction in order to attend to a growing group of working-class multicultural students. At the same time, in the Bronx, New York, DJ Kool Herc was throwing block parties in his local neighborhood learning how to DJ, rap, break dance, and write graffiti. So, at the same time college instructors were learning how to teach English to a growing group of multicultural students so too were Black communities producing a set of communicative skills in the context of an inner-city postindustrial New York City. And since the eruption of Hip Hop studies in the early 1990s, Composition and Rhetoric scholars have considered the diversity of teachers, places, practices, and perspectives that people develop when learning how to DJ, rap, break dance, and write graffiti.

This dissertation answers the question “how do rappers learn to rap?” More than just a genre of music, rap is a part of a Hip Hop culture that surrounds rappers. This culture constitutes its own set of communicative practice that rappers can learn, deploy, and circulate within their own communities. As such, Hip Hop can be understood as a set of lived community literacies that exists within and is deeply connected to one's environment. It is, thus, important to understand Hip Hop literacies on their own terms in order to identify how Hip Hop culture changes the way young people learn and make use of their literacies within particular social contexts.

Hip hop, rooted in the experience of urban youth of color (Rose 1994), was formally recognized as a site worthy of study by the turn of the 21st century. In particular, the term “hip hop studies” was popularized in the mid-2000s with the publication of Murray Forman and Mark Neal’s edited collection *That’s the Joint!: The Hip-Hop Studies Reader* (2004). The book featured essays written by academics and journalists and covered a range of subjects encompassed in Hip Hop studies including sampling, live performance, and Hip Hop activism. Forman and Neal insisted that Hip hop crossed all academic disciplines -- it’s literary, mathematical, scientific, spiritual, it’s highly intelligent, genius and scholarly. For them, there is no one expert in hip hop. Or someone who knows more. Hip hop is interdependent, connected and is an integral part of Black culture, the African Diaspora and this narrative called America.

Since the publication of Neal and Forman’s *That’s the Joint!*, Hip Hop has moved from the streets and into the academy. Scholars have begun to recognize the linguistic and cultural practices of Hip Hop youth to constitute a process of identity formation wherein individuals co-construct their own identity, the identity of others, and produce an understanding of their own environment (Dimitriadis 2001, Richardson 2006, Kirkland and Jackson 2009). Such advancement in scholarship has also recognized the way that Hip Hop modes of expression are no longer practiced solely by Black and Latinx youth but also by a white (Kitwana 2005) and larger global community (Pennycook 2006). More than just a musical genre, institutions of higher education have taken up Hip Hop and engaged with the culture in courses, curriculum, research, and conferences (Hill and Petchauer 2013).

Using the scholarship on Hip Hop culture, instructors have taken up Hip Hop in the classroom to develop what some refer to as Hip-hop-based education (HHBE). Scholarship on Hip Hop Based Education has typically investigated Hip Hop within the classroom setting as a

means to facilitate standard-based curriculum or forwarding the interest of schools (Hill 2009; Emdin 2010; Love 2014). Grounded in the Freirean tradition (1970), critical pedagogy abandons the “banking model of education,” where the teacher acts as dispenser of knowledge and the authority over the material. Instead, in a classroom taking up critical pedagogy, students’ own knowledge is valued and the instructor attempts to empower them to take authority over their own learning. Building off this Freirean tradition, instructors also use HHBE in tandem with culturally relevant pedagogy as a means to marry theory with practice. According to Gloria Ladson-Billings (2013), culturally sustaining pedagogies affords a fluid understanding of culture and helps students develop a critical perspective that challenges social inequity.

Recently, building off of previous models of HHBE in the classroom, a new wave of instructors have taken up HHBE as a means to help students navigate their highly technological society (Banks 2011, Turner 2011, Love 2014). These scholars investigate the relationship between hip hop production and the development of knowledge and skills necessary to navigate new information and communication technologies. In particular, they argue that HHBE must focus on multimedia production in order to provide students with the means to intervene in and critique of public and political discourse. Like most HHBE research (Cooks 2004, Emdin 2010, Hill and Petchauer 2013), this body of research derives primarily from urban public school systems that do not have the resources to support these students with a state of the art technological infrastructure. Nevertheless, these scholars demonstrate how, with proper instruction, students are still able to learn how to make use of various multimedia, critique dominant discourses, and develop skills and knowledge that they can transfer across different contexts. In their view, the knowledge and skills that students develop in multimedia hip hop

classrooms have the potential to move into other social contexts including the global media industry and within other social and educational contexts.

Scholarship into Hip-Hop composition has thus come in waves. While early scholarship on HHBE consisted primarily of historical analysis and linguistics dimensions of Hip Hop (Smitherman, 1987; Rose, 1994; Forman & Neal, 2004), subsequent scholarship emphasized concrete curricular practices that could be adopted into the classroom (Morrell & Duncan-Andrade, 2002; Cooks, 2004; Stoval 2006). These studies focused on the potential of using Hip Hop lyrics to teach academic skills and content as well as critical literacy skills by drawing on the experience and work of existing and established rappers. A recent shift in scholarship has emphasized a more communal approach to Hip Hop that focuses not on rap experts but rather nascent and up-and-coming rappers (Turner, 2011; Love, 2012; Castillo 2020). Such studies have investigated how rappers use the medium of Hip Hop to explore their identity, exercise their skills with digital and multimedia technology, and underscore, and use rap music as a form of social entrepreneurship and as a way of making money. While scholars in composition studies are beginning to explore the myriad ways that rappers learn and make use of rap, we still have much to learn from the greatest resource of knowledge on Hip Hop culture -- those who are currently practicing Hip Hop in our communities. Thus, this dissertation aims to understand the learning, deployment, and circulation of Hip Hop literacies in out-of-school settings on their own terms.

Literature Review

Studying Hip Hop literacies on their own terms and in community contexts means using an expansive definition of literacy that includes a multiliteracy, race-conscious, and place-based understanding of rap. Therefore, rap here is understood as a placed-based practice, stemming

specifically from an African American rhetorical and literacy tradition, that is made up of the interaction between words and sounds and how they are shaped through the use of digital audio tools. I review the body of research on the relationship among rap, literacy/digital literacy, technology, and race. I first review research on the beliefs of literacy and digital literacy. Then I narrow the focus on how these ideals are filtered through Hip Hop culture, a literacy for urban youth that draws on one experience with social inequity and makes use of multimodal means to talk back to power. Interest is given to rap as a set of communicative practices within the larger category of Hip Hop literacies, a communicative practice that is a hybrid of orality, literacy practices, and mediated through technology. Describing these areas of review shows how practitioners of Hip Hop have not only been marginalized from academia because of racist schooling practices but how the unique communicative practices within Hip Hop culture have been forsaken in schools at the expense of exclusively written modes of communication. More than just an opportunity to recover what has been repressed, this essay proposes to show how these unaccounted practices can in fact reshape what we think literacy is and what it can do.

Dissectin Rap: Words, Beats, Technology

Hip Hop literacies begin from the work in Composition and Rhetoric. Ever since Tricia Rose published her seminal work *Black Noise: Rap Music and Black Culture in Contemporary America*, writing scholars and educators have expressed an interest in the pedagogical potential of Hip Hop culture. From scholars such as Elaine Richardson, who carved out a broad definition of Hip Hop literacies to describe the way that hip hop practitioners manipulate words, sounds, images, and environments to position themselves in advantageous ways in their environment to scholars such as Adam J Banks, who theorized the literacy practices of DJ's as a model to help organize contemporary multimodal writing practices. Or, Gwendolyn Pough who theorized the

Black women rapper's ability to "bringing wreck" or a rhetorical challenge white-cis-patriarchal structures in the public sphere. Or Todd Craig who theorized the use of sampling as a framework for fair use citation practices. Or David Green's work on "flow" as a metaphor for drawing on multiple linguistic resources when writing. Composition and Rhetoric has thus leaned into Hip Hop to help shape and redefine what we understand as writing.

Much like HHBE discussed above, scholarship on Hip Hop literacies has gone through waves, focusing on the history of Hip Hop, its language practices, and technological innovations, and most recently to a particular priority on Hip Hop literacies as they exist in local communities. Thus, the scholars I detail below are unique in two ways. One, they focus on the work of adolescents or up-and-coming artists rather than on the work of professionals; these studies below prioritize the Hip Hop literacies of adolescents and how such work can provide insight to the way they construct their identity, read, and interact with their world. Two, they conduct in-depth studies of a particular aspects of rap (i.e. written, oral, visual, and technology). These studies, thus, provide an understanding of the way that urban youth -- particularly Black youth -- make use of uncommon literacy practices to critique society, question identity, build community, and learn how to work with new media technologies.

Focusing on the print-based writing aspect of rap, Susan Weinstein (2009) explored the role of rap on the identity construction of hip hop artists. Specifically, Weinstein argued that rap operated as a literacy-centered discourse that students use to develop and understand their social and historical identities. Through her ethnographic study of nine Chicago hip hop authors and their written work, Weinstein demonstrated how these students listened to and produced raps to explore issues regarding social positioning, gender roles, and sexuality. In particular, she showed how these artists did at times adhere to traditional gender binaries including the madonna/whore

dichotomy and sista/bitch dichotomy. And yet, she also demonstrated how these artists -- in particular men -- would use rap to inhabit the female perspective in their raps in an effort to both understand and court their female counterparts. Weinstein's analysis of these rappers' words demonstrated how these rappers partook in a complex and at times contradictory writing practices that allowed them to explore concepts of gender and sexuality but at the same time also build a community of writers.

Moving away from the written word and focusing more on the oral dimensions of rap, Newman (2005) explored the relationship between literacy, ideology, and the cipher. In particular, he argued that rap can be understood as a type of oral literacy when considered as a semiotic system with its own rules and conventions. Through his study of one group of rappers and their deployment of the cipher, he demonstrates how the cipher depends on an ideology that is expressed through the normative use of words and literacy practices. The use of those literacy practices and the ideology they construct, then, define one's understanding of a particular literacy. And, as a result, the differences in those literacy practices define the expectations of, or ideology that hangs over, that literacy for each practitioner. Newman's exploration of the cipher highlighted the way that rappers did not necessarily have to make use of the written word to produce rap and could instead focus on the oral delivery of their words.

Moving from the written and oral dimensions of rap, Jabarai Mahiri (2004) investigated the music and music videos of five hip hop artists as an out-of-school literacy practice. Through his examination of their work, Mahiri concluded that these artist produced what he referred to as "street scripts" to critique dominant representation of African Americans in urban environments. In each of their texts, Mahiri demonstrated how rappers deployed various modes of communication (including video, sound, and words) to effectively communicate their message.

He maintained that these artists were “producers -- not just a consumers -- of culturally relevant street scripts” that went “beyond the socially acceptable subjects and stylistically permissible forms of writing most often valued in schools” (35, 40). He insisted that the artist's literacy practices demonstrated a highly intellectual achievement that contrasted with their “poor” school-based performances and suggested a different view of their potential as capable learners and doers in the world.

To put it clearly, rap as a literacy defies narrow conception of literacy as simply the writing and reading of alphabetic texts. And it resists the idea of being an exclusively oral practice. It is the convergence of the oral and written in relation to technology that provides us with a more holistic understanding of rap. Understanding these forms is crucial for a more robust understanding of the social, political, and performative potential of Hip Hop literacies in marginalized communities.

What I strive to do in this dissertation is show the depth, the importance, and the immediate necessity of acknowledging one of the oldest forms of Hip Hop literacies, rap. What I'm proposing here on rap is nothing new. Rappers, producers, and DJ's have worked with and manipulated words and sound since the very inception of rap itself. In fact, in *Digital Griots* (2011), Adam Banks talks about how the DJ's skills and abilities such as cutting, mixing, and sampling provide the DJ with the ability to draw from and merge specifically African American oral and written traditions with technology. However, what I want to do here is demonstrate how contemporary rappers do not draw on any single form of literacy to compose their music. Rather, contemporary Hip Hop artists simultaneously develop and deploy digital, sonic, oral, and written literacies in order to create and distribute their work. My understanding of rap as a *multiliteracy*

allows for a uniquely undertheorized form of Hip Hop literacies that seeks to honor the complexity of a community of cultural producers who have shaped the world around us.

I see my understanding of rap as following and extending New Literacy Studies (NLS) paradigms. Seminal work on literacy by scholars such as Goody and Watt (1968) put forward a theory of literacy that argued for the idea that literacy was a societal building block. For these critics, the autonomous model examined literacy as a set of skills for decoding and producing printed texts. Yet, such a conception of literacy was not sensitive to the way that literacy differs across space and time. As an alternative to Goody and Watt's "autonomous model" of literacy, the "New Literacy" scholars (Street 1997, Gee 1990) argued for an ideological model of literacy. The ideological model suggested that literacy is a social practice that varies from place to place and from one time to another. New Literacy Studies, thus, provides rap with a theoretical foundation that examined the consequences of literacy within particular situated contexts.

In particular, my work is deeply informed by scholars who have worked to center Black/African American subjectivities to understand how literacy works as a sociocultural practice inflected with ideological beliefs about how and with whom to do literacy. NLS of Black/African American literacy practices has underscored histories and cultural contexts that provide Black/African American students with access (or lack thereof) to literacy in school (Banks 2006, Kinloch 2011, Kynard 2013), how literacy operates as a cultural practice that involves multiple linguistic resources and modes of communication (Richardson 2006, Kirkland and Jackson 2009, Turner 2011), a necessity to design curriculum and instruction that attends to the multiple literacies Black/African American students bring into the classroom (Hill and Petchauer 2013, Love 2014, Muhammad and Haddix 2016) and how to effectively develop and support student learning in and out of the classroom (Turner 2011, Banks 2011, Byrd 2020). I

draw on this Black/African American tradition of NLS not to show how Black/African American communities practice literacies respond to Whiteness, but how they center Black/African American literacy histories, cultural forms, ideologies and ways of being that already circulate in and outside the classroom.

In addition to an Black/African American NLS understanding of literacy, my understanding of rap draws on contemporary understandings of “multiliteracies.” As Allen Martin (2006) put it, we do not need “one literacy to rule them all” and this applies as much to the development of digital literacy practices as it does to alphabetic literacies. In this understanding of multiliteracy, my understanding of rap builds off the New London Group’s idea of “multiliteracy” that understands that people 1) communicate using multiple languages and 2) multiple tools. Specifically, following Unsworth (2001) who demonstrated how individuals deploy multiple literacies in an academic settings, I understand rap as a set of communicative practices housed under the meta-category of Hip Hop literacies. And, as such, rap as a communicative practice constitutes multiple literacy practices and modes of expression that work in tandem to produce hip hop music. This understanding of rap as a multiliteracy also stretches into current studies of Hip Hop literacies including the work of Elaine Richardson (2006) who understands the multiple ways “Hip Hoppas manipulate as well as read and produce language, gestures, images, material possessions, and people to position and protect themselves advantageously” (43) KC Nat Turner (2011) expands on Richardson’s multimodal definition of Hip Hop literacies to account for the way that Hip hop has been made “multimodality and intertextuality (i.e., separate modes often cross-reference each other” through songs, beats, and music videos (499). Thus, this understanding of rap draws on this multiliteracy perspective to

provide a more holistic understanding of the way Hip Hop literacies -- as a multiset of literacy practices -- circulate in the lives of those who practice them.

Finally, in a world that is rapidly changing and engaging in more multiliteracy interactions, my conception of rap draws on current theories of digital literacy as a necessary next step to account for the new media tools that individuals use to communicate with one another. In defining digital literacy, S. Craig Watkins (2011) defines digital literacy as “the development of young people’s capacity not only to access and use digital media but to use digital media in ways that create more enhanced and more empowered expressions of learning, creative expression, and civic engagement” (9). Watkin’s definition of digital literacies develops out of the work of two scholars: in particular Kathleen Tyner and Allan Martin. Whereas Tyner (1998) suggests that students need to develop “tools literacy” or low-order computing skills, Martin (2008) insists that students have to develop “digital transformation” or what he refers to as higher-order computing skills such as communication across multiple platforms and the ability to create multimodal texts. Watkins refers to this idea of “digital transformation” as “design literacy.” Within this continuum of digital literacy, individuals do not simply develop the knowledge and skills they need to operate with digital tools, but they also have the means to use those tools to intervene in the world around them. This definition echoes Jessica Marie Johnson’s (2018) understanding of digital literacy as a “survival tactic and a structural critique at the same time” (Losh 2018). My understanding of rap as a multiliteracy uses this understanding of digital literacy to understand the spectrum of learning and practices that rappers deploy when engaging with digital media to produce hip hop music. In the next section, I delineate my understanding of rap as a multiliteracy practice.

Toward a Multiliteracy Understanding of Rap

Hip Hop music or rap arises out of a historic and ongoing African American tradition of technological storytelling. Focusing on the language practices that develop out of hip hop culture, Smitherman (1997), Alim (2006) and Morgan (2017) have demonstrated how hip hop language ideology shares a common structure with the language practices of African American speech communities. These early scholars primarily focused on the syntax, lexicon, and phonology of hip hop language as it developed within primarily Black and brown communities. In particular, these scholars recognized the practice of “signifyin” to be a primary characteristic of hip hop language in particular and an African American rhetorical tradition in general (Alim 2006; Smitherman 1997; Gates 1988). Popularly explored in his book *The Signifying Monkey* (1988), Henry Louis Gates Jr. characterizes signifyin as a form of wordplay that plays with the gaps between the denotative and figurative meaning of language effectively challenging hegemonic language standards (Gates 49). And since their initial investigation, scholars have expanded on the notion of hip hop language as a “style” more than a language as it draws heavily on African American English and thus operates more as variation than a language all unto itself (Cutler, pg. 520). Thus, Hip hop language as a language style that is deeply connected to a African American rhetorical tradition.

However, as Rose (1994) insisted, to interpret Hip Hop or Hip Hop language as a universal is to decontextualize it as a cultural form; it is instead deeply connected and shaped by one’s immediate social environment. Looking at the global impact of Hip Hop culture, Morgan and Bennett (2011) demonstrated that different cultures socialized into Hip Hop manipulate various semiotic systems that constituted different styles and conveyed different messages from their North American kin. Though they saw commonalities amongst rappers within specific regional and cultural context including addressing issues of class struggle in their lyrics and their

use of word play, they maintained that their communicative practices were deeply informed by a place-based socialization of hip hop. Moving from the transnational to the national stage, Cramer and Hallet (2010) reinforce Morgan and Bennetts point by examining the specific regional identity markers that characterize Midwestern and Southern Hip hop music. Through their study, they examined lexical, grammatical, and referential particularities that effectively distinguished the communicative practices of rappers based on their regional location. Similar and yet distinctive, Hip Hop is very much a situated practice that is deeply connected to an area but can change from region to region.

Building off the idea that Hip Hop culture generated its own way of talking across spaces and was directly shaped by the language practices of African American speech communities, Elaine Richardson coined the term “Hip Hop literacies” to account for the various ways Hip Hop youth communicated with and engaged with the world around them. In particular, she uses the term to “foreground the ways in which Hip Hoppers manipulate as well as read and produce language, gestures, images, material possessions, and people, to position and protect themselves advantageously” (p. 43). In other words, she understands these communicative practices as leveraging multiple methods of communication that move beyond the written word to intervene in the social world around them. These communicative forms derive from what Richardson refers to as “street knowledge” or an awareness of systematic oppression (pg. 43). The awareness of this systematic oppression or what Cushman (1998) refers to as “the struggle” (p. 3) promotes what Rose (1994) refers to as the development of “hidden transcripts” or vehicles that critique power and social inequity (p. 100). Hip Hop literacies, thus, constitute a plurality of literacies for urban youth that draws on one’s experience with social inequity and makes use of various means to talk back to power.

If “Hip Hop Literacies” is understood as a larger meta-category that represents a broad set of literacy practices that draws on Hip Hop culture, then, rap can be understood as a specific set of communicative practices under Hip Hop literacies. But rarely is rap in itself considered a type of literacy as it is often understood as an oral or linguistic practice (Smitherman 1997, Alim 2006, Morgan 2017). And the most conservative understandings of literacy often maintain that reading and writing are essential criteria to constitute a literacy (Street 1984). However, in a sense, rap fulfills this conservative criteria of literacy. One can write rhymes using a pencil and paper and then read those rhyme (Cooks 2004). However, on paper, rap can look a lot like poetry. What distinguishes rap as a written genre from poetry, however, is how rappers draw on traditional rhyme forms and employ new rhyme strategies specific to hip hop culture including compound internal rhymes, primary and secondary internal rhymes, chain rhymes, back-to-back chain rhymes, and bridge rhymes (Alim 2003). So, on paper, rap does adhere to the narrowly defined characteristics of literacy.

Rap is not only written, though, it is spoken as well. In fact, as alluded to above, rap is most commonly understood through its association to the cipher. The cipher can most easily be understood as “improvised round-robin rapping” where individuals can also deliver pre-written rhymes (Newman 2005, p. 401). However, the cipher is not just a rhyming game. As Newman (2005) demonstrates, this oral genre -- i.e. rap -- operates as a form of literacy that depends on an ideology that is expressed through the normative use of spoken words and literacy practices. The use of those communicative practices and the ideology they construct, then, define one’s situated understanding of rap. In particular, some practices that characterize the oral delivery or rap include “flow, layering, and rupture.” As defined in Rose’s *Black Noise* (1994), flow refers to the “continuity, and circularity” of ones rhymes; layering refers to stacking of meaning in one’s

rhyme -- namely, through the use of figurative language; and rupture refers to the deliberate breaking of continuity in ones rhymes -- namely, to emphasize a point. Rap, then, can be practiced without the use of the written word when participating in the cipher. However, the interaction between oral and written raps provide us with an understanding of rap as a “vernacular literacy” that draws on both the spoken and written word to produce meaning (Paris and Kirkland 2011).

But rap needs a beat. One can, in theory, rap in acapella. However, as Schloss (2004) himself puts it: “Beats -- musical collages composed of brief segments of recorded sound -- are one of two relatively discrete endeavours that come together to form the musical elements of hip-hop culture; the other is rhymes (rhythmic poetry)” (2). Rap, then, is not simply the combination of written words and oral speech. It demands collaboration between those who make meaning with words and those who make meaning with beats. There is a division of labor in the development of beats and written texts that, when they come together, constitute Hip Hop music. And whereas the figure of the rapper or Emcee can be understood as the domain of written/oral composers, the figure of the producer can be understood as the domain of sonic composition. In short, the partnership between rappers and producers is necessary to create Hip Hop music and expands our understanding of “rap” as more than a single literacy practice but a multiliteracy practice that requires the combination of both words and sound.

Though Schloss never defines it as such, beat production can be understood as a type of “sonic literacy.” Mary Hocks and Michelle Comstock (2006), for example, have argued for a pedagogical practice they refer to as “sonic literacy,” which they define as “the ability to identify, define, situate, construct, manipulate, and communicate” with sound (paragraph 4). Beat production is made up of the very process of identifying particular beats, situating those

beats against each other, and manipulating the sounds in order to have them effectively coalesce. Beat producers achieve this manipulation of sound through their composing practices that include “locking up beats,” “quantization,” and “sampling.” “Locking up beats” consists of merging two disparate samples into a sustainable groove; “quantization” refers to the process of elevating or minimizing certain sounds in a specific track; and “sampling” can easily be understood as the reuse of a portion or sample of a sound recording in another recording to make something new. Through the practices of locking up beats, quantization, and sampling, then, beat production operates as a hip hop -- and by extension, African American -- strand of sonic literacy that can help one identify, manipulate, and interact with their sonic environment.

Rap, thus, is made up of the interaction between beats (sound) and lyrics (words) and how they are shaped through the use of digital audio tools. Rose (1996) makes this point clear when she writes: “The lyrical and musical texts in rap are a dynamic hybrid of oral traditions, postliterate orality, and advanced technology”(104). Rose’s idea that hip hop operates as a “postliterate orality” derives from Ong’s (2002) argument that literacy cannot be divorced from orality in a highly technological society. In such spaces, “a new orality is sustained by ... electronic devices that depend on their existence and functioning on writing and print” (11). The interaction between words, sounds, and technology, then, creates a postliterate orality or what Richardson (2006) refers to as “a secondary orality” that depends on technology (xvi). Yet, more than just the use of electronic devices such as computers, microphones, and speakers, rap is also dependent on digital software. Though not explicitly addressing rap in their analysis, Comstock and Hocks (2006) insists that “Experiences with digital audio tools can help build” ones knowledge and skills in the production and consumption of music. With its use of electronic and digital technologies, then, rap can be understood as a set of communicative practices under Hip

Hop literacies with it's own rules and conventions that draws on Hip Hop culture to produce texts that talks back to power.

However, to effectively record and distribute hip hop music, one does not simply need a producer and rapper; one needs an *audio engineer*. Admittedly, one could perform hip hop music without the need of an audio engineer. In fact, some of the earliest known performances of Hip Hop music were delivered at local block parties with nothing more than a DJ and turntable for beats, and a rapper and a mic for words (Dimitriadis 2009). And this process is still very much seen in many contemporary hip hop performances. One could even point to the hip hop group the Roots in order to identify how one does not even need the electronic equipment provided by the DJ, but can simply rely on more traditional musical instruments such as drums and trombones to produce hip hop music. However, nowadays, one is more often to hear their favorite Hip Hop artist not on stage, but through the radio, on soundcloud, spotify, and Apple music. One is able to listen to these tracks because the beat of the producer and the words of the rapper were crystallized into a digital sound storage known as an MP3 file. And it is the audio engineer who crystalizes the music into an MP3 for a larger audience to hear. At times a specialized practice, and at times one of the many literacies deployed by a rapper, rap as a literacy defies narrow conception of literacy as simply writing and reading alphabetic texts. In the final section, I propose a research study to learn more about this topic.

An Opportunity for Learning More

Participants in this study are members of one recording studio known as “Haven Studios,” who performed in their schools, homes, and public venues in the Chicago rap scene. The studio is sponsored by Guitars Over Guns (GOG), a nonprofit organization that operates as a mentorship program for youth from disadvantaged backgrounds to work with professional

musicians and develop their musical skills. The studio itself is located in the basement of a church on the Southside of Chicago. Haven rappers come from a mix of inner-city backgrounds ranging from two parents households to group homes. Rappers at the studio identify as Black/African American and typically come from working class families. Most live in or around the Bronzeville neighborhood on the Southside of Chicago, a historic neighborhood recognized as the city's center of Black cultural, business and political life. Though there is no formal recruitment process, most if not all participants at Haven Studios are either artists or prospective artists who know someone at the studio.

The studio is run primarily by a professional rapper and producer who I call Andrew Davies and Derrick Thomas, respectively. Andrew Davies typically opens the studio from 10AM-6PM where he and Derrick mentor incoming artists on the various aspects that go into producing hip hop music. In the studio, rappers take turns -- in a "revolving door fashion" -- recording one another. The room is split into four sections 1) the gaming station, 2) the control room, 3) the booth, and 4) the engineering station. Rappers sign up daily and wait in rotation to record their music. Rappers waiting typically play games with one another in the gaming station. Meanwhile one rapper will enter the booth to record a track, and another rapper will play the role of sound engineer in the control room. In the control room, the sound engineer becomes responsible for editing the rappers audio tracks, adjusting them where necessary and applying specific "plug-ins" or "effects" that the rapper requests. Depending on the amount of rappers in the studio, the sound engineer will "mix" or "edit" the sound files either in the control room or the engineering station -- a wall of computers set-up with software similar to that in the control room. After the rapper and engineer exit the booth and control room, the rappers waiting to

record will then take on the role of sound engineer in the control room for the next rapper in the booth, and this process will continue till everyone has had a chance to record in the studio.

Though at any given moment, the studio can be filled up with 10-15 people, I focus on the experience of six rappers in particular. I have chosen to focus on these six artist due to their diverse backgrounds in rapping, audio engineering, and sound production. I will refer to these rappers as: 1) F.A.B.L.E., 2) Prophet, 3) Re@1, 4) Messi, 5) Shakey, and 6) Shawn. All identify as African American. All are male. Their ages ranged from 20-23, with an average age of 22 years old at the time of our first interview. While some of these rappers had just finished college, others were still in progress, others had dropped out, and still others never attended. Moreover, while half of these artists held a formal job, the other half of these rappers were not formally employed but did receive income by way of their performances or by providing their audio engineering/beat production services to other artists. I also interviewed the main mentors at Haven: Andrew Davies and Derrick Thomas. Both Andrew and Derrick specialize in rapping and beat producing, respectively, but also know how to exercise the various Hip Hop literacies necessary to produce rap including audio engineering, beat producing, and rapping.

While all artists in the studio demonstrated a proficiency with writing raps, that is, they knew how to operate within standard, written modes of communication, many of the artists in the studio depended on the rappers above to help them with their written, beat making, or audio engineering process. None of these rappers above came into the studio as audio experts and all of these artists insisted that they learned how to rap in this studio and had at least two years of audio engineering as of 2019. Indeed, each of these rappers came with a different understanding of how to compose with sound before they came into the studio. Two of these rappers had little to no experience composing with sound before they entered the studio. Two of these rappers did not

have much experience with sound engineering but he did have experience with sound production or making beats. And the last two rappers did have a background in audio engineering, one by way of formal education and the other self taught. Due to their diverse background and experience with the various practices necessary to produce hip hop music, I have chosen to concentrate on the experience of these six rappers.

I gained access to this group through my participation in an additional youth literary arts organization known as Young Chicago Authors (YCA). At YCA, I met Andrew Davies, who invited me to participate in his studio. While at Haven, I met additional rappers that attended YCA including Prophet, Re@l, C.A.M., and BraxAce. And while recording music at Haven, rappers from YCA introduced me to other members of the community including F.A.B.L.E., Messi, and Shakey. For this qualitative study, I recruited rappers through a snowball sampling process. Recruitment was purposefully small scale as I sought to elicit information-rich cases on consistent long term members of the studio.

Data gathering consisted of two phases. In phase I, I conducted on site visits, one time a week, where I spent four hours per day and made observations throughout the year. In phase I, I collected the life history narrative of each rapper detailing their experience with rap and audio engineering (see Appendix). As previous research has shown (Brandt 2001, Winn 2011, Vieira 2016, Pritchard 2016), life history interviews of participants helps documents long terms changes (social, economic, political) in an individual's literacy practices across space and time -- especially with regards to the social structures that facilitate or impede such practices. Life history, then, helps create a working catalogue of the way particular people experience and adapt to major learning and life events. Throughout my study I conducted formal and informal interviews with four participants to understand their perspective on their own learning within the

studio and what they have done with that music. I have explored how the skills they learn at the studio impact or connect to their own personal or entrepreneurial goals. Other questions have look at how rapping follows these participants across multiple contexts. For example, when students are not at the studio or when the studio is closed, how they are either able to (or unable to) develop as artist; how they gather beats online or through meetings with other producers; how they get shows and what they have to do to get those shows; and how their ability to produce hip hop music impacts their other social relationships.

During phase II, I took detailed field notes during observations, video/audio recorded six hours of recording live audio engineering practices and attended two performances. Scholars (Bella Dicks et al. 2006, Flewitt 2011) have convincingly argued for what they refer to as “multimodal ethnography.” In particular they argue that the combination of both methodological approaches provide the tools to understand the development of new literacies within specific social and cultural context. That is, while multimodal data collection and interaction provides one with a way to understand why individuals make semiotic choices, ethnographic work, such as participant observation and fieldnotes, are ultimately needed to situate those moments in larger context of beliefs and practice. In their study, then, a focus on multimodality (meaning-making) and context (social and cultural) are necessary to understand an individual's literacy practices. In my study, most weeks involved about one four-hour session with participants, moving from the gaming station to the control room where I have recorded on average one-to-two hours worth of data a day. Usually within an hour of leaving the field, I wrote field notes from scratch notes and initial jottings. Using video records, I transcribed significant segments of talk, detailing each session in the form of a transcript.

In the tradition of community literacy studies, my intentions for this project were to examine Hip Hop practices on streets, where they began before being introduced into the academy. I want to see how rappers have learned about and theorized the process of hip hop production on their own terms. As a result, my interaction with my research participants takes on an emic perspective – gathering and describing the knowledge, skills, and experience as the participants understand them rather than focusing exclusively on my own interpretation. As H Samy Alim (2006) points out, researching hip hop demands direct engagement with the “cultural creators” in Hip Hop -- like the rappers, DJs, break dancers, and graffiti writers – as “cultural theorist” and “cultural critics” (p. 16). By relying on rappers as cultural creators to detail how they experience their world around them, then, I can document what it means “to be Hip Hop, to exist in a Hip Hop Culture-World” (Ibrahim cited in Alim 2006). Thus, this project will highlight not only how larger social structures that facilitate or impede one’s Hip Hop literacies but also how rappers navigate through such structures through the very use of their Hip Hop literacies.

Positionality of Researcher

I feel that it is important to point out my particular role in this larger study as a still active member of the Haven family. I served, and continue to serve, as a participant rapper in the studio that rappers actively attended every week. In this capacity I shared their interest and initiative to compose Hip Hop music rather than just listen to it. Aside from our shared desire to create Hip Hop music, I shared some other characteristics with these men: 1) I came from a working-class home, 2) identified as a person of color, 3) attended the Chicago Public School (CPS) system, 4) learned to rap at an early age, 5) and was born and raised in Chicago for the first 14 years of my life. And as I was reminded by these men, “You’re part of the Haven family.” Therefore, I saw

myself not just as a guest but as a part of the studio group with an active interest in helping each of the members in whatever way I could (e.g. giving them a ride, buying them food, helping with their music making process, etc.). To these points, I acknowledge how my proximity to the study and my role in shaping its results can be limiting.

And yet, despite the similarities shared with the young men at Haven, I was still very different. To begin with, I identify as Mexican-American and not Black/African-American, understanding that my own experience with race differs from other marginalized groups living in Chicago. I attended highschool in the Northwest suburbs of Chicago and not in CPS. I lived in the Northside of Chicago -- a part of Chicago that was far from where Haven participants resided on the Southside. Plus I wasn't just a rapper, I was also a graduate student who had the time and financial support to travel back and forth, and around the studio to meet up with other Haven participants. The consistent movement left me feeling like a distant cousin, someone that was part of the family, but not in an intimate and up-close kinda way. But, it was precisely because of this consistent movement that I often found myself in discussions with these men about their own methods for composing Hip Hop music while moving between contexts. Indeed, other researchers, positioned much different from me, might arrive at different results. I acknowledge how my identity shapes interactions, as someone who shares particular identities and not others, and relied heavily upon my relationship with the rappers to make sense of their experiences and to get their input on the data I collected from them.

Chapter Overview

I designed my dissertation as three separate articles here organized here as chapters. The chapters are organized in a chronological order discussing how rappers learned to rap before they got to Haven (chapter two), when they got to the studio (chapter 3), and once the pandemic hit

(chapter 4). Chapter Two, “Hip Hop Composition and Hybridity,” which is currently under review in *College, Composition and Communications*, examines the literacy composing processes resulting from two rapper’s experience with literacy education across settings. In particular, I report on the experience of two rappers -- Shawn and Prophet -- to argue for a process-based approach to Hip Hop composition that hybridizes self-sponsored and school sponsored writing practices to advance student’s interest in Hip Hop. In doing so, my aim is to highlight how educators might revalue and leverage writing practices that are often undervalued or ignored in school.

Chapter Three, “Mixing tracks: Notes Toward the Analysis and Design of Hip Hop Music,” which is already published in *Computers and Composition*, reports findings from an ethnographic study of the literacy practices of a group of hip hop audio engineers in one music studio. Given the often-overlooked sonic dimensions of Hip Hop cultural production, two research questions guided this study: how do those socialized into Hip Hop culture compose with sound? And what are the ways in which these practitioners are redefining sonic literacies and what it means to be literate outside of school? In order to account for the way that sound composition differs within a culturally diverse and situated context, I compiled four types of information that helped reveal the literacy practices of these audio engineers in the Southside of Chicago: video records, field notes, audio transcripts, and site artifacts. The findings describe how vocal manipulation must be a part of any rhetorical considerations and design of sound. These findings contribute to building a schema for Hip Hop audio engineering.

Chapter Four, “What it take to make Hip Hop Music in a Pandemic: Understanding design literacies in Hip Hop makerspaces,” demonstrate how in the midst of a music industry that held hostage the literacy resources and support systems necessary to record raps, rappers

from Haven develop “sharing economies” as a way to sustain their and their communities desired modes of literacy. Participants were interviewed in their respective studios to understand how they obtain the literacy resources and cultivate literacy services necessary for producing Hip Hop music in their community and with one another during a pandemic. I argue that their literacy practices can thus be understood as a protest against larger understandings of property and a bid for the redistribution of property from those who would otherwise hold such property behind economic gates. These findings hold implications for not only the way we support the varying literacies that already circulate on college campuses, but larger implications for how such tactics can teach us how sharing economies become a part of the complex process known as access and the way we understand access in higher education.

Chapter Five, “Engineering New Hip Hop Futures,” concludes the dissertation with implications for theory and practice in race and Hip Hop literacies. I ask “how might we work with Hip Hop practitioners and communities to construct ways to resist the reproduction of social stratification through Hip Hop literacies education?” To answer this question, I draw on the experiences of the rappers at Haven to develop a theoretical framework of “engineering” to develop new possibilities for Hip Hop literacies role in education moving forward. This “engineering” framework helps suss out theoretical implications for Writing Studies while offering practical steps for using Hip Hop literacies as a vehicle to reimagine the nature and purpose of Hip Hop education for and through interactions with it’s participants. I conclude by discussing the limitations of my study, especially the need for a longitudinal focus on the dynamics among race, gender, sexuality.

Conclusion

This research contributes to the ongoing efforts to identify the way that HHBE takes shape not in school contexts, but in community contexts, where it is practiced, supported, taught, learned, produced, and published. Research on Hip Hop literacies in out-of-school context can help us think anew about literacy teaching and learning across a range of contexts. Given the vast gulf that separates and continues to widen between youth who do and do not flourish in school, there is not better time to foreground the sophisticated nature of the multiple literacy practices that urban youth engage due to and in spite of the exclusion they confront in schools. Taking seriously these literacy practices is necessary to understand how youth literacy extends beyond speaking back/to larger institutions, and recognizing these rigorous and playful practices as acts of agency in the everyday lives of urban youth. Understanding how rappers learn, deploy, and mobilize their Hip Hop literacies, then, can help us broaden what it means to teach with emerging technologies, teach uncommon literacies, and the places it can (or cannot) take people.

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Hip Hop Composition and Hybridity

Revised and Resubmitted in College Composition and Communication

During one of our first interviews, Shawn described to me how he learned to rap:

“The thing is a lot of people don’t know; I was always making beats before I was ever writing raps. I wrote my first rap because of “Classic 3000,” you know the TV show, and I remember going back to school and I’d rap in front of them like during poetry club. And like when I lived with my uncle, he taught me to make beats. Actually, I have to go back even further, my mom always used to, you know, have pencils and just be tapping on stuff. And my uncle was doing it too. So I guess it started there.”

Shawn struggled to define any single space that taught him how to rap. In his attempt to describe his learning process, Shawn had to keep going back further, thinking of different locations and people he had interacted with in order to learn how to rap. And moreover, as he started to describe his learning process, Shawn continued to define an assortment of elements that characterized his ability to “rap” including writing verses, performing verses, and making beats using different types of technologies. For Shawn, learning how to rap was a *process* of combining words, speech, gestures, and technologies. And it was a process that did not develop in any single area, but across spaces.

Ever since the early 2000s, literacy and composition scholars have been invested in learning how to use Hip Hop to improve literacy and critical thinking within school contexts (Neal and Forman 2004). In particular, scholars have argued for the integration of Hip Hop texts -- primarily rap music -- in school (Petchauer 2015), they have drawn on Hip Hop culture to

develop alternative approaches to writing instruction in school (Craig 2013), they have argued for the linguistic diversity present in Hip Hop culture to be taken seriously and to be taken-up in school settings (Green 2017), and they have even created entire pedagogies centered around the idea of teaching Hip Hop within standards-based accountability environments (Paris and Alim 2014).

And yet, across these studies, scholars have yet to explain the process that rappers take to compose their work. That is, studies have yet to investigate what type of planning takes place, how does drafting work when composing Hip Hop music, when do revisions occur, how do rappers move between different composition systems, what facilitates that movement -- in short, what do rappers actually *do* when they compose Hip Hop music.

In this article, I examine the literacy composing processes resulting from two rappers' experiences with literacy education across settings. In particular, I report on the experiences of two rappers -- Shawn and Prophet -- to argue for a process-based approach to Hip Hop composition that hybridizes self-sponsored and school sponsored writing practices to advance student's interest in Hip Hop. In doing so, my aim is to highlight how educators might revalue and leverage writing practices that are often undervalued or ignored in school. Research has already begun to examine self-sponsored writing practices in a variety of settings (Moje 2000, Mahiri 2004, Yi and Hirvela 2010). Here, I follow Yi and Hirvela's notion of "self-sponsored" writing rather than the commonly used term "out-of-school writing," as the latter merely identifies a physical space where writing takes place while the former "captures the agency at work in these acts of literacy" (2010). This paper's aim is to contribute and extend our current understanding of Hip Hop self-sponsored writing as it exists across spaces.

To do so, I will first lay out a context for understanding Hip Hop composition. Then, I will delineate the context of my study. Third, I will focus on the experience of two rappers in order to describe the “hybrid” process for developing their literacy repertoires. In spite of the exclusion and marginalization these rappers typically managed in school, they used their time in school and out of school selectively, sometimes actively participating in specific environments in order to accrue complementary literacy skills and, in other instances, averting literacy practices, environments, and collaborators that impeded on the development of their rap literacy. The genius of these rappers, and potentially others like them, is the way they made continuities and moved between literacies in order to forge new possibilities for their preferred mode of composition: rap.

This study is significant for two reasons. First, this study advances our understanding of Hip Hop within school settings as a cultural practice. Rather than bring Hip Hop into the classroom as a text to “bridge” out-of-school literacies in order to “scaffold” in-school practices, thus forwarding the interests of schools over the interests of students (Christiankis 2011), this study demonstrates the reciprocal relationship between school and self-sponsored writing practices where both can benefit from each other. Rather than remain unidirectional, this study shows the multidirectional benefits of combining the writing, reading, oral and performances practices that we learn across spaces. Second, this study is significant as it centers African-American writing practices for the purposes of composing different types of texts in school (Petchauer 2016). In literacy and composition studies, and in the humanities in general, too often we attend to the practices of communities outside of the academy in order to advance our own situated ways and doing and being that are specific to the academy. This study instead encourages the combination of different situated ways of doing and being in order to advance the

goals of Black and other marginalized populations who compose and publish different texts. Though by no means a definitive approach to teaching Hip Hop composition, this study emphasizes a reorientation of how and why we use Hip Hop in our writing classrooms by focusing on the processes of how things come to be rather than how things currently exist in the present.

Hip Hop, Composition, and Hybridity

Hip Hop in composition studies is nothing new. It's been nearly a decade since Adam Banks (2010) had to check predominately white scholars who appropriated "sampling" and "remixing" as tools for school-sponsored writing. His argument was simple: "sampling" and "remixing" derive from African-American and Hip Hop storytelling traditions. They are ways of composing that come from Black culture. And to appropriate these practices for in-school writing without engaging in the cultural and historical context that they derive from is to participate in "the long line of those who have 'taken our blues and gone' as Langston Hughes would call it" (pg. 13). Since then, Hip Hop Compositionists have worked to revisit Hip Hop composition practices from a culturally and historically sensitive perspective. For example: Todd Craig (2013) who re-examined "sampling" practices within Hip Hop culture to re-theorize fair use and citation. Or Korina Jocson (2013) who re-examined "remixing" in its relation to Hip Hop as "a larger remix culture that includes, but is not limited to, graffiti, break dancing, DJing, MCing, language and fashion" (pg. 70). Or more recently, David Green (2017) who investigated "flow," which in Hip Hop "demonstrates linguistic and symbol-making competence that allows one to address various social contexts and discourse communities" (pg. 175), as a framework to encourage multilingual use in one's composition practices. These scholars not only understand

how sampling, remixing, and flow contribute to modern forms of composition but how they derive from and work within Hip Hop culture in the first place.

But rather than advocate for an either/or approach to writing, education scholars and Hip Hop scholars alike have advocated for a “hybrid” approach that combines school and self-sponsored modes of writing. Mary Christiankis (2011) has defined “hybridity” as “the bringing together of children’s multiple textual lives and repertoires” (pg. 1138). This combination of formal and informal learning within school settings, she claims, opens up what Kris Gutiérrez (2008) refers to as a “third space” where students can more actively negotiate their in-school curriculum with the skills, knowledge, practices that are relevant to them. But as Gutiérrez and Vossoughi (2014) have pointed out, hybridity does not simply occur in the classroom: “youths’ practices are developed across time and space, in boundary and border crossings, and across hybrid spaces and activity systems” (pg. 604). This idea that students learn across spaces has encouraged Gutiérrez and Vossoughi to understand “learning as movement.” That is, one learns new skills, knowledge, and practices -- writing or otherwise -- as they move from place to place. Examining the informal learning practices of Hip Hop musicians, Snell and Soderman (2014) referred to this multi-sited means of learning as “hybridized learning” or “a mix of formal, informal, and nonformal learning styles and situations” that rappers develop as they move across spaces (pg. 192). Learning how to bring “together children’s multiple textual lives and repertoires,” thus, does not become an act of learning in situated spaces, or prioritizing one writing practice over the other. Instead, it is an act of learning across spaces and hybridizing those skills, knowledge, and practices within one’s existing writing repertoires. This begs the question: what do rappers do when and as they learn to compose Hip Hop music across spaces?

Participants and Methods

To ground my discussion of the repertoire of hybrid literacy practices that these rappers exercised across spaces, I focus on the literacy life history of two rappers: Prophet and Shawn. I met Prophet through my participation at a nonprofit program called Young Chicago Authors on the Northside of Chicago. I first asked Prophet if he would be interested in participating in my study on rapper's literacy practices, to which he agreed. He then directed me to a recording studio on the Southside of Chicago where he introduced me to Shawn and other rappers, engineers, and producers. I would spend the next two years at that studio (every Friday during the school semester, and three times a week during the summer) interviewing, working with, and performing alongside the members of Haven studios. Haven studios and its members would later become the centerpiece of a larger, IRB approved, qualitative, and participatory ethnographic-based study on the self-sponsored literacy practices of rappers. This article is part of my larger study and focuses specifically on rappers experiences of developing their literacies across in school and out-of-school spaces.

I focus here on two rappers, Prophet and Shawn, because they told me that school aided their development as rappers. At this study's onset (Summer 2018), both men were 22 years old and living on the Southside of Chicago. Prophet and Shawn identified as African-American and Black, respectively. They had both attended highschools on the Southside that were part of the Chicago Public School system and had graduated with their highschool diplomas. The population at Shawn and Prophet's highschools consisted of students that came from predominantly Black and working-class households with Shawn and Prophet reporting that they felt unsafe when in and around the school building and traveling to and from school. During highschool and when I first interviewed them, Shawn was living with his military serviced mother who was attending college, and Prophet lived with his mother and grandmother -- both of

which started working after completing their high school diploma. Shawn and Prophet started rapping at an early age and aspired to become professional rap artists when I met them. And though many of the rappers I highlight in my larger study shared similar life experiences, these two rappers in particular gave explicit credit to the literacy practices they developed in school as aiding in their development as rappers. Thus, I chose to focus on Shawn and Prophet's experiences because their stories best highlight the uptake and application of literacy practices across contexts.

Data gathering consisted of documenting Shawn and Prophet's life history narratives. Life histories were particularly useful as they helped document long term changes (social, economic, political) in an individual's literacy practices across space and time -- especially with regards to the social structures that facilitate or impede such practices (Brandt 2001). Using this method of data collection, scholars have been able to reveal how domineering writing practices encourage the development of concealed writing practices amongst queer African-Americans (Pritchard 2017), how African-American students – in particular, African-American girls -- negotiate visibility in school and non-school settings through the use of critical media literacy (McArthur and Muhammad 2017), and how African-American men make use of out-of-school literacy practices scaffolded their learning coding literacies (Byrd 2020). In this study, then, I sought to better understand the life events of the participants in their own voice – especially as these voices contribute to the on-going scholarship that prioritizes the literacy life histories of Black communities in and across spaces. Thus, this particular paper represents only the life histories of these two rappers to contextualize the otherwise practice-oriented observations in my larger study.

Positionality of Researcher

I feel that it is important to point out my particular role in this study as a still active member of the Haven family. I served, and continue to serve, as a participant rapper in the studio that Shawn and Prophet actively attended every week. In this capacity I shared their interest and initiative to compose Hip Hop music rather than just listen to it. Aside from our shared desire to create Hip Hop music, I shared some other characteristics with these men: 1) I came from a working-class home, 2) identified as a person of color, 3) attended the Chicago Public School (CPS) system, 4) learned to rap at an early age, 5) and was born and raised in Chicago for the first 14 years of my life. And as I was reminded by these men, “I was part of the Haven family.” Therefore, I saw myself not just as a guest but as a part of the studio group with an active interest in helping each of the members in whatever way I could (e.g. giving them a ride, buying them food, helping with their music making process, etc.). To these points, I acknowledge how my proximity to the study and my role in shaping its results can be limiting.

And yet, despite the similarities shared with the young men, I was still very different. To begin with, I identify as Mexican-American and not Black/African-American, understanding that my own experience with race differs from other marginalized groups living in Chicago. I attended highschool in the Northwest suburbs of Chicago and not in CPS. I lived in the Northside of Chicago -- a part of Chicago that was far from where Shawn and Prophet resided on the Southside. Plus I wasn't just a rapper, I was also a graduate student who had the time and financial support to travel back and forth, and around the studio to meet up with Shawn and Prophet. The consistent movement left me feeling like a distant cousin, someone that was part of the family, but not in an intimate and up-close kinda way. But, it was precisely because of this consistent movement that I often found myself in discussions with these men about their own methods for composing Hip Hop music while moving between contexts. Indeed, other

researchers, positioned much different from me, might arrive at different results. I acknowledge how my identity shapes interactions, as someone who shares particular identities and not others, and relied heavily upon my relationship with Shawn and Prophet to make sense of their experiences and to get their input on the data I collected from them.

Hybridity in Hip Hop Composition

In this section, I offer close readings of two rapper's literacy life narratives that sketches answers to the question above. I unpack how two rappers, Shawn and Prophet, hybridized their writing practices as they moved across spaces on the Southside of Chicago. I do so to illustrate how hybridization became a purposeful heuristic in the multiple aspects of their literacy development. I detail how attending to participants' compositional practices across spaces revealed the mix of learning practices and situations that took place online, in apartment units, and throughout the school day that at times supported and at other times got in the way of these rappers learning how to rap. To navigate this terrain, the participants of this study intentionally aggregated, developed, and transformed their writing practices and products that drew on writing practices they developed across spaces in order to learn how to rap.

Although both rappers participated in the written, oral, technological and embodied dimensions of rap, for clarity, I emphasize specific themes in each case. For Shawn, I found that his hybridization efforts provided insight on rappers' writing process, highlighting the selective and interrelated relationship between writing, reading, and performance necessary to compose Hip Hop music. For Prophet, I found that his hybridization practices affords insight in an often overlooked dimension of Hip Hop music: sound or beat production -- namely, the reciprocal and dynamic relationship between body and technologies that constitute an additional type of compositional learning necessary to rap. Before I continue, it is important to note here that these

two life histories are not representative of an entire group's compositional practices. They are, however, examples of what hybridization can look like when learning how to rap and should spark exploration about other ways that those socialized into Hip Hop learn to compose.

Shawn: Hybrid rapping at school, outside of school, and online

As various scholars have made note, Hip Hop does not start in the classroom (Perry 2006, Snell and Soderman 2014, Petchauer 2015, Morgan 2017), it begins outside of school-- and Shawn's experience with Hip Hop was no different. Shawn began to develop his rap literacies by listening to rap at home. He described how his father was a DJ in the 90's for the rap duo Mobb Deep and how, as a result, his father would play a lot of old school Hip Hop at the house by artists such as Biggie, Tupac, NWA, and of course Mobb Deep. As Shawn described it, his initial engagement with Hip Hop was an affective one: "Hip Hop was always in my home. My dad would have it on the radio or I'd be watching it on TV. But I didn't really study it at first, I was just feeling it -- you know moving my feet, nodding my head, just dancing to it." For Shawn, the point of consuming rap, at least at first, was not for logical or instrumental purpose but for an affective one (i.e. he was "feeling it"). And as Emery Petchauer (2015) has noted these affective dimensions foreground a "African-centered epistemology" that highlight emotional and affective experiences that are often deligitimized in Eurocentric models that prioritize reason or logic as the central way to engage with the world (pg. 88). That is not to suggest that Shawn did not engage with logical or instrumental reading of rap at home, as I will address down below. But, his initial affective response to listening to rap characterized the unique reading practice associated with rap as a "mixed medium" consumed by the ears that also insisted on audience participation (Perry 2006).

Discontinuity between his engagement with rap at home and rap at school encouraged Shawn to engage in a process of hybridization when in the classroom. Shawn described how rap was typically brought into school to be used as a tool to “bridge” and “scaffold” more traditional literary texts (Christianakis 2011 pg. 135). Shawn explained: “We didn’t really listen to it in school. We would read the lyrics in school at the same time we would read poems by Maya Angelou or Gwendolyn Brooks. And we’d just be sitting there talking about themes, and structures, and stuff.” The affective response that Shawn developed towards Hip Hop at home was sterilized at school: no movement, just sitting; not listening; just reading or as he put it “we just sat there and read the lyrics.” In school then, culturally relevant texts were used to promote multicultural perspectives (Paris and Alim 2014), but it did so while 1) controlling how students could consume, react, and engage with such material while simultaneously 2) foreclosing the exploration and use of specific writing practices unique to such genres such as Hip Hop. So, Shawn had to learn how to take school-sponsored writing practices and repurpose them for his own uses. Specifically, Shawn recalls “underlining” as a particular writing practice that was coupled with reading at school: “They’d tell us to like underline things that stuck out to us while reading, or words we didn’t know, or specific rhyme schemes.” The underlining practice Shawn applied in school allowed him to become acquainted with rhyme schemes such as end rhymes, couplets, and internal rhymes that helped structure the poems of Maya Angelou and Gwendolyn Brooks. And in school, he was even encouraged to see how such rhyme schemes also existed in the work of some of his favorite rappers such as Chance the Rapper and Kendrick Lamar. But, he was rarely asked to explore the rhyme schemes unique to those rapper’s lyrics. Thus, though rap was typically used to facilitate school-sponsored writing and reading practices, Shawn

claimed that the poetry sections in class allowed him to “sample” or select specific literary techniques and practices that he could use when listening or studying rap on his own.

Despite the discontinuity he experienced with rap at school, Shawn used “underlining” as an active reading technique and layered that practice with writing practices he developed at home through and for the purposes of learning how to rap. Specifically, he credited *Genius.com* as a primary site for his Hip Hop literacy instruction. *Genius.com* is a website with dedicated videos that break down the rhyme scheme in a selected rapper’s verse. While an audio track of that selected verse plays in the background, the video will then color code different rhyme schemes on the alphabetic text in real time that correspond to the rehearsed lyrics on the audio track. So, for example, while listening to tracks by Kendrick Lamar, Lauryn Hill, and Tyler, the Creator, Shawn could read and identify rhymes schemes he was taught at school. But *Genius* taught Shawn not just how to refine his school sponsored literacies. Instead, it also taught him how to listen to rhymes in raps. He told me: “I would just copy some lyrics onto Microsoft [Word], and listen for rhymes. Whenever I heard something that sounded the same, I’d highlight it with the same color. End rhymes were easy: I could just see them. But stuff that didn’t look like it should rhyme on paper made sense when I listened to it.” In other words, Shawn was hybridizing his reading practices as he moved from one place to another. Here, layering did not simply mean the use of figurative language to develop meaning through the written word (Rose 1994) or the layering of textual materials such as words, sounds, or images (Petchauer 2015). Rather, layering here meant the combination of literacy *practices* that Shawn learned from engaging with digital technologies and combining it with the formal practices he developed at school. Yes, he developed a specific reading practice at home specific to rap that was different

from what he learned in school, but his engagement with rap as a hybrid text forced him to develop hybrid practices that combined what he learned in and outside of school.

Layering and combining the reading practices he learned both at school and at home, Shawn created a continuity -- or a flow -- between his reading and writing practices to learn how to rap. As seen above, Shawn “marked” or “highlighted” words as a reading practice. His marking process was informed by both in and out of school reading practices. But for Shawn, the act of putting pen to paper, or digital highlighter to screen, made reading and writing a deeply reciprocal activity. For example, once Shawn fully “highlighted” lyrics on Microsoft words, the markings he wrote became a “map” for him to read: “After I highlighted the verse, I could see the way other rappers were rhyming. It was kinda like a map, and I’d use it to write my own bars.” These “maps” that Shawn created did more than simply provide a template for his writing; it binded his reading and writing practices together into a single practice. Reading lyrics led to writing marks which in turn to reading maps which led to him outlining a structure for his own raps. Shawn’s map making process echoes Gerald Graff and Cathy Birkenstein’s (2018) own “templates” for academic writing that, like Shawn’s own practice, makes clear “the rhetorical patterns that are key to academic success” (pg. xix) and operate as “stock formulas” that he gathered from more experienced writers -- in this case, rappers (xviii). But whereas Graff and Birkenstein provide templates to mimic the prose of other academic writers, Shawn created maps that mimicked the rhyme scheme of other rappers. Here the literacy practice of reading flowed into writing. Flow was not just the skillful use of language or other multimodal means to effectively present ideas (Green 2017). Here flow was a *process* of combining literacy practices -- namely reading and writing -- in an effort to create textual artifacts that would help in the creation process. Hybridization in Hip Hop Composition, thus, included creating a flow or

continuity between reading and writing through the in and out of school practices that Shawn aggregated across spaces.

Creating a flow between reading and writing at home, Shawn built on his map making process through writing practices he extracted from school. Specifically, Shawn discussed how school taught him to make “lists” as a practice for writing free verse poems. “We’d get a topic and they’d ask a bunch of questions. And we’d answer them using a single word. Then, we had to use those words in our poem. I still make lists when I rap,” he told me. Whereas his “rap maps” at home gave Shawn a road or outline to follow when constructing his verses, the writing practice of making lists at school provided him with resources to fill in that map. And as free verse poems had no strict format to follow, Shawn would take advantage of the free verse genre and structure his rap maps in class and then use the collection of words he generated that day to write out his verses. Again, Shawn sampled a practice, layered on top of his existing literacy repertoire. And used the skill for his own version of writing. Or, as Vossoughi and Gutiérrez (2011) would put it, he developed, extended, and leveraged his repertoires of practices across settings in order to learn (pg. 604)-- specifically, learn how to rap. The writing practices he developed out of school, indeed, “scaffolded” his in school practices (Christianakis 2011). But not always. As Shawn made clear, “I couldn’t be using my phone in class. And I couldn’t always remember the lyrics to the song. So, if I had to write it out [i.e. the lyrics], it took a long ass time for me just to chart out the whole thing. So, I’d just write whatever.” The technological limitation placed in class foreclosed a crucial writing practice for Shawn that relied on digital technology. And though he was able to hybridize in and out of school writing practices that contributed to his literacy repertoire, Shawn had to struggle against school policies that tried to control what writing was and could look like in school.

While in school he hybridized in and out of school writing practices, at home, Shawn's literacy repertoires expanded as his rap literacies needed to account for an additional practice salient in rap: oral performance. That is not to say that poetry does not have its oral dimensions. Kermit Campbell (2005) has highlighted the consistent legacy between spoken word poetry and rap, recognizing both as an oral art with roots in African American culture in the US. Yet despite their common lineage, rap is different from spoken word poetry, for as Shawn put it: "raps gotta have a beat." Words could not just be spoken in rap. In rap, the words needed to fit on a beat, on a given rhythm. At home, Shawn took the writing practices he developed through home and school and fused that practice with an oral practice he gathered from his uncle. For example, Shawn claimed that he learned to combine words, orality, and musical instrumentals by learning to "count beats:" "I grew up watching my uncle rap...So I'm sitting there in my mind, I'm going over it with him in my mind. And so I'm like, okay, this word fits on this beat, so I'm like doing a 1, 2, 3, 4 -- that type of thing. So when it got to the point of me actually rapping I already had the flow on point." In order to "fit" his written and in turn spoken words onto a beat, Shawn claims that he learned to count the base and clap on a beat. Shawn described how a full count (i.e. 1-4) was called a "bar." Whereas the base landed on the "1st" and "3rd" count, the clap or snare would land on the "2nd" and "4th" count. He would anchor his end rhymes on the "2nd" and "4th" count. And to add complexity, Shawn would introduce more rhyme schemes between the 2nd and 4th beat, or between bars. Beat counting, then, became a uniquely Hip Hop composition practice that helped Shawn create a "flow" for his writing by combining oral performance with the written word. Here, flow was not just a metaphor for composition (Green 2017), it was a composition practice unique to Hip Hop that consisted of moving words in stasis to words in motion through oral performance. Thus Shawn needed to

hybridize not just individual read and writing practices that he learned at home in school, but he needed to combine different literacy skills such as reading, writing, and oral performance in order to effectively rap.

As a literacy practice, performance was also accounted for in his academic literacies at school-- though not to the extent that Shawn engaged with it at home. Shawn described how during class, performance was more like “show and tell” -- a low stakes practice that students could opt in or out of. Instead, he claimed that his aptitude for performance developed primarily through his participation in his school’s after school poetry club. Here Shawn described how he learned about “safe space” rules, where one would feel confident that they would not be exposed to discrimination, and the importance of language choice when anticipating a live audience. The poetry club, in other words, provided a code of ethics for Shawn and other students to follow. And with these codes, they also provided students with instruction on how to make the most out of their voice amongst a diverse audience such as delivering dynamic versus monotonous tones, memorizing rather than reciting from rehearsed scripts and creating complex versus predictable rhyme schemes. But, in his own self-sponsored writing, Shawn recognized how body movement (Perry 2004) was a necessity for performance but not taught in school: “The code was useful because it taught me how to perform in front of all kinds of people -- you know how to choose my words. But we also had to move when on stage. And like we didn’t really learn that in school. We were just copying stuff we saw outside of school and doing it on stage.” As a practice, performance in school thus provided principles for performance rather than practices for performance. Sampling the performance principles he found useful, Shawn insisted that hybridizing his literacy practices in school required him to tap into practices he had learned outside of school and move them into school.

The development of physical movement as a literacy practice was undoubtedly exercised in school, but Shawn learned how to effectively layer physical movement as a performance practice alongside other literacy practices outside of school. As discussed at the beginning Shawn initially developed his physical practices while dancing to music he saw online or while around other family members: “I had all the moves -- “dirt off your shoulder,” “lean-wit-it-rock-wit-it,” “milly rock,” -- like I’d just copy what my family did or what I saw on YouTube.” Shawn’s experience advances Snell and Soderman’s (2015) own analysis of informal learning practices by demonstrating how learning how to rap may not occur with “adult supervision and intervention” but it is definitely informed by adults embodied practices, as seen in Shawn’s own development of embodied practices (pg. 185). These practices, as Shawn’s experience underscores, does not simply occur offline however, but is informed by the online spaces as well. And it was through the interaction with digital spaces that Shawn could tap into an archive of physical movements both in school performances or while in the cipher with his friends: “If I was rapping, sometimes I’d think of like specific moves and make sure my words rhymed or I’d be rhyming and I’d just start dancing and others would join. In school, I’d tried to make it make sense with the whole piece, but if we was just spitting, I’d kinda do whatever I wanted.” The linguistic dimensions of the cipher have been central to various studies of hip hop and the cipher (Morgan 2017). But the cipher ain’t just linguistic. Yes, in the cipher, pre-written and impromptu verses were often recited out loud, yet, as Shawn made clear, so too did scripted and impromptu physical practices make their way into the cipher. Shawn’s embodied practices became crucial not just to his spoken word poetry at school but in his rap performance outside of school as well. And those embodied practices developed not in opposition to other literacies, but through an active process of hybridity between literacy skills and composition practices. And as

his repertoire developed across spaces, as he moved from one area to another picking up, combining, and changing skills and knowledge, Shawn kept hybridizing his repertoires of practices across settings.

Prophet: Hybrid beat-making at school, outside of school, and online

Like Shawn, Prophet also developed his literacy repertoire as he moved across spaces. But whereas Shawn tended to focus on the written and oral performance of rap, Prophet focused on a separate yet interconnected set of practices for his own rap literacies: beat-making. As Perry (2004) made clear, beat-making can be traced back to the origins of Hip Hop and has a direct lineage with deejays who would use turntables and mixers to create music while emcees helped move the crowd. And as technologies evolved, beat-makers started to use additional sample-based and percussion-based technologies to create beats. But beat-making goes back even further than that. And it started not with digital technologies but with the body as techne: “producing the sounds of a drum machine with one’s mouth and tongue stands in the tradition of scatting, a style in which vocalists replicate instrument sounds” (pg. 72). Perry recognizes these embodied practices as a part of and central to Hip Hop composition -- practices that Gaunt (2004) refers to as “kinetic orality:” “musical ideals and social memories passed on jointly by word of mouth and by embodied musical gestures and formulas” (pp. 3-4). And though beat-making with the body is considered a lost art (Perry 2004), Prophet insisted that beat-making as a literacy practice was still very much alive in the 21st century -- albeit a bit hidden as he moved his practices across spaces.

Prophet claimed that he started building his beat-making literacies at home. He explained how he started off by sampling sounds he heard around the house: “I’d be in the kitchen and hear a water droplet *pop,* or I’d be in the living room and hear the clock ticking *tick tick

tick*, or the door would close *boom* -- you know simple stuff.” Prophet’s experience with material objects provides nuance to Perry’s understanding of beat-boxing as a practice. That is, rather than start off by “replicat[ing] the sounds of late-twentieth-century-technology” (pg. 72), beat-boxers begin by copying the sounds of regular everyday household technologies. That is not to say that beat-makers do not eventually lean on those late-twentieth-century and even 21st century technologies to “garner materials” (Petchauer 2015) -- namely sonic materials. As Prophet explained to me, hearing household noises made him more attentive to the noises of objects he used on a daily basis: “I started paying attention to the noise my PlayStation made when I turned it on, or what noise my DS made when I opened and closed it, or just the drums I’d hear on the radio -- that too. I’d copy all those sounds” As he traveled between spaces and materials Shawn began to take-up and mimic specific sounds he heard, underscoring how his hybridization process started by mimicking not rhetorical moves but sounds, and also how his beat-boxing practices developed within a situated context filled with cross generational technologies.

During his highschool time, Prophet explained that creating beats came in two forms: 1) beatboxing and 2) pen tapping. Prophet explained how music class assisted in his beat-making literacies: “So, when I got into class, I kinda already had decent lip control but like I did struggle to breath. But like playing the sax requires a lot of lip movement and breath control to take play through a whole song. So playing the sax helped me in that way.” Prophet insisted that, in addition to developing lip and breath control, music class also taught him how to play notes on a piano, “especially focusing on like hand gestures and like finger placement on certain keys.” For Prophet, then, the music classroom became a place where he was not only able to draw on the rap literacies he cultivated at home but it also became a place that facilitated those practices by

developing his breath control, lip and finger dexterity. However, Prophet did not simply learn how to work with instruments to create music, he broke off from standard conventions of music production in school and learned how to change his own body into a musical instrument: “The sax wasn’t always there because band members would take it. So, we’d have to play piano. But we didn’t wanna play piano. So, while someone played piano, one of us would start beatboxing over the melody. Sometimes the teacher would use it as a learning moment for us, but sometimes she’d get upset. But we’d just be like “we’re practicing lip and breath control.” In other words, Prophet turned himself into an instrument, layering beatboxing practice over skills he developed in school. For Prophet, hybridizing included rupturing from expected composition instruction and tools and having to repurpose not digital technologies (Banks 2010) but his own body as a technology for musical production.

Though the music room would appear as the most apparent room for the development of his beat-making literacies, Prophet also insisted that he developed his literacies as he moved his practices to an area of the school hidden in plain sight: the lunchroom. Drawing on the breath and finger control he developed in the music classroom, Prophet gathered additional beat making techniques during lunchroom ciphers in order to further develop his rap literacies. “So, like in the hallways, we would like beatbox cause that was the only way we could make a beat, but in the lunchroom, everyone was always beating their pencils on the desk, and beatboxing, and shit. And all of us kind of had common knowledge of how to do it because of like watching others,” he told me. The movement from the music room to the lunchroom meant a movement from retooling the body to retooling other instruments of composition -- namely, the pencil. This idea of practicing beat-making in institutional spaces extends Pritchard’s notion of “concealed literacies” that develops as a result of “normative practices” that typically do not support

culturally sustaining pedagogies (Paris and Alim 2014) or literacies such as Hip Hop. It also shifts the focus on the cipher (Morgan 2017) from an overt focus on language and speech patterns to “the musical ideal and social memories passed on jointly by word of mouth and embodied musical gestures and formulas” (pg. 4). The body and the tools the body uses, in other words, become equally vital units of analysis as their linguistic counterparts when studying Hip Hop Composition. As he traveled with literacy materials and practices, thus, Prophet retooled materials and repurposed environments, taking the finger dexterity he learned in music class and repurposing those skills for his beat-making literacies while still in school. Hybridization, here, occurred despite the exclusion he experienced in school with his preferred mode of composition.

In the lunchroom, the act of beat making -- particularly through pencil tapping -- was not as simple as simply hitting the pen on the desk. As Prophet explained it, “you had to learn how to like use the tip of the pencil to act like the high hats, and use your palm as the base of the drum, and when you dropped the pen that was like the snare.” Prophet explained how he learned patterns by hearing others in the lunchroom and trying to replicate them on his own, but furthermore, he learned to create patterns by using beatboxing as a scaffolding technique for pen tapping. “We would beatbox and then slowly someone would like start hitting their palm on the table and like tapping their pencil and like you realize like the base was the palm and the eraser tip was the high hat that made the ‘chish’ sound. So to build the beat, we would beatbox and copy the beat with the pencils or vice versa.” This idea of retooling the pencil -- using the eraser tip, that which eliminates, as an instrument of creation -- extends Petchauer’s (2015) understanding of Hip Hop as centering an African-American-centered epistemology by focusing on the tools of composition -- indeed, production -- as an embodied literacy practices unique to Hip Hop. Specifically, there existed a reciprocal relationship not just between the self and others

(Snell and Soderman 2014), as it did here between those who pen-tapped and those who beat-boxed, but it existed between humans and materials. Materials spoke; they literally made sound. And beat-makers like Prophet learned to listen to those sounds, rather than words, as they moved from space to space and allowed those sounds to teach them how to move their body as a technology and in turn move technologies with their body. The layering of practices from mimicry, to embodied dexterity, and technological manipulation, yes all occurred in specific spaces. But, those practices developed as Prophet moved them between spaces transforming what was possible not just for the materials but what was possible for the human body as well. He, thus, created hybrid tools of production for sound by combining his body with the pencil and replicating noises with his mouth.

At home, Prophet took the embodied and instrumental techniques he learned in school and mixed them with skills he started to learn online. According to Prophet, “Soundation was like my first excursion into like, even learning how to make beats and do what we learned in music class, I was able to get a better feel for some of those beats at home,” he told me. As an open-access, digital audio workstation, Soundation allowed Prophet to layer the “embodied musical gestures and formulas” (Gaunt 2006) that he developed at home and in school onto a digital canvas. Soundation allowed Prophet to crystallize those intangible and ephemeral sonic materials onto tracks for him to not only hear, but to *see* sound. Much in the same way that Shawn learned to develop maps for his written verses by highlighting the verses of other rappers, Prophet learned to develop templates for his beat-making process by mimicking the sounds of other technologies for composition on Soundation -- namely, his body, pencil, and other musical instruments: “I’d loop the beats. I’d put my base on the 1 and 3 count, and the snares on the 2’s and 4’s. And I’d try to copy the songs we’d learn in class, and put them on another track. It

didn't always sound good, so I'd mess with it. But I learned to make my own patterns here." Here mixing tracks were "a collision of samples that are layered together" (Petchauer pg. 84) through patterned "loops." These loops created continuity -- or flow-- between individual sounds or other sonic materials while on the computer. Loops as frameworks for beat-making composition, thus, developed out of a hybridity of live sonic patterns that were combined and modified as Prophet and his friends moved from home, to school, to online.

Moving his beat making practice back to school, Prophet was able to sample, layer, and mix additional compositional practices that he learned from others. But, rather than develop these skills in the music classroom, Prophet developed these skills in the computer class. He explained how they would often get taken to the computer room to research articles or write papers. But while others were working on the "normative" in-school literacies, Prophet and his friends would work on their own "concealment" literacies (Pritchard 2016): beat-making. He explained, "We would like call each other over or like send the files over like Google Drive or something like that. If they were in the moment, they would like edit the beat by themselves...And then there was sometimes it was them asking me for the notes, and I would do what I knew. And we would go from there...Other times I watched and see exactly what they do in the case that if they knew something I didn't." In contrast to Snell and Soderman's (2014) own study, Prophet did find continuity between his formal and informal music education -- even though they had to develop these continuities in secret while in school. And in these covert instances, students did not simply replicate the sounds they were taught in school, but taught one another how to modify those sounds to best fit into their Hip Hop beats. In other words, melodies, chords, and note progression took on a new form as Prophet and his friends moved them onto Soundation. In the computer lab, then, Prophet developed his beat-making literacies

by moving between spaces, creating hybrid texts and practices as he shared those texts amongst others.

Back home, Prophet applied the practices he learned during his time in the computer class to experiment with his own beats. “If there was something I didn't know, I would try it. I wouldn't necessarily say I would try to the point of being like on the same level as them, I would try to see like, if this fits my style or not. Like, if it fit my style of what I would normally do, then I would keep that skill there in case I want to like dabble with it. Even if I didn't, I would learn it to the point that I can, like recognize it. If I hear it.” Prophet’s experience with developing beats, then, became a process of selective uptake and application of specific sonic formulas and resources. In this different context, the point of literacy learning was not to accrue knowledge of topics or the content of work -- at least not exclusively. Prophet sampled composition moves for his own self-directed work. In this way, his beat production process was in essence governed by a specific set of conventions that he developed alongside others (Snell and Soderman 2011), but was able to choose amongst those conventions, combine them, and make new ones. Though not all exercises in school were designed for his beat-making literacies, Prophet learned to make use of his various spaces to uptake skills and techniques that could cultivate his desired literacies. The hybridization of his beat-making literacies, thus, meant re-combining practices that he identified in specific spaces, texts, and technologies.

The hybrid practices of these rapper’s literacies and composition practices -- as they aggregate, develop, make contact, fuse, and become immiscible in multiple spaces -- offer some insights into the complexity of teaching and learning Hip Hop literacies in school. First, rappers learned to adopt, use, and retool composition practices they gathered in school, out of school, and online. They took advantage of these areas picking up moves and applying those moves in

different environments and writing genres in order to develop their own practices and process for rap. Second, in these various environments, their composition practices mixed school sanctioned and unsanctioned literacies with each other -- at times creating new composition formulas and compounds, and at other times -- due to content, pedagogy, interest or available resources -- creating a centrifuge between their literacies. Third, rappers brought together multiple modes of communication -- physical, musical, written, and digital -- in order to synthesize digital multimodal texts that operated both ephemerally and at other times were crystallized on paper or in digital files. In spite of the exclusion and marginalization they typically managed in school, these rappers used their time in school and out of school selectively, sometimes actively participating in specific environments in order to accrue complementary literacy skills and, in other instances, averting literacy practices, environments, and collaborators that impeded on the development of their rap literacies.

The Constraints on Hybridity

In considering these rappers experiences, it is also important to note that for these rappers both school and out-of-school spaces came with their own constraints. Though we have already discussed how they had to work to sample, layer, and transform their literacy practices, according to these rappers, the process of hybridizing literacies did not occur seamlessly in or between spaces. For example, Prophet and Shawn explained that developing a rap community in school did not inherently stem from the fact that they shared similar rap literacies with others. For example, in school, Prophet claimed to initially distance themselves from some of their peers due to either their “content” or “genre choice.” In particular, they claimed that some rappers who preferred to work within the genre of “Trap music” would simply propagate a stereotype of rap as being about nothing more than money, women and guns. And though they

themselves did not inherently reject trap music -- as some of their rap was informed by trap artist -- most of the participants preferred to move between genres (e.g. conscious rap, boom bap, christian rap, etc.) and address content beyond what was popularly understood as rap amongst their peers. In addition to their teachers normative in-school literacies (Pritchard 2016) and in-school that did not include composition practices specific to hip hop, Prophet and Shawn also had to navigate conflict with their own peers as they sampled specific practices from different rap genres without conforming to those specific generic norms. The ideological differences of what some of the participants wanted to achieve with their rap literacies and what they saw their peer's doing with their rap literacies informed the communities they were able to build within their respective high schools.

School tensions aside, Prophet and Shawn's hybridization process was also constrained at home. At home, rappers struggled with familial tension in various forms. In a conversation with Prophet and Shawn, for example, Prophet told me of his family's initial disappointment to pursue rap insisting, "Like I have to say, I'm a musical artists like even when people ask me 'what kind of music you make?' like I've stopped saying rap I was like 'alternative Hip Hop.'" Prophet explained how his parents did not see him as "engaging and challenging radical philosophical movements" but saw rap as an index for -- that is connected rap with -- a regressive cultural practice (Morgan 2017). Shawn explained, "I'm not rapping about what they're thinking about...They're not hearing the content, or even the sound and the instrumentals that everyone's familiar with. Because everyone's familiar with [mimics 'typical' rap beat] Like, it's awful." The reductive understanding of rap as a communicative form led these rapper's to identify as an "anti-rapper," "lyricists" or just straight up 'artist' just to avoid that stuff." Yes, they critiqued and challenged popular conceptions of rap through their own music, but they also

recognized how raps “continued discrimination in society to be a failure of the parents’ generation.” And as they couldn’t just up-and-leave home -- namely because they didn’t have enough money to rent their own apartment -- the ideological rift between these rappers and their parents caused them to simultaneously associate and disassociate themselves from a stereotypical understanding of rap when around their families.

Ideology aside, these rappers struggled to develop their rap literacies due to larger socio-economic pressures put on their lives. For example, Shawn discussed how during high school, he was kicked out of his own house due to tension between him and his mother’s boyfriend. Shawn was able to stay with his uncle which made it possible for him to inevitably continue the development of his rap literacies, as he studied how his own uncle rapped over beats. Once displaced into new neighborhoods, Shawn and Prophet discussed the reality of gun violence that existed in their existing environment not only from gangs but from the police as well. They discussed how they personally knew a friend or classmate that died during their time in high school as a casualty of gang violence. This “intrusion of violence...and repressive law enforcement” (Morgan 2017) did not simply intervene in their literacy development, but actively served as a looming agent of extermination that could outright end their lives. According to these rappers, the index or pairing between Blackness and criminality made it difficult for them to even rap on corners because police would target them: “they will put their elbow in your back so that you would react or they step on your ankle cause the video cameras don’t catch that. They want you to react!” The structural racism that these rappers had to endure at home and in their local environment made hybridization an essential process to develop their rap literacies, as they resisted these constraints in specific areas by keeping their practice in circulation across spaces.

And of course, rappers discussed how access to digital technologies and online software also presented its own constraints. Shawn and Prophet explained to me how they only had one computer in the household. And oftentimes, this computer was old or handed down. None of these computers were bought exclusively for the rappers, but were bought for the family. In this way, the rappers struggled to get quality time with their desired online software as they had to share the computer time with their other family members as well. As Banks (2010) has made clear, “technologies themselves are rhetorical in nature” (pg. 14) necessitating the process of connecting histories of technology with culture as it works across users -- everything from experts to novices. And not quite experts as in the DJ’s in Banks own study, but certainly not novices, Shawn and Prophet’s experiences demonstrate how rappers in development have to jump social and economic barriers in order to take agency over their own literacy practices. For even when these rappers did get time to go online, their computers were outdated and therefore struggled to run any of the high processing music making software including Soundation, Logic, or FL Studios, that is, if these rappers even had access to these pieces of software in the first place. Rappers insisted that all of these recording programs had features that were jailed behind “money gates” that made them difficult to fully access. For example, even when individuals did have access to certain pieces of software such as Soundation, they insisted that the free software had microtransactions that made complete use of the program difficult. In this way, the school became a place where students could make use of online software with updated technology if only for a limited time and if only in secrecy. Hybridizing their literacies across paper and digital platforms, Shawn and Prophet’s literacy practices were both inhibited and made possible by the way they moved across spaces.

What does this mean for Writing Educators?

To conclude, neither the barriers nor the points of successful hybridization should be recognized as the central takeaway here. We must understand both. Literacies move in and out of spaces, and in the recognition of that movement, we may not only better understand how literacies work in particular spaces, but also work towards understanding how those literacies collide, come together, and take shape with other literacies — specifically, based on how an individual is able to break apart and recombine those literacies in a given context. The literacy practices of these rappers demonstrate the necessity of hybridization in composition instruction, as they and their literacy practices collide with other literacies inside social structures that would otherwise suppress and restrict their critical and creative output; they moved, dipped into, and dodged literacy and literacy practices for their own purposes. Make no mistake, the hybridization of rap literacies starts in Black communities and forces its way to the center of institutions, theory, and practice to produce a more useful substance. And it is by studying the way literacies move between contexts that we may become more attuned and sensitive to the ways that literacies take shape and can be leveraged within particular spaces.

Given Shawn and Prophet's experience with learning how to rap, I propose that a similar hybrid-approach to teach Hip Hop composition in school. Hybridization occurred as these rappers moved between different meaning-making systems (words, sound, the body, technology) and combined those systems. And just like building a beat, one thing that becomes necessary in this composition process is making clear the rhetorical moves that students can practice when composing Hip Hop music across meaning making systems. When composing with words, for example, teachers can prioritize writing Hip Hop verses rather than spoken word poetry. Centering hip hop genres of writing can allow teachers to in turn use poetry to facilitate the development of specific rhyming patterns to help students decipher and decode specific

rhyiming patterns within Hip Hop songs. Decoding these rhyiming patterns can necessitate different types of “active reading” strategies that encourage students to write not only to identify but create “rhyiming maps.” Students can collectively meditate on topics that they want to discuss and create a list of words that they can use as resources to fill in their rhyiming map. As they learn to perform their songs, students can recite their lyrics without a beat, mimicking the structure of spoken word often practiced in school. Then teachers can have students learn how to count beats, and have students edit their lyrics to fit the beat. As they move between school and self-sponsored writing practices, students can actively adjust the multiple aspects of communication involved in Hip Hop: they can work on pauses within their oral delivery, they can add or remove syllable counts from their written verses, they can create their own beats to allow for complex flows that fits their lyrics. Hybridizing their practices can lead to hybrid editing practices that encourage students to focus on the specific rhetorical moves they have applied within each element of expression. The end goal should not be to create professional rappers but rather to engage students in reflectively considering how literacy practices operate across different means and cultural forms of expression.

Hybridization in Hip Hop composition moves away from bridging literacy lives to mixing them. At the risk of homogenizing culturally specific moves and reproducing racist practices that already exist in school contexts, this particular approach to Hip Hop composition emphasizes the need to understand the specific literacy practices as they exist within their specific cultural and historical context whether in one’s school or self-sponsored literacy practices. The writing, oral, technological and embodied practices help us understand the possibility of writing beyond the written word and beyond what we teach in school. Hybridization allows instructors to be taught by our students, giving them a space to practice

skills and cultural forms that are already relevant to their everyday lives, and may be uncommon in our own. In doing so, instructors not only draw on multicultural perspectives in the classroom, but we also draw on multicultural practices that sustain the ideas and activities that students already engage with in their day-to-day lives. Hip Hop is already a hybrid cultural practice and as such provides a base for considering not only how to identify but also how to responsibly hybridize the various literacy practices that students engage with as they move across spaces.

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Mixing Tracks: Notes toward the analysis and design of vocal manipulation in Hip Hop music

Castillo, Christopher. "Mixing Tracks: Notes toward the analysis and design of vocal manipulation in Hip Hop music." Computers and Composition 58 (2020): 102608.

1. Intro

Located on the Southside of Chicago, in a basement, in a room, in a corner, in an undisclosed building, Haven Studios provides a space for rappers to record their music. Every week between 10:30AM-6PM, Andrew Davies convenes with the local rappers that consists of both students who currently attend the Chicago Public School system, recent high school graduates, and up-and-coming Chicago rappers. When Andrew discusses the recording process with his mentees, he explains "I need you all to be more comprehensive rappers. I don't want you to be intimidated by the control room." The control room houses all the equipment necessary to engineer music including multiple recording hardware such as a computer, audio interface, studio speakers, microphone, and the studios preferred digital audio workstation (DAW): Pro-Tools. These rappers not only learn to record their voice into a microphone, but they learn how to organize, manipulate, enhance, and edit their voice at the studio. In the studio, then, they were more than just rappers; they were sound engineers.

Figuring out how sound works and how to work with sound has become a recent trend in writing studies scholarship. The shift in priority from working with exclusively words to working with sound in multimodal studies has provided an avenue for scholars to rethink not only their pedagogical and theoretical notions associated with writing, but the very epistemological understanding of what constitutes writing. The burgeoning field of sound studies thus provides writing instructors with the languages, frameworks, and histories to produce culturally competent scholarship and classroom design. As we zoom into sound studies under our larger scope of multimodal scholarship, we must recognize the ways that marginalized bodies produce

marginalized sounds to communicate ways of knowing that differ from standard, monomodal and even multimodal modes of composition. As we work to create new scholarship and classroom design that are sensitive to sound, we must not repeat the same mistakes we have made in our study of composition in the past— namely, the exclusion of voices both in the past and present of those who compose via different means.

As I sought to locate meaning in these engineers's sonic literacies, this study took shape around a particular set of literacy practices firmly rooted within Hip Hop based models. Following Kirkland and Jackson (2009), I resist reducing these engineer's practices into a performance of race and gender. Instead, I present the way literacy blooms within a particular studio to present a "telling case." That is, not representative of a population group, according to Kirkland and Jackson, a telling case instead serves as an example of a deeper phenomena that can illustrate theoretical issues not previously visible (pg. 28). In this way, rather than examine the individual practices of any single engineer, I examine how literacy formed and functioned within the group by identifying the patterns in practices that constituted their sonic literacies as a whole. That being said, sonic literacy did not operate as a set of universal practices at Haven. The sonic literacy practices of each engineer differed based on their own individual background and experience with producing music. And yet, many of these engineers shared a set of literate practices to create their music that developed within the specifically regional, social, and cultural environment of Haven. Put together, they referred to these set of practices as *the mixing process*. What follows then is an examination of literacy revealed through the shared multimedia production practices of Black Hip Hop sound engineers from the Southside of Chicago.

And though theoretical frameworks and terminologies to describe how sound communicates currently exist within the literature of sonic studies (Van Leeuwen 1999, McKee

2006, Cox 2011), many of these studies develop out of a study or synthesis of white repertoires of knowledge, products, and practices. Focusing on the rich cultural production of communities of color can provide scholars with new insight into practices and principles in sound studies that have previously been ignored. Focusing on the meaning-making practices of Hip Hop sound engineers, then, I argue here that Haven Engineers forces us to consider *vocal manipulation* as a part of any analysis and design of sound. Shifting the focus from predominantly white theoreticians and producers of sound to Black rappers and sound engineers, my aim is to illustrate how we can begin to think and produce differently with sound if we develop our understanding from a different, non-white starting point. To be clear, this paper is a reminder that sound studies within composition and rhetoric have almost exclusively privileged whiteness in ways that damage and stymie sound studies scholarship. My aim is not necessarily to write back to this scholarship, but rather center Black/ African American histories, cultures, and technologies as a way to underscore how Black communities persist and survive despite such scholarly negligence and delegitimization.

This study ultimately expands Heidi McKee's (2006) four part schema for composing with sound. In her article, McKee broke down her schema into four parts including vocal delivery, music, special effects, and silence. She described this schema as a "framework for talking about sound and how it functions" in the production of multimodal webtexts (pg.337). This study updates this schema by looking at the vocal manipulation practices of Hip Hop engineers at Haven Studios. The framework that Haven engineers developed not only provides a way to talk about sound and how it functions, but it also provides a *process* for manipulating, tinkering, or otherwise playing with sound when creating Hip Hop music. This process included recording, cleaning-up, and adding special effects to sound and vocal recordings when producing

Hip Hop music. It is important to note that how and why a person chooses to manipulate sound is dependent on the specific literacy practices and processes one draws on to manipulate the sound of one's voice, and those motivations and practices change between social and cultural settings. The practices of Haven Engineers are, thus, not representative of a population group, but are meant to shed light on certain practices, repertoires of knowledge, and cultural models that have been otherwise underrepresented or underexplored in literacy research.

For the purposes of this paper, then, I focus on the lived practices of sound engineers at Haven Studios in order to describe a set of literate practices that operate within the specific cultural dynamics of Hip Hop music production. The examples of vocal manipulation that I detail below such as de-essing, compressing, and eq-ing are techniques and foundational tools that are part of the technological affordances available through Pro-Tools. But they also serve as lexicon terms that are a part of the foundational and functional literacies for the engineers at Haven. Collectively, these terminology and practices develop a process for composing with sound in the studio -- a process engineers referred to as "mixing." In short, I show how the unique definitions and strategies of vocal manipulation that each artist deploys in their own work offers a rich description of the unique literate process for producing Hip Hop music that comes out of Haven studios.

This study is part of a larger on-going project, so here, I do not go into depth on the specific curriculum or instruction that took place at Haven, for I discuss those elements elsewhere. Instead, the specific goals of this article is twofold. First, to examine existing grassroots practices and processes among Black/African Americans who compose with sound outside of the academy. And, second, to identify the implication of those composition practices on our current understanding of sonic literacies as they exist in the academy. Taken as a whole,

this study elaborates on the under examined elements of Hip Hop sound literacies, helps shift the white centered focus of sound studies, and expands it by looking closely at Black composition practices as they exist in communities outside of the academy.

2. Literature Review: Where we at wit Sonic Literacies?!

Ever since the New London Group (1999) called literacy researchers and teachers to expand their definitions of literacy beyond the alphabetic, research on multimodal composition has revealed how the use of multiple modes allows for students to express themselves in ways not typically afforded by the written word alone (Mahiri 2004, Shipka 2006, Kinloch 2011). This finding is particularly prevalent for marginalized multimodal composers (Hull and Nelson 2005, Hall and Damico 2007, Sánchez 2010 Nat Turner 2011). For example, in a study that examined the digital multimodal text of one student, Hull and Nelson offered a careful analysis of the way one student was able to use images, music, and poetry that operated as an autobiographical narrative as well as a social critique of his environment. Similarly, Turner (2011) described how one African American adolescent female engaged in multimodal composition in an after school program to use “the culturally familiar media of Hip Hop and rhythm and blues (R&B)...to critically engage with issues of social justice” in her immediate environment (506). Whereas many of these scholars have looked at the linguistic (Hall and Damico 2007), visual (Hull and Nelson 2005 and Mahiri 2004), and even written (Sánchez 2010), one element in multimodal compositions that remains under explored is sound. As Hull and Nelson described it: “at this point in our understanding of the entailments and implications of multimodal communication, we find that meaning in music and sound are comparatively more difficult to penetrate than language and image” (257).

In an effort to unpack sound and audio design in particular, scholars have begun to show

how young people make use of sound and sound technologies to create meaning in the classroom. Michelle Comstock and Mary Hocks (2006), in particular, used the term “sonic literacy” to describe “the ability to identify, define, situate, construct, manipulate, and communicate our personal and cultural soundscapes” (para.2). Sonic literacy can then be understood as the way one comes to understand and interact with various types of sounds and the sources that create it. This process of engaging with sound also includes an understanding of how sound can be used and manipulated through different digital audio workstations (DAWs) such as Audacity. Comstock and Hock characterized students' engagement with sound as “a critical process of listening to and creating embodied knowledge” by “recording, amplifying, layering, and mixing sound” (para. 5). Focusing on the rhetorical and cultural effects of voice, vernacular, and vocal performance, they claim that sonic literacies help students develop a social consciousness on how sound works “to achieve resonance (or dissonance) with an audience” (“Voice in the Soundscape, para. 1). Comstock and Hocks insist that sonic literacy does not work independent of visual or textual literacies but relies on them, uplifting each modes potential when combined, including its own. Comstock and Hocks, thus, provide a base for what we now understand as sonic literacy delineating its potential in the classroom to develop social consciousness of how sound works in one’s environment.

In tune with Comstock and Hocks desire to include sound within digital writing pedagogy, scholars have focused on how such pedagogies play out in predominantly academic spaces. Katherine Ahern (2013), for example, offers a pedagogical method she refers to as “tuning” as a means for students to collectively construct an understanding of sound that involves instruments, bodies, and expectations. Following Ahern’s focus on listening in relation to sonic literacies, Stephanie Ceraso (2014) has also demonstrated how listening is an embodied

practice that includes not just the ears, but the body and eyes as well -- what she refers to as “multimodal listening.” Therefore, these scholars insist that listening must not only be understood as an ear-based practice; instead, listening is embodied and a full body practice. Together, Ahern and Ceraso (2015) have advocated for a necessity in understanding not only the consumption of sound but the production of sound -- especially as that production is shaped by one’s embodied position in a particular space, and interaction with sonic objects. In her own classroom assignments, Crystal VanKooten (2011) exposes students to “the rhetoric of music” in order to provide her students with the means to reflect on and effectively apply music as a powerful and available means of persuasion in their own multimedia projects. Understood within the context of the classroom, then, sound can be understood as an embodied, multi-sensory/dimensional, collective practice and means of available persuasion to be leveraged in communication.

An increased interest in how sound works have led other scholars to develop theoretical frameworks and vocabulary to describe how sound communicates by looking at experts outside the academy. Heidi McKee (2006), for example, offered a four part framework to examine sound including vocal delivery, music, special effects, and silence (337). In her work, McKee drew on the work of two scholars -- namely, Theo Van Leeuwen (1999) and Aaron Coplan (1957) -- to develop her framework. Whereas Leeuwen broke down vocal delivery into seven qualities that “carry culturally formed communicative meanings” such as roughness, breathiness, and pitch, Coplan broke down music’s “sensuous,” “expressive” and “sheerly musical” qualities. McKee addressed how pitch and breathiness developed out of gendered and Western understandings of sound, while Coplan’s aforementioned qualities focused on the sound quality, emotion, and structure of music. McKee expanded these pre-existing schemas with her introduction of “special

effects” and “silence” as strategic rhetorical moves. Analyzing web texts and online poems, McKee delineated the various ways that special effects could be used to provide information, serve as a cue reference, develop mood, and act as an emotional stimulus. Silence, in a similar fashion, worked as an active element in a composition as a “deferred presence of noise,” developing its meaning in relation to the other elements of sound. Indeed, McKee claims that the multiple aspects of sound -- vocal delivery, music, special effects, and silence -- needs to be understood as a set of interconnected parts within a larger mode that itself can be interconnected with multiple other modes of composition.

While McKee, Ahren, Ceraso, VanKooten and others have laid a strong foundation for naming and describing how music and sound communicate and how sound can be taught in the classroom, there is still much to learn about how composing with sound differs within a culturally diverse and situated context. With regards to Hip Hop culture in particular, for example, Tricia’s Rose’s insisted in her seminal work *Black Noise* (1994) that “rap’s primary force is sonic, and the distinctive, systematic use of rhythm and sound, especially the use of repetition and musical breaks, are a part of a rich history of New World Black traditions and practices” (89). Rose insists that aural or sonic qualities of rap are often least understood precisely because it is often thought of in reductive or simplistic terms. And though she never refers to it by name, Rose does suggest that rap is a type of literacy with its own “traditions and practices.” In fact, echoing Rose, Jeff Rice (2006) suggest that the aural qualities of rap provides an epistemological revision of knowledge that is based on “assemblage, showing off, and re-writing” — an epistemological base that traditional notions of literacy simply cannot account for. Sound studies will have an impoverished notion of sound if it relies on sound studies coming from only dominant or majority racial groups. And in fact, what a study of rappers shows, is that

part of McKee's schema, vocal delivery, can be complicated and radically expanded by looking at the literacy process of Black communities outside the academy. Given the often overlooked sonic dimensions of Hip Hop cultural production, two research questions guided this study: how do those socialized into Hip Hop culture compose with sound? And what are the ways in which these practitioners are redefining sonic literacies and what it means to be literate outside of school?

3. Research Design

This qualitative research study is not a report holding up the literacy practices of any single individual. Instead, I am following Kirkland and Jackson (2009) and focusing on the *collective* cultural competencies, models, and activities needed to produce meaning within a given social context. And in order to do so, I found multimodal participatory ethnographic research to be crucial to understanding the sonic literacies of Hip Hop sound engineers whose practices are often overlooked in sound studies. This research participates in a longer tradition of scholarship that focuses on the relationship between multimodal production -- especially as it exists in the lives of people and communities of color -- participatory ethnographic methods, and community writing (Mahiri 2004; Jackson and Kirkland 2009; Banks 2010; Turner 2012; Vasudevan and DeJaynes 2013; Turner, Hayes, Way 2013, Muhammad and Womack 2015; Kinloch, Burkhard, Penn 2017). These studies, along with my own, I feel, outline an approach to literacy that is sensitive not simply to the products of literacy but the "skilled use and manipulation of multiple systems" that constitute those larger products and, in turn, our larger understandings of literacy (Jackson and Kirkland 2009). Such an approach to research, then, forces literacy researchers to not simply look at the whole but the individual meaning-making practices that constitute the larger notion of literacy in various situated contexts.

To document the individual meaning-making practices of Hip Hop sound engineers on the Southside of Chicago, in particular, I used a multimodal ethnographic approach to collecting data. Scholars (Bella Dicks et al. 2006, Kirkland and Jackson 2009, Flewitt 2011) have convincingly argued for what they refer to as “multimodal ethnography.” In particular they argue that the combination of both methodological approaches provide the tools to understand the development of new literacies within specific social and cultural context. That is, while multimodal data collection and interaction provides one with a way to understand why and how individuals make semiotic choices, ethnographic work, such as participant observation and fieldnotes, are ultimately needed to situate those moments in a larger context of beliefs and practice. Such an approach, thus, helps shed light on the cultural models, practices, and repertoires of knowledge needed to participate fully within a given literacy community -- especially in marginalized communities where literacy is alive and manifests itself in ways that are uncommon for literacy researchers.

This multimodal participatory ethnographic study began during the summer of 2018 at Haven Studios. Located in the Southside of Chicago, Haven Studios is an extension of a non-profit organization whose various educational programs operate as mentorship programs for students that come from disadvantaged backgrounds. Haven was established in 2016, led by a professional rapper and engineer I call Andrew Davies and Derrick Thomas, respectively. At Haven, rappers, engineers, and producers came together to learn how to produce beats, write raps, and engineer music tracks. The studio itself was split up into five sections: 1) the booth, 2) the control room, 3) the mixing station, 4) the production station, and 5) the gaming station (See Figure 1). Outside of some select occasions, the production station was typically unoccupied and participants would typically cycle between the other four stations when developing their music at

Haven. This immersive context creates an ideal setting for a qualitative study of the pedagogy of Hip Hop, technology, and sound: the goal of rapping is shared, explicit, concentrated.



Figure 1

For this article, I focus on the experience of six men at Haven. I purposefully selected these men to be the focal participants for two reasons. First, these rappers were some of the most consistent participants at Haven while I was at the studio. As I spent the majority of my time traveling back and forth from Chicago on the weekends, I simply was not present to detail and account for the way that Black hetero and queer women made use of the studio throughout the week. Second, this group of men demonstrated their proficiency with rapping, audio engineering, *and* beat making while other rappers tended to specialize in only two but not all of these literacies. Due to their expertise with these various literacies, these rappers stood out as participants that many others reached out to when they needed help with their own music. F.A.B.L.E, Re@l, Prophet, Messi, Shakey, Shawn-- together these six young men comprised an interesting subcommunity at Haven whose practices challenge and expanded dominant understandings of vocal delivery through their audio engineering expertise.

The bulk of this study depended on participatory practices within Haven Studios. As a member of the studio, Andrew expected for me to contribute to the groups overall output. So, on my first day, after recording a song, Andrew put me in the control room with Re@l and Re@l

taught me the basics of mixing. Due to time constraints, I realized that neither I nor other rappers could spend an excessive amount of time in the control room, and would have to move to the mixing station to mix songs. This idea of circulating between stations encouraged rappers to take on the dual role of rapper and engineer, allowing all participants to gain greater proficiency in both. And as one rapper moved from the recording booth to the engineering studio, another rapper would move into the recording booth. The rapper/engineer in the control room would then move to the mixing station to finish mixing his tracks allowing the rapper in the booth to take on the role of engineer for an additional rapper in the booth. This exchange of roles fostered this mixing of literacy practices, as rappers would rely on one another to execute specific literacy skills when engineering on Pro-Tools or recording in the booth while simultaneously exercising the skills they already knew in each station. I relied on the generosity of the other rappers to allow me to participate and sit in the control room while they cycled through stations in order to identify patterns in their music making process.

To collect data, I collect four types of information. These types of information included video records, field notes, audio transcripts, and site artifacts. In my study, most weeks involved about one four-hour session with participants, moving from the recording station to the control room where I have recorded on average one-to-two hours worth of data per day. During these sessions, I helped participants record their tracks and they in turn aided me with my recording process. Before leaving the studio, I collected each rapper's Pro-Tools project files. And usually within an hour of leaving the field, I wrote field notes from scratch notes and initial jottings. Using video records, I transcribed significant segments of talk, detailing each session in the form of a transcript. I also kept ethnographic fieldnotes during recording sessions, performances, and interviews, and interviewed instructors and participants on their sound practices and

pedagogy. These interviews, coupled with ethnographic field notes, video records, and site artifacts, allowed me to identify how literacy formed and functioned-- indeed, bloomed -- within Haven, particularly among the audio engineers. In short, I used an understanding of how the literacy practices, process, and products functioned in the engineers construction of Hip Hop music to better understand the frameworks and terminologies that develop within this music studio by these engineers -- indeed, to better understand the practices they used to build with sound.

4. “The Grid:” An Intro to Pro-Tools and Mixing

Before drilling down into the details of audio recording and mixing details that occurred at Haven, I would like to provide a general overview of the overall process and how it maps onto a visual waveform with tools for editing and manipulating vocals on Pro-Tools. Figure 2 below represents “the grid.” The Grid is the canvas that Haven engineers used to compose with sound. To start working on Pro-Tools, Engineers needed to set-up the Grid. The Grid consisted of a series of rows called “tracks.” Each row stretched horizontally from left to right with embedded lines that marked an escalating time signature. Together, multiple tracks created a framework of spaced bars that are parallel to one another, or in other words “a grid.”

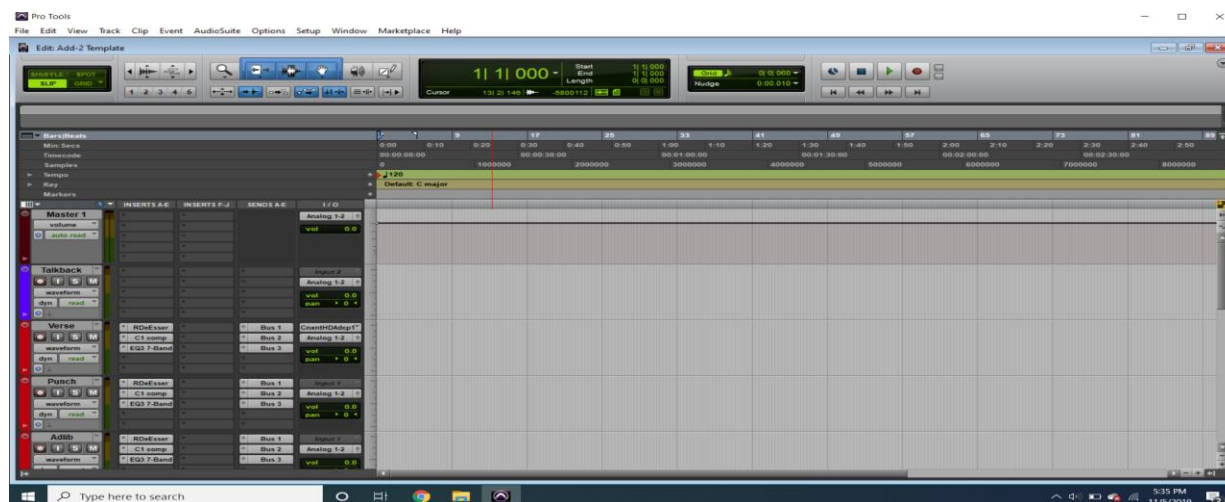


Figure 2

On the Grid, engineers typically work with four types of tracks: 1) master, 2) instrumental, 3) audio, and 4) aux. And each of these tracks had their own purpose. The master track controls the overall level of the summed audio output. The instrumental track controls the musical composition or beat of the song. The audio track allows one to store audio data as digital sound. And the aux tracks allow for a selection of different effect tracks to be routed or processed together with any of the above tracks. As engineers started to record vocals or import audio tracks, Pro-Tools would collect those audio files inside of tracks. Each of those audio files are represented as simple blocks called clips, showing their own audio waveform, and were distinctively color coded on the Grid.

To edit the audio clips inside the workspace, engineers made use of the 1) “Edit Tool” and 2) the “inserts” section. The Edit Tools, located at the top of the Grid, gave users access to a set of interactable tools to magnify the signal of specific audio clips, drag sound across and between tracks, change a clips sound duration, select specific parts of a clip and edit those specific areas -- to name a few of the available options. Engineers also made use of inserts section, located to the left of each track to add and apply adjustments and other special effects to a selected audio track. Engineers could click on any available slots in the inserts section to choose the right modifier or “plug-in” for their particular song.

Once they set up the grid, engineers could begin their music making process that they referred to as the “mixing” process. This process took place in two rooms: the booth and control room. These rooms were separated by a single wall. And in the booth, rappers would walk into a room that was set-up with a chair, microphone, and set of headphones where they would record their songs. Songs at the studio were typically structured in an alternating pattern between verse

and hook (i.e. chorus), and the song would never exceed three verses in length. And while rappers recorded their vocals in the booth, in the control room, engineers would balance the output settings of various audio tracks including vocal recordings, live instruments, and pre-recorded instrumentals. To do so, they would, first, hit the record button on a specific track and then press the number three to record the rapper's lyrics in the booth. Engineers would, then, clean-up a rapper's recording by using a set of modifiers or plug-ins. And finally engineers would add additional special effects onto specific tracks before "bouncing" or exporting their completed work as a WAV. file. During this process, engineers and rappers would typically switch roles as they alternated between the booth and control to help one another create their music. In this way, rappers became engineers in the control room and engineers became rappers in the booth.

In the sections to follow, then, I present findings based on the themes and patterns that emerged in my data. Following the practices of ethnographic research before me, below, results and discussion are integrated. Specific patterns that relate to the sound engineers use of Pro-Tools illustrate how they developed their collective literate practices for composing Hip Hop music. Ethnographic data showed that each of these engineers individually experimented with specific affordances available through Pro-Tools. These instances of experimentation were at times successful and still at other times unsuccessful. And engineers relied on one another to evaluate their use of each individual feature. Relying on one another in their music making process, participants effectively became exposed to additional ways to navigate certain features on Pro-Tools that they were either already familiar with or that were entirely new to them. Examining these practices at Haven demonstrated how engineers at Haven co-constructed-- indeed "mixed"-- their own, individual, audio engineering practices to aggregate a specifically

Hip Hop sonic literacy process. The mixing of specialized practices unique to each engineer became the roots out of which bloomed the shared collective practices that constituted literacy at Haven.

5. Recording Tracks

Learning to record, and mix, Hip Hop music was not easy for Haven engineers -- at least not at first. Throughout their first year at Haven, Andrew and Derrick discovered that rappers struggled to set up Pro-Tools in order to record one another. And though the process of actually recording another rapper was pretty straight forward (one only needs to hit “3” on the keyboard to record), the process of setting up a Pro-Tools session was a bit more complicated. Rappers did eventually learn to set up tracks on their own and were able to help others do the same without Andrew and Derrick’s instruction. But, in an effort to aid with the recording process at the beginning, Andrew and Derrick created a template to help rappers with their music production (See Figure 2). This template consisted of four separate tracks: 1) master, 2) instrumental, 3) audio, and 4) aux. And beneath the audio category existed an additional set of audio tracks labeled “harmony,” “stacking,” “ad-libs” and “punch-ins. And beneath the aux category existed three extra tracks: “d-verb,” “doubler,” and “h-delay.” This template became a model and staple that many rappers would use to eventually organize, modify, and produce their own music at Haven.

5.1 Harmonizing

While the template that Andrew and Derrick created for Haven engineers was already outfitted to address the various sonic layers that went into the composition of any song at the studio, Haven engineers learned to rely on this template and other engineers in order to develop the literate practices necessary for creating Hip Hop music at Haven. These set of practices

included 1) harmonizing, 2) stacking, 3) ad-libbing, and 4) punching-in vocals. As mentioned above, rapper's songs typically consisted of verses and hooks or choruses. And thus, engineers typically set up their grid with a track for both and record their verse and hook on their respective track. But in order to craft a dynamic vocal pattern to their songs, rappers would learn to harmonize their vocals and incorporate a set of "harmony" tracks to their grid. The "harmony" tracks on the template offered rappers the opportunity to modify the pitch of their voice in order to produce a layered composition of their hooks, though sometimes in their verses as well. Rappers would practice different low, mid, and high pitch frequencies in the booth and, in the control room, the engineer would record those pitches in their respective "harmony" track. It was through this process of developing harmony for their hooks and verses that rappers learned to identify the dynamics of their own voice and identify their own potential output. Recording harmony aided in some rappers' process of finding their rapper voice as they, in turn, were able to adopt the pitches they practiced on the harmony tracks into a seamless multi-pitch output in their future verse tracks. The shift in pitch on a given verse allowed students to modify the tension, breathiness, and loudness of their voice. More than a terminology used to identify a quality of sound, thus, harmony was a practice that helped constitute the composing process at the studio for rappers to most effectively layer various complementary vocal tracks in their music.

5.2 Stacking

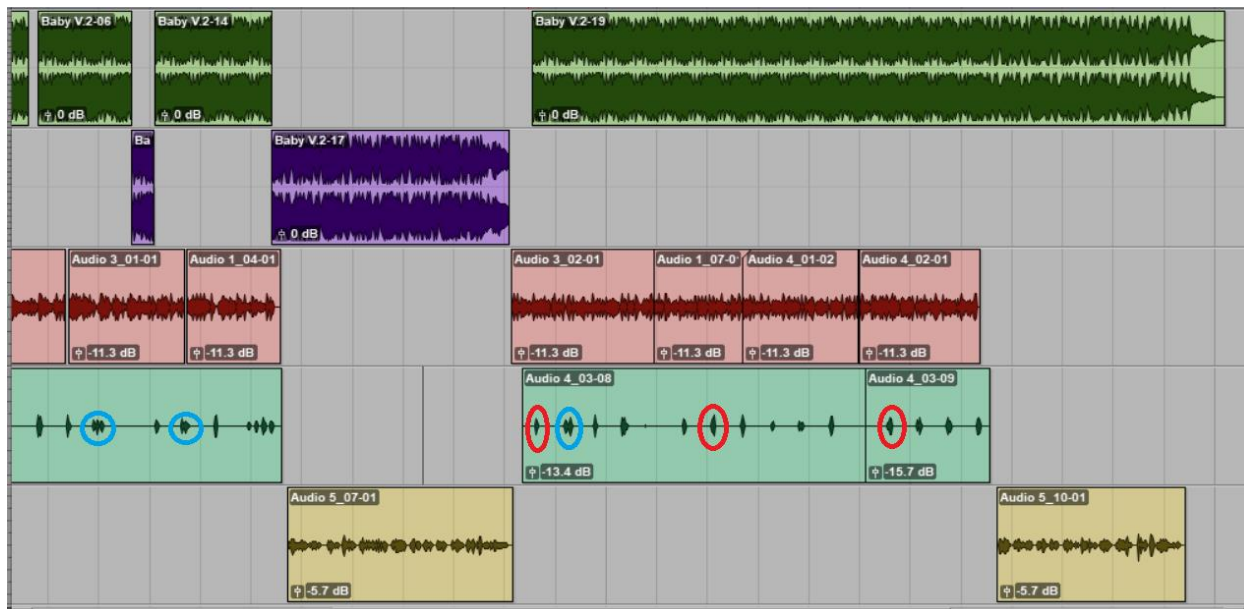
The physical process of actually outputting distinctive pitches with one's voice was complemented with a digital process that helped engineers organize their various pitches on Pro-Tools. Intimately attached to the idea of harmony, and offered as a choice on the template, was the idea of "stacking" hooks. The process of "stacking" is as the name suggests a process of

placing one vocal on top of the other in a separate track. With regards to harmony, stacking was predominantly used to create a multi-pitch output of a particular hook. In any given song, however, the hook repeated itself at least one or two times. So, rather than simply re-record the multiple harmony tracks, risking the potential that each hook would sound differently, engineers would copy and paste the hook to the appropriate locations in each song. This process of copying and pasting the hook to a particular place is referred to in the studio as “flying” the hook. However, the process of copying and pasting a hook must account for the tempo of an instrumental and must exist at the beginning of a 4:4 time signature within the song. In order to find the tempo of their instrumental, engineers relied on the technological affordances available through Pro-Tools. In particular, they relied on the grid and the “transport” tool. Once an engineer uploaded an instrumental, the grid lines would automatically adjust to correspond to the general tempo of a given instrumental. However, in order to refine the general tempo registered by the program during the initial uploading process of a beat, rappers pull-up the transport tool and simply tap the “T” button on the keyboard to correspond with the tempo of their instrumental. Pro-Tools will then shift the lines on the grid to correspond to the updated tempo. With the updated and refined tempo and shifted grid lines, rappers can then copy and paste the hook to the appropriate locations in each song. Thus, flying the hook, like stacking, became a process of “layering” tracks. And while harmony and stacking could be understood as a practice of vertical layering, flying the hook could be understood as a practice of horizontal layering to create consistency within the song.

5.3 Ad-Libbing

The mixing process at work in the studio consisted of more than just the placement of sound, however; it also consisted of the punctuation of sound as well. In addition to offering the

rhetorical choice to apply harmony in a song, Andrew and Derrick's template also offered rappers with the choice to apply "ad-libs" in their vocal recordings. The "Ad-lib" is a literacy practice exercised by rappers that operates as a second layer of words and sounds that work in relation to a rapper's verse. At the studio, the Ad-lib had no monolithic purpose and served as a calling card, a shameless boast, a primal scream, a grunt, or a form of onomatopoeia. Rappers in the studio drew on existing ad-libs within Hip Hop culture and constructed their own within the studio. Popular ad-libs such as "uh" as heard on The Notorious B.I.G's "Big Poppa," or the "woo" as heard in Desiinger's "Panda," or "skrt" as heard on Migo's "Slippery" can all be heard in Re@l's track "[Foot in the Door](#)" (highlighted in red) As a separate track, ad-libs were dispersed throughout the verse and chorus. Though not an explicit rhetorical choice available on the template itself, rappers also drew on a similar rhetorical technique to elevate the content of their songs known as "in-and-outs." Like the ad-libs, in-and-outs operated as a second layer of words and sounds that complimented a rapper's verse. However, whereas ad-libs could exist throughout the verse and hook, in-and-outs existed exclusively at the end of specific bars in order to emphasize a particular word or phrase as heard on Re@l's "Foot in the Door," when he repeats the final phrase at the end of the bars "me givin up and walkin away, you can **hold your breath**," "inspire other's as I'm goin, homie, **that's the mission**," and "no matter the opposition, my soul will **never yield**"(highlighted in blue). Similar to the em-dash and exclamation points, thus, ad-libs and ins-and-outs served as sonic punctuation practices in the studio that helped rappers extend or accentuate their existing verses.



5.4 Punching-In

Though the literate practices at the studio often developed individually as engineers interacted and experimented with the affordances on Pro-Tools, the mixing process as a whole developed out of the interaction between rappers and engineers at the studio. A primary example of a literate practice that developed out of the relationship between rapper and engineer included the “punch-in.” Punching-in refers to a recording technique where rappers can record over an existing section of a session while keeping the part of the performance that they desired or delivered at a satisfactory caliber. For these rappers, punching-in became a process of in-process editing. That is, rather than wait and edit their vocals after they had recorded an entire verse, rappers would punch-in their vocals while recording their verses for two reasons in particular. First, rappers would punch-in their vocals because they did not have the breath capacity to deliver their verses. That is, rappers would write complex verses that were too dense with words that such verses became difficult or nearly impossible to deliver without losing their breath. Whereas some rappers choose to edit their verses in order to deliver them without losing breath, other rappers insisted on keeping their verse as it existed. As a result, they would ask the

engineer in the control room to provide them with some “lead in” on their existing verse. The engineer in the control room would then create a new audio track, and navigate the time bar to five seconds before the existing verse ended. At this point, the engineer would hit play. The rapper, in turn, would repeat any words that existed within that five second time period in an effort to match the tone of the existing verse. After those five seconds, the rapper would continue to rap until they delivered their completed verse. Thus, unlike the various strategies highlighted above that in essence could be achieved exclusively by either the rapper or engineer, punching-in became a collaborative literate practice that developed between rapper and engineers. This practice allowed rappers and engineers to create continuity amongst high syllable or high energy tracks that were difficult to capture on a single recording, and, in turn, helped constitute the larger mixing process at the studio.

6. Cleaning-Up Vocals

If the sonic literacies of these engineers operated as a set of literate practices within the specific set of cultural dynamics of Hip Hop music production at Haven, then, the recording process constituted only one part of that larger system to organize sound. Once vocals were recorded, Haven engineers then began to edit their vocals by either 1) cleaning them up or 2) adding special effects to a song. In combination with the recording process, cleaning up vocals and adding special effects defined the overall mixing process for most engineers at Haven. And though I present the process for cleaning-up vocals and adding special effects to a song in a linear fashion below, I just want to make clear that this overall mixing process is not linear. It is not a process where rappers pulled up a vocal track or set of vocal tracks, adjusted the volume on specific tracks, added some special effects, and disseminated their work. The mixing process is circular. Rappers would constantly go back into the mix, re-write and re-record verse, revisit old

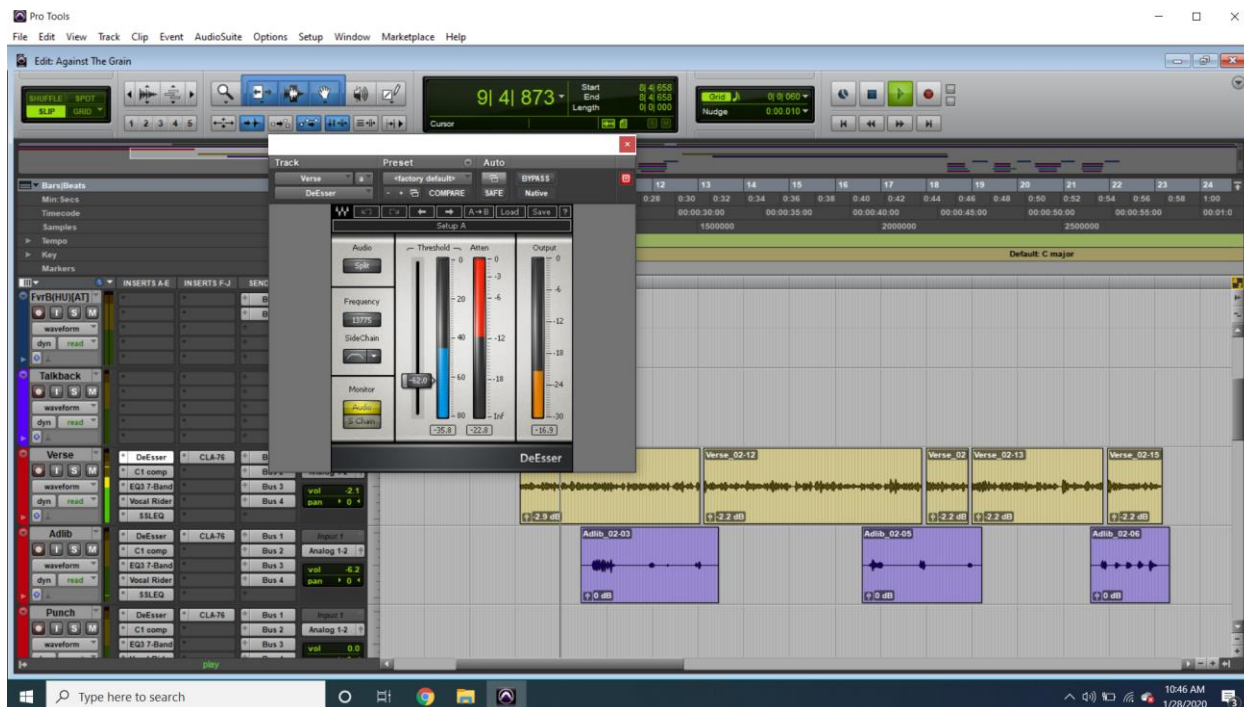
decisions that they have made, refine particular edits, and change others completely -- sometimes even after they had already distributed their projects. So, I just want to be clear that even though I'm presenting these steps in a linear process, the live practice of mixing constitutes a process of constant revision to refine specific elements that the engineer chooses to achieve a satisfactory audio output.

Now, understanding that the mixing process is not linear, whereas the "recording" stage focused on the pre-conditions to effectively create digital sound files, the "cleaning-up" process consisted of the methods for manipulating sound with its own specific rules governing the composition of sound at Haven. For the engineers at Haven, "cleaning up vocals" included the use of specific "plug-ins." Plug-ins are software components that modify sound in particular ways within Pro-Tools. Specifically, the engineers at Haven used three plug-ins: 1) Deesser, 2) C1-Comp, and 3) EQ. Though by no means the only plug-ins available to the engineers on Pro-Tools, together, these three were consistent across engineers in their mixing process when cleaning up their vocals. For each of these plug-ins, engineer's could "bypass" the plug-in effects. Bypassing effectively was an option available on pro-tools that engineers to turn on and off the added effects to a vocal track. After editing their work, engineers would activate and deactivate the "bypass" option in order to audibly register the changes they had made on a track. The clean-up process, then, constituted an integral part of the overall mixing process for engineers with its own unique set of terminology, practices, and plug-ins for refining one's vocal output.

6.1 De-Esser

One plug-in that the engineers at Haven made consistent use of was the De-esser. The De-esser aided in adjusting sibilant frequencies that occur during the pronunciation of consonants such as "s," "t," and "z." Without the application of a De-esser, the consonant

sounds would be at an audibly louder pitch when compared to the vocals on the rest of the tracks. The De-esser operated as a gauge with a blue bar representing the vocals output and an orange bar representing the adjusted vocal output. For engineer Haven, de-essing vocals was simply a process of finding the median output of a specific vocal track on the blue bar and adjusting the gauge to that level (too much and the vocalist will sound like they have a lisp, too little and the consonant sounds would be excessively pronounced). Though the process often took less than a minute to complete, this step was crucial in the mixing process to avoid distortion or what is otherwise known as “clipping” on the completed track. De-essing essentially became many engineers’ intro to the process of “compression,” or the process of lessening the dynamic range between the loudest and quietest parts of an audio signal on a given vocal track. By compressing the sibilant frequencies with the De-esser, engineers ameliorated those intense sounds and paved the way for a clearer audio signal to pass through a prospective audio output. De-essing, thus, became an individual component within the larger composition process known as “cleaning-up” vocals for Engineers at Haven and structured their literate practices for organizing sound at the studio.



The literate practices at the studio, however, expanded beyond developing an understanding of how specific plug-ins shaped vocal tracks such as the De-esser. Rather, in order to effectively organize the sound in a given audio track, they had to develop processes to audibly discern the specific ways that plug-in shaped their vocal track. Such a process can be seen while Prophet was mixing his song “[Against the Grain](#).” In an effort to ameliorate these stressed consonants, Prophet would “solo” a track, or simply isolate a specific vocal so as to only hear the sound from that specific track, as opposed to the sound of all audio tracks at the same time. Once soloed, he could simply navigate his way to a specific instance where he made use of hard consonant sounds and then “loop” that particular track before opening up the De-esser plug-in. “Looping” as the name suggests allowed engineers to repeatedly hear a selected track on repeat or on a loop. Without the loop process, engineers would have to play a vocal track once, then open up the De-esser, race to adjust the sibilant frequency of a track, and hope they adjusted the frequencies before the track ended. If not, they would have to continuously switch back and forth

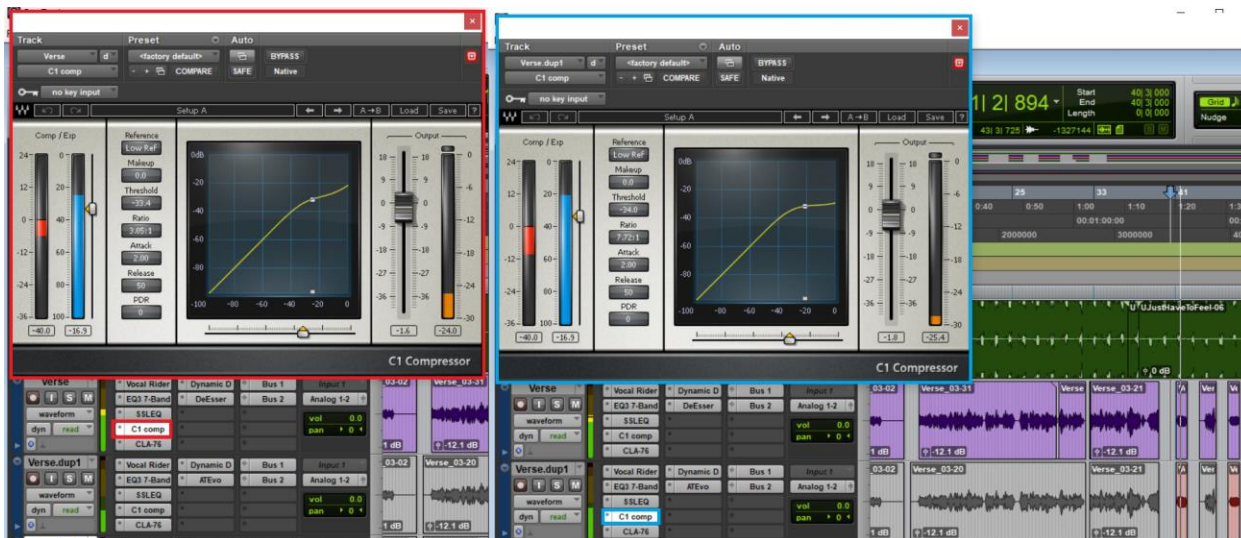
between the grid and De-esser plug-in to appropriately adjust or manipulate their vocals. Instead, the process of looping allowed the engineer to hear the vocal multiple times without having to navigate back and forth from the grid to the De-esser plugin. Learning how to solo and loop tracks, then, became an essential principle and process that governed the vocal manipulation processes for engineers at Haven to develop a clear and sonic pleasing vocal track.

6.2 C1-Comp

The mixing process at Haven studios supplied engineers with the knowledge and skills to understand sound at both the sibilant or minute level but also at the track or macro level. For example, once the vocals had been adjusted for overwhelming sibilant frequencies, engineers would supplement their use of the de-esser with an additional plug-in known as the “C1-Comp.” The C1-Comp was a plug-in variant known as a “compressor.” The application of a compressor served to control the dynamics of the vocal output. Vocals have a wide range of frequencies, some that are more difficult to hear than others and others that overwhelm the entire track. In order to find a median level for the dynamic set of frequencies and level the output, engineers would use the compressor plug-in to reduce that dynamic range and hear the entire track at an equal volume. The compressor operated on a gauge system where engineers simply needed to identify the median level between the input and output bar represented by blue and orange bars, respectively. However, simply identifying the median of the frequencies was only the first part of the compression process. Rappers also had to identify the particular level of compression they wanted to apply to their vocals. Lower compression settings allowed for more dynamics in the audio while high compression settings reduce dynamics. At lower settings (e.g. 1.5:1, 2:1, 3:1), the dynamics of the vocals sound organic or more akin to the variety of frequencies registered by the initial recording; at higher settings (5:1, 8:1, 10:1), the dynamics would develop a more

condensed sound. Thus, whereas the De-esser adjusted individual stresses on certain parts of the vocals, the compressor worked to adjust the dynamic range between frequencies on the entire vocals. The compressor, then, effectively became a cornerstone for many engineers to manage the dynamics in their own voice and shaped the overall mixing process at the studio.

Though the compressor could be seen as a core component that helped organize many of these engineer's mixing process at the studio, the specific application of the compressor varied across engineers. For example, on F.A.B.L.E's "[Black American Love Story](#)," he opted for a lower ratio (3:05:1) setting to organize his central verse track (highlighted in red below). Such a use of the compressor, accordingly, provided his vocals with a more "organic sound." Yet, when examining his stacked vocals, F.A.B.L.E applies a higher ratio (7:72:1) to each of those tracks (highlighted in blue below). The juxtaposition between the organic vocals and condensed sound creates a dissonance between his tracks that mirrors the content of the song itself that documents the dissonance between how Black Americans experience love in contrast to other dominant groups in the US. And yet, the compression make-up on F.A.B.L.E's "Black American Love Story," a solemn song indeed, varies in stark contrast to F.A.B.L.E's more upbeat song "3 on 3." Whereas on Black American Love Story, F.A.B.L.E's vocal dynamics ranged from high to low frequencies, on "3 on 3," F.A.B.L.E takes a much more monotone approach to his vocal delivery. In an effort to assist with the already condensed dynamics of his own vocal output, F.A.B.L.E also decided to apply a much higher setting to his compression settings that would similarly condense any dynamics in his voice (16:09:01). Though a common plug-in commonly used amongst Haven engineers, the rules that governed the compression of sound in each vocal track varied from track to track as each engineer accounted for the demands of the given vocal output, the vocal tracks relations to other vocal tracks, and the instrumental itself.



6.3 EQ-ing

At this point, the literate practices that governed the “clean-up” process should be understood as a process of getting rid of undesired sound. And the “EQ” plug-in contributed to this larger process of subtracting unnecessary sound from the vocal track. Through a process known as “subtractive EQ-ing,” engineers most commonly used the EQ to get rid of sounds on the “low end” of the frequency spectrum. On the EQ3 7-Band (the preferred EQ plug-in of choice for most of the engineers at the studio), the plug-in divided audio frequencies into five categories: 1) low, 2) low-mid, 3) mid, 4) mid-high, 5) high. Each of these frequencies controlled specific registers in an individual’s voice with the low frequencies capturing the base of a person's voice and the high frequencies capturing the treble or higher registers of a person’s voice. Despite the preventative measures taken by Andrew and Derrick to reduce external input within the booth, the only way to get absolute silence in a recording session is essentially to record in a vacuum. Little to few places exist with such acoustic dynamics, and as a result, the microphone in the booth still tended to pick up low frequencies in the studio that could not be registered by the human ear. And though most low frequencies on their own could not be registered by the human ear, they could still distort the audio output of the final product in two

ways. First, when accumulated with multiple other audio tracks, the low end frequencies can distort the presentation of desired vocals by adding undesired sound such as rumbling or additional background audio. Second, they can mask the base or kick in an instrumental effectively reducing the impact of each sound in the final mix. A desire for clarity encouraged many of these rappers to effectively EQ their vocals in order to address the low end sounds in the recordings. Mixing, then, was not simply a process of subtracting what one didn't like, but learning how to adjust specific and various frequencies to correspond to one's desired goals. Thus, EQ-ing became a necessary composing process that engineers at the studio had to develop in order to produce a clear and audibly pleasing song.

The process of EQ-ing vocals was a particularly complex process and constituted the most difficult aspect of the mixing process for engineers to develop at the studio. Unlike the other plug-ins that effectively operated on a gauge meter, the EQ3 7-Band demanded engineers to become familiar with the low, middle, and high pitch frequencies of their own voice. And more specifically, how to adjust the level for each individual aspect of their voice. For example, in his track "Freestyle 4" (detailed below), Shakey can be seen adjusting the level of various aspects of his voice through the EQ process. In order to adjust the volume of the low end sounds, Shakey applied a "high pass filter" included as part of the EQ3 7-Band. The high-pass filter allowed engineers to adjust the level and rate of input of their undesired frequency within their vocals. He used this high pass filter in particular to cut out the low-end noise in his vocals and reduce the low-middle frequencies of his voice as well. Given the higher pitch in his own voice, Shakey also opted to reduce the middle frequency of his voice. Now to be clear, there were times where certain engineers would leave the low ends untouched. Specifically, those engineers with deeper voices would prioritize the depth that their voice could achieve during recording and did

not want to thin out the impact of their voice. As a result, they would not modify their voice to reduce the low ends. Subtracting unwanted syllables, distance between frequencies, and frequencies altogether through the use of plug-ins was the initial process for rappers to clean up their vocals and constituted a set of literate practices for many of these engineer's sonic literacies at Haven.



7. Special Effects

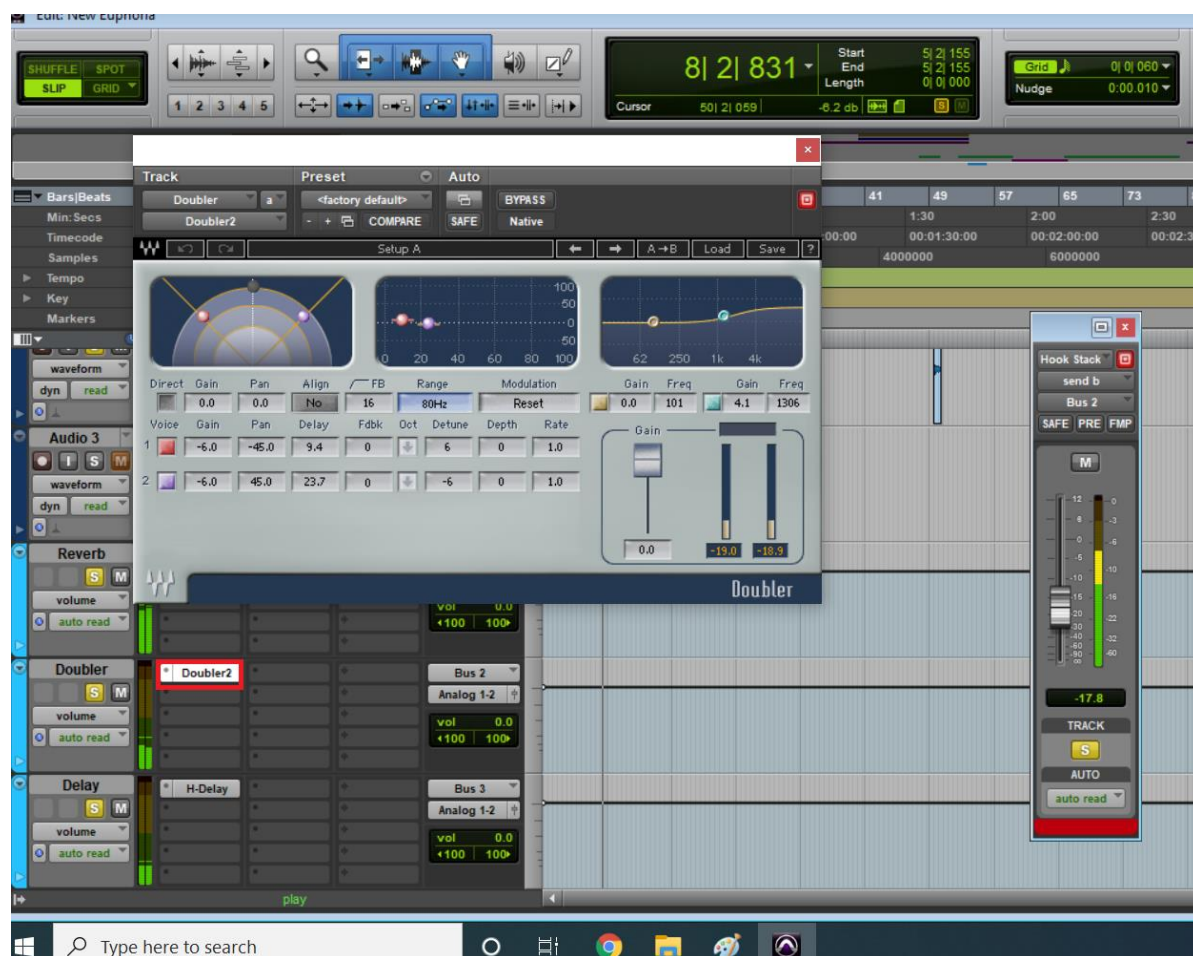
Whereas the clean up process developed out of the desire of these engineers to remove unwanted sounds from the vocal track, the process of adding special effects onto a song developed out of the desire to enhance existing or additional audio tracks. In particular, the rappers at Haven applied three sets of special effects to their music: 1) doubler, 2) reverb, and 3) h-delay. These special effects also operated as plug-ins, but in a different sense. Unlike the “clean up” plug-ins that were typically applied to a single verse or hook, the “special effects” plug-ins were applied to multiple vocal and audio tracks. As a result, rather than simply adding the plug-in directly onto a track, these plug-ins existed within their own tracks known as “aux” tracks. In this way, rather than routing the signal of the plug-in through the vocal track, the selected vocal track would be routed through the plug-in. As the plug-in was not tied to any

exclusive track, engineers would run a vocal track through the aux track and route the aux into what was known as a “bus” or a destination on the platform where each of the signals are “mixed” or brought together. In this way, engineers could apply a selected special effect onto multiple tracks and adjust each of those tracks independently without influencing the adjusted settings of one track or the other. Like the existing plug-ins available to engineers when cleaning up vocals, engineers were not limited to these three special effect plug-ins to enhance their audio tracks. Rather, the doubler, reverb, and h-delay plug-ins were the plug-ins explicitly available on Andrew and Derrick’s template and most commonly used amongst the engineers at the studio. These plug-ins together constituted the third and final stage in the audio composing process for Haven engineers. By learning to use special effect plug-ins, Haven engineers learned to reinforce and accentuate their recorded vocals.

7.1 Doubler

At the studio, engineers understood the special effects section of the mixing process to be governed by a principle of elasticity. According to the engineers at the studio, the point of special effects was to “stretch,” “fatten” or otherwise “adding layers” to a given vocal performance. Whereas a vocal track can potentially carry layers of meaning in its delivery through one’s use of pitch, roughness, breathiness, special effects can enhance the delivery of a vocal track. For example, one of the most common special effects used by engineers in the studio was the plug-in known as the “doubler.” The doubler was designed to apply a “chorus-ing” effect on any given vocal track, that is, where individual sounds with approximately the same time, and very similar pitches, come together and sound as one. The process of doubling, as its name suggests, duplicated a vocal track and effectively added an additional layer to a single vocal recording. This process of adding layers through the doubler was known at the studio as creating a “fatter”

sound and helping the vocals stand out in a mix. This effect of creating fatter vocals can be seen across all the engineers tracks including F.A.B.L.E's "Black American Love Story," Re@I's "Day in the Sun," and Shakey's "Freestyle 4." Doubling, in short, could be understood as a tool in their mixing process that helped engineers structure their mix so as to fatten up or make stand out the overall sound of a given track.



7.2 Reverb

While the doubler effectively increased the output of a given track by duplicating its pre-existing frequencies, the reverb served as a foundational tool that allowed engineers to stretch those frequencies within a given track. Specifically, when applying reverb, engineer's used reverb to cover up the space between words or phrases, but did not want to drown the mix in

reverb so that the extended vocal would clash with upcoming words or phrases or even the instrumental. As Prophet described it when mixing another rapper's track, "you don't want too much unless you are going for that effect" and then exaggerated the input level on the reverb to demonstrate the overwhelming and excessive distortion. The appropriate amount of reverb depended on the specific track the engineer was working on, though engineers tended to include more reverb in tracks with more space between phrases and less reverb with tracks with less space between their words. In order to identify the amount appropriate reverb for any given track, rappers would move from excessive reverb to no reverb, and then adjust the level according to where the reverb would start to fill in the space between words but not overshadow clash with instrumentals and other vocal tracks. Typically, engineers would apply less reverb to vocal tracks that were delivered at a rapid pace and with little distance between words and apply more reverb to tracks that were delivered at a slower space with more distance between words. One can identify such distinctions in [Prophet's "Unorthodox"](#) where his quick delivered verse has moderate reverb, but his chorus that is slightly wider spaced is given increased reverb effectively "fattening" up his chorus. The engineer's process for fattening up vocal tracks with the doubler was, thus, complemented by a stretching process wherein engineers would expand the frequencies within a given track by way of the reverb plug-in.

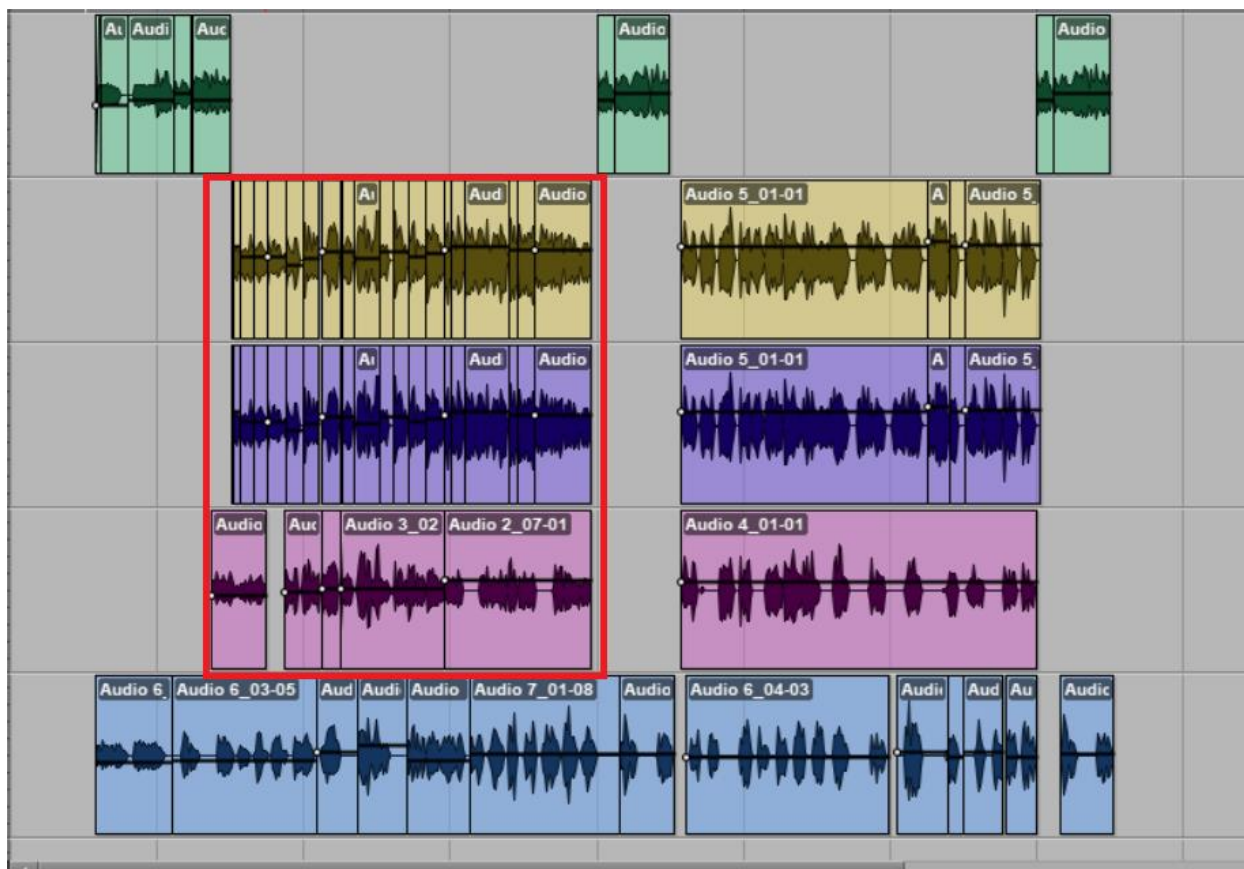
Governing their composition practices with reverb, engineers had to be as sensitive to the space that a given reverb took as they were to the time that a given reverb could exist within that space. That is, if left unchecked, the reverb could layer on top of an original vocal in such a way that it would suffocate the output of that vocal track. In order to alleviate this crowding of the original vocal, engineers would use the "pre-delay" option on the reverb plug-in. The pre-delay allowed engineers to extend or close the distance of time that a reverb, giving the illusion of

with the delay one can create timed and very specific echoes whereas with the reverb the echo would remain consistent across a track. For example, in Messi's "[untitled ii](#)," one can clearly hear the distinction between echo and reverb. In his verses, in particular, Messi uses a lot of reverb that covers the space between much of his vocal track effectively creating the disposition of a dominating presence on his track. The reverb in these locations also apply a pre-delay that allows Messi to push the reverb back on track so as to not crowd the original vocals. This reverb is used in conjunction with the h-delay here which is applied specifically at the beginning and end of the track. Whereas at the beginning of the track applies an h-delay to create a very specific timed echo on the term "god," at the end of the track, Messi not only applies a delay on a specific part of the track, but he also "pans" the audio between his audio output. "Panning" could be understood as moving sound from throughout a multi-sound channel field. In Messi's case, rather than having the timed echo register equally on both sides of the audio output devices, the sound wave starts on the left output channel and echoes out in the right output channel. The timed echo works in conjunction with his track as a whole as the "echo" effectively punctuates his final lyrics and fades out toward the conclusion of the track as a whole. In this way, thus, the engineers distinguished the elastic principles of their sonic literate practices as such: whereas reverb predominantly stretch vocals across space, h-delay predominantly stretched vocals within specific time frames, though one always needed to consider the way that the plug-ins changed the output of a modified vocal track.

Learning to delay sound became as essential to these engineer's mixing process as the movement of sound itself. Rather than have all sound travel equally through the output chambers, for example, engineers would use an option in the h-delay plug-in to disperse sound known as "ping-pong." Ping-pong allowed rappers to pan the output of a sound between output

channels. Therefore, rather than having each reproduced sound layered on top of one another, engineers would have the delay move between speakers or headphones so as a method to not simply layer their sounds but to add range to the sound as well. One can hear this effect on ad-libs to Re@l's "[Whose Up?](#)" (effect highlighted in red below). Ping-ponging sound worked similarly to the "pre-delay setting" in the reverb plug-in as rappers needed to adjust the setting to account for the duration of each reproduced sound and the speed at which that particular sound would reproduce. In "Whose Up?," Re@l focuses on two knobs in particular: the delay and feedback knob. First, Re@l created a time delay of $\frac{1}{8}$ note echo as a lower setting would not produce any audible echo (such as $\frac{1}{64}$ note echo) and medium settings would produce an audible echo that overwhelmed the original vocals track. Re@l then used the feedback knob to repeat the echo opting for the echo to repeat at 85bpm. Re@l opted for this repeated time period as the spaces between his lyrics were not excessive and a large repeat time would simply cause one delay to crash into another and too little feedback would not register any audible repetition. With his parameters set, Re@l simply pressed the "ping pong" button to make the delay echoes repeat at different times on the left and right output channels. Thus, in developing their literate practices for creating with sound, engineers had to learn not only how to stretch sound within a vocal track, but how to move sound using the affordance of plug-ins such as the ping-pong button on the h-delay.

order to apply reverb on his verse (highlighted in red below). Yet, rather than simply apply the reverb equally across the verse, he uses the “automation” tool to distribute the reverb across the track to fit his desired preferences. When using the automation tool, a single line would run through the middle of the track. And just as others would, Shakey would simply move the single line up at specific spots to achieve the desired reverb input he wanted on a particular instance within each track. Automation served as an in-depth editing process where engineers could manually adjust how special effects modified a track and, at the same time, an opportunity for engineers to surgically enhance specific volumes within their track. The process of applying special effects, then, served to compliment the strategies and skills used while recording and cleaning up vocals and together constituted the overall process for working with sound at the studio.



8. Conclusion

Though writing scholarship has prioritized visual rhetoric and composing with words, I hope to have shown how an engagement with sound literacy -- especially as sound is produced outside of the classroom-- can produce a *process* that facilitates the existing vocabulary and frameworks that help us produce with sound, that is, a set of practices that allow us to understand how to communicate with sound. The engineers at Haven practiced their sonic literacy as much to decode other's practices as they did to structure and restructure their own vocal tracks with their newly accumulated set of literate skills and knowledge. These set of literate practices were not taught in school. These practices and overall process was developed outside of school through a grassroots understanding of Hip Hop and the necessity of becoming a more comprehensive artist that was as sensitive to the conventions that organized their alphabetic writing as they were to the conventions that organized their sonic literacies. In doing so, rappers slipped between the roles of wordsmiths and sound engineers as they cultivated new skills as a sound engineer at Haven. The mixing process at the studio was, thus, specifically cultivated by a group of individuals socialized into Hip Hop culture whose knowledge manifested through a series of skills and practices shared amongst Haven engineers.

I would like to close this essay by returning to considerations for developing an integrated approach to sound design and analysis that takes into account the context of our culturally diverse societies that create meaning by using a range of multimedia technologies. Like alphabetic print literacy, sonic literacy does not operate as a set of universal skills that can be taught in school. Sonic literacy is multiple, plural, and exists within the "context of our culturally and linguistically diverse and increasingly globalized societies" (London Group 1996). And sonic literacy as practiced by and for Black community members is often overlooked--but

their context/domains/ experiences/meaning making practices are crucial to a rigorous understanding of sonic literacy. *Sonic Literacies*, then, are cultural practices, with their own unique set of varied techniques to create meaning, that are embedded within specific regional, social, and cultural phenomenon, such as Hip Hop.

I started this essay asking how those socialized into Hip Hop culture compose with sound. To address this question, I expanded McKee's initial framework of composing with sound to include an additional component: 1) vocal manipulation. This component itself houses three interconnected sub-areas 1) recording, 2) cleaning-up, and 3) adding special effects to vocals, a process otherwise known as "mixing." Hip Hop engineers have been and continue to bring a new framework for understanding sonic literacy as we know it. Whether layering multiple vocal tracks, or plug-ins, or stringing together multiple techniques to make best use of those plug-ins, Hip Hop sound engineers offer a vast body of what it means to compose with sound. Writing scholars have only begun to explore the intricate ways that individuals compose with sound. The voices, experiences, and work of Black sound engineers is important not simply as it speaks back to white centric-focuses of sonic literacies but how it centers and legitimizes Black cultural ways of knowing and being. And what I have provided here simply scratches the surface on the ways that Hip Hop engineers in particular work with sound. There are a number of other factors that remain unexplored and have to be taken into account such as plug-in chains, routing preferences, mixing with multi-track instrumentals, audio referencing, real time automation, testing delivery mediums, and of course mastering audio tracks as well. It is my hope that the framework I have presented here will serve as a catalyst for developing a more expansive understanding of how sound works in the margins. And, above all, lead others to actually create with this framework. In the end, much like the focusing on the multimodal

practices of marginalized groups provided composition scholars with an avenue to challenge traditional notions of literacy of the past, so too does the focus on sound provide scholars with a similar opportunity to rethink and expand their notion of sound literacies in the present.

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Table 1. Haven Studio Participants	
Messi	22
Mo	23
Shawn	21
Dai	21
C.A.M.	30
Ridley Victoria	25
Re@L	21
Tuesday	20
Tae Mula	21
Ghee Ikeo	22
F.A.B.L.E.	21
Retro Keyz	26
Shakey	23
Prophet	24
SPZY	23
Jinzo	22
Brax ACE	22
Note. Names in bold are the primary participants of this study. All names are pseudonyms.	

What it takes to make Hip Hop Music in a Pandemic: Design Literacies in Hip Hop Makerspaces

To be submitted to Urban Education

Andrew Davies and I once had a discussion about developing a journal for Haven Studios to document all the dope shit that was happening at the studio -- the pedagogy, the practices, process, ideologies, etc. He told me, if we ever engaged in this project he would want two things: “I don’t want us to be seen as victims or at-risk and I don’t want us to be seen as special either cause the stuff we doin down here is happening all over the city.” Then, the pandemic hit. At first, some rappers at Haven struggled to find outlets to create music. But, over the span of a couple of months, recording studios started to rise across the Southside -- from Bronzeville to East Chattam and Englewood, rappers were developing their own home studios. And they were outfitting these studios with the hardware and software that they needed to create music. That being said, not everyone from Haven built studios during this time, and in fact some rappers had even started to build their studios before the pandemic hit. However, by the end of 2020, I could mark the address of all the studios on a map, and from an overhead view, the Southside of Chicago looked like a garden, blooming with recording studios.

Haven was one of the many communities that was struck hard by the 2020 COVID-19 pandemic. More than any other phenomenon, the pandemic forced people to reckon with the uncomfortable realities of systemic racism, a collapsing economy, dubious leadership and how to attend to community health and well-being during these strange times. And as institutional, local, and educational resources were forced to close down due to increased infection and death rates,

people across the world organized to supply their communities with the resources they needed through these unprecedented times. In Chicago, in particular, organizations such as Healthy Hood worked to supply families with corona vaccines and meals to those with food insecurities; the Mural Movement financed the work of local artist so that they may continue to paint murals across the city; and My Block, My Hood, My City worked to pick up litter, cut overgrowth in local Chicago neighborhoods, distributing resources to senior citizens, and providing seasonal events for their communities. The self-organized effort people have put into to attend to their communities needs, efforts deployed even prior to the pandemic, has exposed punctures in institutional support for marginalized communities and practices such as those found in Hip Hop. And yet, at the same time, it has opened up a space for those invested in the development and susatinment of Hip Hop to develop spaces to support such practice and practitioners. Given this context, one might ask: what does it take to make Hip Hop music in a pandemic?

In what follows, I would like to explore the literate and rhetorical acts of Black rappers as they navigate a pandemic to develop Hip Hop music. I argue that rappers develop writing ecologies as a way to sustain their and their communities desired modes of literacy. Specifically, in order to develop their own music studios, rappers developed a series of complex multimodal and digital writing practices that actively engaged in changing an environment. However, in the midst of a music industry that held hostage the literacy resources and support systems necessary to record raps, rappers also developed a “sharing economy” as a way to mobilize and monetize their literacy practices. In doing so, rappers were able to obtain such resources and cultivate such services necessary for producing Hip Hop music. Their literacy practices can thus be understood as a protest against larger understandings of property and a bid for the redistribution of property from those who would otherwise hold such property behind economic gates. These findings hold

implications for not only the way we support the varying literacies that already circulate on college campuses, but larger implications for how such tactics can teach us how sharing economies become a part of the complex process known as access and the way we understand access in higher education.

Literature Review: Who makes the makerspaces and why not us?

Makerspaces have increasingly appeared in a broad range of spaces and places categorized under the education umbrella. In “The Maker Movement in Education,” Halverson and Sheridan (2014) defined makerspaces as “communities of practice” (pg. 496) that are “engaged in the creative production of artifacts in their daily lives and who find physical and digital forums to share their processes and products with others” (pg. 496). Found in curriculum-based education and informal learning environments such as public libraries and non-profits, maker spaces provide students with the opportunity to acquire skills in STEM, arts, and design. Citing the work of Kafai, Fields, and Searle (2014), Halverson and Sheridan insist that maker spaces play “an important role in diversifying the maker movement by making tools, materials, and processes more readily available to people who may not initially self-identify as makers” (pg. 499). And, by the same token, makerspaces also provide scholars with an opportunity to explore the potential benefits of teaching youth how to create, or design, products in these spaces (Christensen et al. 2019). Understanding the relationship between community and the context of institutions has effectively become integral to the success of makerspaces and how to most effectively make use of such spaces.

The rising interest in makerspaces has developed in tandem with an additional subject of study within Composition and Rhetoric known as “design.” James Purdy (2014) underscored how scholars in the field have used the term “design” to refer to a variety of things such as 1)

structure, 2) multimodal composing, 3) digital composing, 4) material composition, and 5) to investigate discipline and disciplinary limits of design within composition studies. In an effort to provide a more refined understanding of the term, scholars (Sheridan and Roswell 2010, Christensen et al. 2019) have used the term “design literacies” to refer to the repertoires of knowledge and practices necessary to engage with artifacts in a complex social context. These repertoires of knowledge necessary for design is what scholars refer to as “design thinking.” In other words, design and design thinking can be thought about as two sides of the same coin; “design thinking” as the *frameworks* for making products while “design” can be thought of as the *practices* one applies when making a product. Design practices and design thinking, thus, become integral to the development of a person’s meaning making processes in different spaces.

The possibility of makerspaces as dynamic design and meaning making sites that encourage new forms of learning, literacy, and knowledge production has encouraged scholars to consider the diversity of places where makerspaces. In particular, scholars have worked to investigate how paying attention to Hip Hop makerspaces can change how we understand and teach literacy. For example, Austin et al. (2010) reported on the makerspace at Chicago’s Harold Washington Library known as YOUmedia where rappers could attend and develop their skills with digital media. In their article, they detailed the creation and intention of this space and examined how students learned with each other through “interest-driven activities” including performance and production of Hip Hop music (pg. 14). Similarly, Turner (2012) reported on a makerspace in California known as Fanon Middle School and how students and faculty alike used Hip Hop to advance a social justice agenda. Through the critique and creation of Hip Hop products, students at this makerspace provided students with “an avenue to participate in their own socially, culturally, historically, and politically situated practices that may have been

unavailable in previous curricular frameworks” (pg. 504). Makerspaces that attended to Hip Hop design and design practices, thus, provided students with culturally relevant pedagogy that sustain cultural practices and facilitate students' existing knowledge in using advanced digital and multimodal technologies.

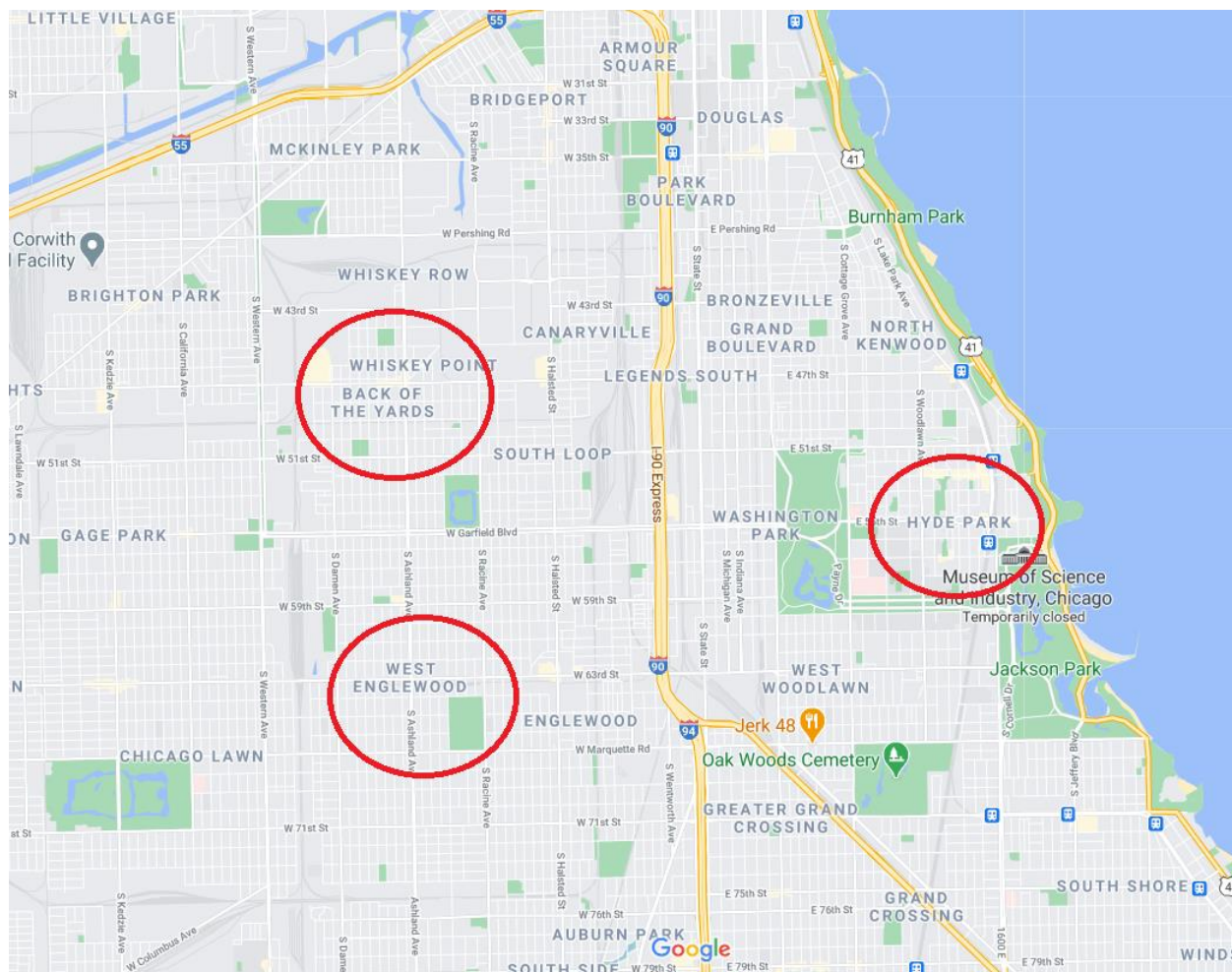
Makerspaces have become particularly popular across educational sites for their potential to democratize discourses of power, provide students with access and training to modern digital technologies, and essentially operate as community-based projects. Makerspaces as community based projects thus are calculated initiatives by institutions to help expand how people think about and engage with digital technologies and the world around them. However, as Halverson and Sheridan (2014) make note “we have also seen how identities of participation have already been constrained by early adopter voices” (pg. 500). The restriction of access or existence of makerspaces within cities and colleges can, in other words, be understood as part of what Omi and Winant refer to as a “racial project.” That is, for them, race ain’t an inherent quality of an entity such as a human, institution, or even writing practice. Rather, race is attached to such entities over time and on multiple levels including some and excluding others from participation. And as I have detailed elsewhere (Castillo and Kim 2019), literacy education is a raced and racializing process within the education system. Following the work of such literacy scholars as Gloria Ladson-Billings (2003) and Catherine Pendergrast (2004), I detailed how literacy is (unjustly) treated as a “white property” (Ladson-Billings 2003) and a “white property right” (Prendergast 2004), belonging to whites and systematically withheld from racially marginalized Others, perpetuating racial educational inequality (Castillo and Kim 2020). Makerspaces and their creators thus participate in this larger race-based society that can either actively work against white supremacy or perpetuates it -- whether intentionally or not.

I would like to extend the current work on Hip Hop makerspaces by examining how makerspaces develop in one community space. Current research has explored how makerspaces develop both in formal and informal educational settings such as museums, libraries, and nonprofits. And while they explore the theoretical underpinnings of how to develop and teach in the makerspace, what remains less explored is the material realities that go into such development. That is, the process by which the designers of the makerspace obtained the space, technology, and perhaps money to finance and sustain such ventures in addition to the racialized structures that make spaces more easily attainable to some than others. The exploration of makerspaces in current literature then obscures the process by which the makerspace develops, making them appear as though they already exist apropos of nothing. I want to contribute to this conversation by examining how rappers make makerspaces from the ground up and how they maintain those spaces in their community. In this essay, I would also like to extend my joint analysis in “Writing as a Racialized Practice” to understand literacy outside the school context and witness not just the racialization of literacy holds material implications for literacy practices such as thus found in Hip Hop culture, but to underscore the agency and practices that people, other than teachers, exercise to resist such oppressive power.

Participants and Methods

Participants in this study are members of a nonprofit recording studio on the Southside of Chicago known as Haven Studios. I gained access to this group through my participation in an additional youth literary arts organization known as Young Chicago Authors (YCA). At YCA, I met Andrew Davies, who invited me to participate in his studio. While at Haven, I met additional rappers that attended YCA including Prophet, Re@1, C.A.M., and BraxAce. And while recording music at Haven, rappers from YCA introduced me to other members of the

community including F.A.B.L.E., Messi, and Shakey. For this qualitative study, I recruited rappers through a snowball sampling process. Recruitment was purposefully small scale as I sought to elicit information-rich cases on studio design. And while most members at Haven depended on the studio to record and mix their music, there was a group of individuals who had taken the initiative to design their own studios: F.A.B.L.E., Messi, and Shakey.



(Figure 1)

At this study's onset (Fall 2018), F.A.B.L.E., Messi, and Shakey were still making use of Haven as their central recording studio. By the study's close (Fall 2020), each of these rappers had designed their own studios and/or had been employed by a local recording studio on the Southside of Chicago. Messi, F.A.B.L.E., and Shakey are all males in their early 20's, and each

identified as Black/African American. They all grew up on the Southside of Chicago, but lived in different areas of the Southside including Hyde Park, West Englewood and Back of the Yards (See Figure 1). They performed, wrote, and recorded music with each other prior to the COVID-19 pandemic. And they continued to collaborate on music during the COVID-19 pandemic by collaborative online performances, at home visits, and by sharing and mixing songs that they shared with each other online.

Data gathering consisted of participant observation at Haven, in their home studio, as well as interviews. The interviews were open-ended and began with questions about music, what they listened to, and then moving on to questions concerning studio set-up, supplies, and operations. Another strand of questions dealt with background including ethnicity, neighborhood, school, social life, work life and studio use. Most weeks involved about four hours of interactions with participants. I kept ethnographic field notes during each studio session and during their ventures on the web and in their studio homes. I use field notes to identify the literacy practices of these rappers as well as their literacy goals for such practices. Some of the goals I have identified include changing spaces, community survival, equity, profit and anonymity. Below I detail how rappers writing practices facilitated these goals.

Positionality

In the course of working with these rappers I experienced a sense of being both a member of this larger network and a stranger to this network. This sense of being both of and outside of this network of Hip Hop creators stemmed from my own experience living in Chicago, identifying as a person of color, and creating Hip Hop music myself. As a result, I consistently felt support from other rappers who were struggling to create their own studios, who were trying to get their hands on beats, and collaborating with other artists. And I too fed the network. As I

worked to create my own home studio, I provided artists with rides to get supplies, with money to buy recording equipment, and with digital hardware and software that I had purchased or found on sale online. The Haven family and I could lean on one another as we established this larger network of recording studios.

And yet, even amongst this network, I could feel my distance from other rappers. As rappers started to build smaller collectives, for example, my presence inside studio spaces would be put into question. For example, I would be invited to a studio session by one rapper, however, another member would approach me to let me know that a particular recording session was just for the members of the collective. I was not always welcomed to participate though I would be welcomed to stay in those recording sessions. My role as a scholar and rapper would conflict as rapper's generously negotiated their own spaces with me as a scholar, understanding my scholarship and insisting that they would be happy to "help [me] finish my dissertation," but not as a rapper or vice versa.

My positionality as Mexican-American also informed my interaction with other rappers. For example, though some rappers would at times consider me a part of the group, and as a result give me permission to use the "N" word, I would respectfully decline gesturing, first, to the notion that I was not Black and had no historical precedent for its use, and two, I would prefer to refer to them by their rapper names. I also had to navigate my own biases about the Southside of Chicago, as during my first set of travels, I felt an unconscious insecurity, particularly at night -- informed in part because of my inexperience in the Southside, but also in part by racist narratives I had internalized about the Southside of Chicago. As a Mexican American from the Northside of Chicago, my security on the Black Southside of Chicago thus developed through exposure and

participation, as I came to learn more about the Black communities in the Southside of Chicago from and with my participants and friends.

The trust I developed with the members at Haven thus developed out of my consistent participation and contribution to the development of this larger studio network on the Southside of Chicago. And though very much a part of this network, I depended on the narratives, voices, and experience from the members of Haven in order to effectively describe their specific social, cultural, and material experiences and role in creation of this larger network of studios as those experiences deferred from mine in terms of age, race, student status, and geographic location.

Making a Home Studio: What is Needed and How to Get it

Rappers indicated a list of items that they felt as necessary for developing their music, a list that could basically be broken down into two broad categories: 1) hardware and 2) software. In terms of hardware, rappers often insisted on the need for a microphone, audio interface, a computer, headphones, and the necessary wires to connect each of the above components. And in terms of software, they needed some type of audio workstation with Pro-Tools being their preferred choice as it was the software that they used at Haven Studios. Outside of this particular set of hardware and software, rappers indicated that they needed a room or some sort of space to call their own where they could produce music. So, hardware, software, space, these were the materials that rappers needed to even begin to produce music.

Rappers could obtain both hardware and software products through various legal means. Of course, rappers could pay for these materials. There were both local and high end music stores such as *Guitar Center* that offered much of the necessary hardware and also offered access to physical disk drives to install the necessary recording software at their home. To earn their income, many of the rappers I worked with worked service jobs such as working for UPS or

FedEx or at local restaurants. And they could earn their money through those occupations in order to purchase the necessary studio equipment they needed for their studios. Yet working these jobs did not pay well enough to purchase all the expensive, and necessary equipment for recording, let alone an entire computer set. Therefore, an additional way that rappers gain access to hardware and software was through local pawn shops. As one rapper described it, “pawn shops are the graveyards of would-be rappers.” At the pawnshop, rappers could purchase the necessary recording equipment such as microphones and interfaces that they needed to record and mix music, as others who had failed to successfully create music would deposit their used equipment at these locations in exchange for money to live their lives outside of the creative music-making scene. And though cheaper than high end music stores, pawn shops could not consistently guarantee the recording equipment stock nor the quality of such stock. In short, the central way that rappers legally obtained their equipment was by buying what they needed from local distributors.

On the Southside: An Overview of the Limits and Affordances of Recording Studios

As gestured to in the above section, access to recording equipment proved to be a challenging endeavor for rappers on the Southside of Chicago. And rapper’s equally struggled for space to record and make music. That is not to say that there were not spaces available to them in the city. During their highschool years, for example, rappers had access to a digital learning space available to them through the Chicago Public Library system known as YOUmedia. At YOUmedia, rappers could make use of the digital recording software and hardware during their highschool years. And they could even participate in workshops that instructed them on how to use recording software such as Garageband or Pro-Tools. However, once they graduated high school, rappers were given limited access to recording equipment in

the makerspace in an effort to prioritize its use to high school students in particular. And even during their highschool years, rappers found that recording at YOUmedia could be a challenge due to its distance from their home, scheduling conflict with multiple attendees, and limited recording booths. And though YOUmedia did offer select and specialized workshops on how to use the software in the studio, rappers would need to make sure that they attended that single session, risking recording time, and finding the information to be simultaneously basic and overwhelming. So, distance, space, time, training, in addition to age restriction prevented rappers from making the most use of the tools at YOUmedia.

With limited access to the recording hardware at YOUmedia, certain rappers turned to professional recording studios as a makerspace to record and engineer their music. However, as rappers soon found out, agency and access to digital technologies within recording studios were as limiting as those at YOUmedia. For one, rappers needed to pay for studio time, which meant that they had to clear a money wall before they could record their music. Second, rappers could record their music, but did not have complete control on how to edit their sound behind the computer, as the sound engineer would be the only person who had central authority over the mixing process while in the studio. And in addition to money and limited control over their music making process, rappers discussed additional limitations to recording at the studio. Rappers discussed how even when they did pay for engineers to record their songs, engineers would at times deliver sub-par that did not take into consideration that artists input or sounded like an unedited copy of the original recording. And though some studio managers would help correct dissatisfactory mixes, some would not revise mixes without additional pay. Sub-par mixes, resulting from ineffective communication between rapper and engineer, would cost rappers both time and money to revise such edits and develop a strain between artist and

engineer. So, though an available option, for-profit recording studios did not provide rappers with the resources they needed to experiment and develop their craft.

Ultimately, the limitations that rappers experience in for-profit recording studios were only exacerbated online. As software distributors such as Avid and Adobe Audition marketed their products (Pro-Tools and Adobe Audition) as services with monthly payments, rappers were forced into an economic stranglehold from two economic institutions (recording studio and software distributors) that preyed on these rappers' limited income. Thus, due to time, income, or limited control over their meaning making process, rappers who already graduated highschool would often develop a desire to create their own studios.

Space and Sound: A Multimodal Approach to Setting-up Home Studios

With limited access to writing technology (Haas 1996) for their desired literacy practices in their communities, rappers turned to designing their own at home studios. From wordsmiths, to audio engineers, rappers also took on the role of studio designers. In this role, rappers had to shift from composing with words and sounds to composing with space and sound. In their respective studios, they learned to edit sound in particular spaces and edit spaces to develop particular sounds. Composition and Rhetoric scholars have worked to understand how the design of a space (Wysocki 2005, Comber and Nixon 2008) can work to inform the diverse production of literacy artifacts and knowledge in such locations such as those found in sonic literacies (VanKooten 2011, Ceraso 2014, 2018, Ceraso and Ahern 2015). Yet a strong emphasis on literacy products in makerspaces rather than literacy processes -- indeed, design processes (Purdy 2015) -- has erased the literacy product/spaces historical process of creation and the dependent relations that make such entities possible to exist in the first place. Below I focus on the preliminary process for developing a studio by focusing on F.A.B.L.E., Messi, and Shakey's

spatial and sonic literacies. What their processes demonstrate are ingenious multimodal methods for attending to space as a central mode in their composition. Rather than work within the given constraints of an environment, these rappers show us how their practices demand they become as effective editors of space as they are editors of words and sounds.

When designing their at home studios, rappers focused on space. The consideration of the social production of space has in turn been labeled as a “socio-spatial” approach to literacy. Spatial approaches to literacy, then, understand space and literacy practices as socially produced alongside the organization and meaning of those spaces (Comber and Nixon 2008). And for these rappers, studio design was often predicated on their relationship between the environment, their understanding of sound and what they themselves, as authors of this space, understood as the central purpose of the space. And all these steps existed prior to inviting other artists into their studios and collaborating with them to develop music. Spending time at Haven, rappers knew how an environment should sound and how they wanted it to sound. These designers' approach extends Anne Wysocki's (2005) concept of “unavailable design,” as they work to question not just how to use words and images in relation to space on paper (pg. 56) but how to use words and sound in relation to physical space in an environment. But when stepping into new environments -- namely their own home-- rappers needed to analyze and figure out the acoustics of the room. Put simply, acoustics refers to the properties or qualities of a room or building that determine how sound is transmitted in it. However, not all rooms are going to work the same way or have the same acoustics so rappers could not just make blind assumptions about the room they preferred to have as their studio space. So rappers developed their music studios through a series of calculated practices and processes. Below I focus on F.A.B.L.E., Messi, and Shakey's studio development practices and processes.

First, I would like to focus on Messi's process for designing his studio. Messi already had his studio set up when I met him. And during our interviews he detailed to me his processes for designing his studio. In order to do so, he walked me to his living room and clapped his hands in a corner of the room. "Do you hear that?" he ask me, "can you hear the reverb?" Messi told me that this was the "clap test." The clap test was an embodied practice that allowed Messi to assess the acoustics of a particular room. "There are things about particular rooms that just ain't gonna work. Like if the room got some windows, or thin walls, or its near the street, it ain't gonna work. There is too much noise comin through." Malki's "clap test" extends contemporary our understanding of what Steph Ceraso and Kati Ahren (2015) refers to as "Embodied Soundscape Design," as Messi's interest in developing a soundscape in his studio did include the mixing of music, speech, and nonverbal sound. But his soundspace necessitated particular acoustics so as to effectively transfer from physical room to online editing software. The focus on sound then was, thus, not only to change how sound traveled in a room but across from physical to digital spaces, changing those spaces rather than just the sounds produced in those spaces. He also took me to his studio and clapped his hands in a corner of the room. "You see this room got good walls and its in the middle of the crib. There's no windows. It ain't by the street or nothing." But even then, Messi insisted that a good room doesn't have all good corners. "When you wanna record, you want the least amount of reverberation going into your microphone. So you tryna find the corner with the least reverb -- even a good room like this." He walked me through each of his corners clapping his hand and immediately highlighting the reverb and how long it lasted in the air -- a multimodal listening (Ceraso 2014) practice that Messi had clearly refined as those reverbs were fleeting and ephemeral. He then pointed me to where his microphone was set up. "See I picked this spot causes its furthest away from the shared wall, and plus, its also next to a room hardly

anyone use that, so the reverb help that its not near any windows, and it shares a wall with a room that ain't ever used." Messi's experience draws attention to the environmental dimensions of sound that are often neglected in the scholarship on sonic literacies (VanKooten 2011, Ahren 2013, Ceraso 2014). Before even getting to compose music inside his environment, Messi needed to pay deliberate attention to sounds that existed inside of rooms and outside of those rooms too. In doing so, sonic composition did not start at the design of the text but on the design of the space in which that text was composed. Messi's process for designing a studio, then, began with an assessment of his environment not taking it as is, but identifying its characteristics so he could manipulate it and edit it later on.



(Figure 2)

Messi assessed his room, a physical environment, with the aim of changing its internal qualities. Messi's studio was in a master room on the first floor of his apartment (See Figure 2). And he explained how his father had allowed him to make use of this space both as a bedroom and for his creative endeavours. Messi explained to me how he was unable to invest in sound clouds and panels, materials that could help temper the noise in a room, due to their small size and high price. Without some sort of tempering, however, he explained that the room still was

susceptible to unwanted noise from the shared wall space. So as a substitute for sound clouds and panels, Messi added Black acoustical drapes around the entire exterior of his studio room. “This is a cheaper option for me,” Messi explained. “See if you buy like sound clouds or panels, you kinda gotta know where to place em, cause like there are areas in a wall that reverberate more sound than others. The drapes is an easy way to soundproof the entire room.” This idea of acoustic engineers deliberately designing sonic experiences that help sell their products -- or, in this case, services -- echoes Ceraso’s (2018) own investigation of acoustic designers who develop cars.

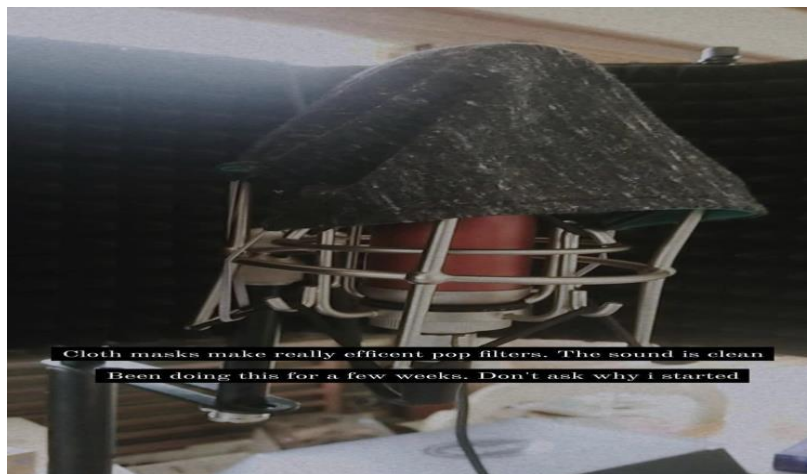
Messi’s experience, however, demonstrates how working-class acoustic designers must develop their own space without the luxury of sponsorship from large economic institutions. Messi’s inexperience with acoustical treatment allowed him to use the drapes as a method to broadly rather than surgically attend to the acoustics of a room, effectively reshaping the sound dynamics in that room. His approach to spatial editing was also underscored by an intentional process of takeaway sound through the inclusion of tempering acoustic materials. Thus, Messi’s approach effectively allowed him to “heighten [his] sensitivity to the functions, effects, affects, constraints, and possibilities of sound in a variety of settings” when developing his own recording studio (Ceraso 2018, p. 70). Messi’s design process then was as much an economical choice as it was a rhetorical choice of how to attend to the noise in a given room.

Whereas Messi was fortunate enough to have his father provide for him a master room for him to use as his studio space, F.A.B.L.E. on the other hand did not have the option of creating in his own home. F.A.B.L.E. lived with his father, elderly grandfather, and uncle in the same house. As such, there just did not exist enough physical space for him to set up a home studio in the house. So, instead, F.A.B.L.E. set up his studio in the basement of his girlfriend’s

apartment. He explained, “during quarantine, I started recording at Cece’s place in the basement. We didn’t really have a lot of rooms to choose from and the laundry was there so we couldn’t record when the laundry was on,” he laughed. Despite its shortcomings, F.A.B.L.E. explained how the basement was the ideal location to record as it had little foot traffic, and commented on the material of the walls: “its made out of brick and cement. There ain’t no noise gettin through that.” Both Messi and F.A.B.L.E.’s studio design process brought attention to the materials necessary for designing with sound. Here writing technologies (Haas 1996) included cement and brick not to accentuate sound, but to control and minimize sound. Such an understanding of sound design extends Jamees Purdy’s (2014) model of design thinking and the writing process to include “editing down” in the test/revision process. Whereas writing and design is often thought of as practice of creation, F.A.B.L.E.’s experience underscores how both are as much informed by the process of omission. Despite his limited selection of rooms, the insulation in the attic walls allowed F.A.B.L.E. to avoid an economic expense necessary to provide the space with an acoustic treatment to reduce external sound expense necessary to provide the space with an acoustic treatment to reduce external sound -- that is nothing to say of the economic expense he was able to avoid thanks to his partner providing him with a recording space in the laundry room.

However, F.A.B.L.E. studio space did not come without its own unique acoustic specificities. As gestured towards above, F.A.B.L.E.’s studio was located in the same room as the laundry area. This meant that he had to calculate not only time to record but also calculate spacing for his microphone. F.A.B.L.E.’s microphone as a result was located furthest away from the laundry machine in order to ensure that 1) it “wouldn’t be moved even when not in use,” but also to 2) secure “the corner with least amount of open space near it so there wasn’t any excess reverb.” In order to account for any additional reverb that resulted from noise bounding in the

room, particularly when recording, F.A.B.L.E. told me that he used clothes: “I use a lot of these old clothes and hang em up around me and they act as sound dampers.” In attuning himself to both the material and spatial limitations and affordances in the basement, F.A.B.L.E.’s own design process effectively echoed Ceraso’s (2018) own pedagogical practice of “mapping sound.” However, rather than simply document the difference in sound production based on a given room, F.A.B.L.E. assessed each room to change and take advantage of the room’s affordances. F.A.B.L.E.’s decision to repurpose materials such as clothing to operate as an object to deliver warmth to an object to buffer sound echoes a long tradition of Hip Hop Based literacy practices as described by both Richardson (2006) and Petchauer (2015), and was similarly echoed in other rapper’s studio as well. This effort to repurpose materials when composing with sound, however, did not operate as a form of critique, but operated as a set of practices with the intentional goal of changing one’s environment. Thus, in an effort to control the internal sound of the room, F.A.B.L.E. then needed to use different writing technologies such as clothing and even masks (Figure 3) to edit sound. Coats and thick blankets became sound shields for F.A.B.L.E. and one way for him to manipulate -- indeed, edit -- the internal sound of the basement.



(Figure 3)

Houses became essential for rappers to even develop a room of their own for music making. However, some rappers simply could not record at home because they did not have access to an unused room. Nor would they be able to reach out to their significant others to use their home for such creative endeavours, as the rooms in their partners home would also be fully occupied. Therefore, one such rapper, Shakey, developed his studio within a large recording space. When I first arrived at Shakey studios, I stepped towards what looked like an unused building. No cars were in front, the two windows in the front were all Blacked out, and I saw very little human activity in the area. But once Shakey let me in, the exterior betrayed a lively ecosystem of recording studios and living space for other rappers, engineers to make use of inside the building. Mesmerized by the internal workings of the building, Shakey quickly re-directed me to his studio. These recording studios effectively operated as contemporary hush harbors. As Carmen Kynard has expressed elsewhere, hush harbors existed as “African American sites of resistance that functioned as ‘hidey’ spaces for multiple literacies that were officially banned via institutional and state structures that prohibited African American humanity during slavery” (pg. 32). There was no sign to look up this site. There was no name on any doors. And there were guards when entering this apartment-like building. Shakey’s studio essentially showed an unlikely alliance between economic institutions and counter-publics where economic funds could provide Shakey and his clients with secrecy and security when practicing their desired literacy practices. And as I entered his room a rectangle box made of wood and drywall stood in the center of a Black walled studio with Shakey’s recording equipment on the right hand side corner of the room.



(Figure 4)

Though he had the benefit of having an in-door space to record, Shakey's design process prioritized a nesting principle (See Figure 4). Whereas previous scholarship has focused on collective listening and individual sound composition (Comstock and Hocks 2006, Ahern 2013, Ceraso 2014), Shakey's experience showed how space needed to be negotiated through collaborative listening and composition. "You really do need two rooms," Shakey told me. Like, when you recording someone else, the engineer and the rapper both gotta listen to the track. But, if you don't got a wall between y'all, you gotta turn the speakers down so the sound don't leak into the mic. And you obviously can't have the headphones down in the booth, cause then what the hell is the rapper gonna hear." Whereas Messi and F.A.B.L.E. namely recorded themselves, and thus existed as both rapper and sound engineer within their own spaces, Shakey's music studio needed to account for the collaborative processes of recording both himself and others in

his studio. As such, Shakey could not simply put on acoustical drapes or benefit from self-designed sound shields. In order to edit the sound of a space, Shakey needed to develop an entirely new space within the studio. The distinction between collaborative and collective here meant that individuals had to simultaneously practice two separate roles rather than everyone playing the same role in listening (Ahern 2013) or composing with sound (Comstock and Hocks 2006). As a result, this collaborative dimension of sound composition meant that, when Shakey edited his space, he had to attend to multiple sounds, sounds that would ideally not conflict with one another. Much like Messi and F.A.B.L.E., Shakey was able to achieve this separation in space by using similar tempering tools for sound. As a result, Shakey designed his recording booth with the purpose of collaborative creation versus individual production. And he described how he developed the booth with wood panels, drywall, insulation, and even installed a small window and wired an electrical bulb inside. “It’s all about layers,” he told me, “the more layers you got the harder it is for sound to travel.” So, I asked him about the window. “This the shit they use in the movies.” He was referring to an acoustical window that is used in older theaters to reduce the sound of the projector while the moving was going on. For Shakey, as for Messi and F.A.B.L.E., the acoustic process was as much a set of rhetorical choices as it was a science -- he developed a calculated process for managing sound when around others.

Equipping the Studio: Sharing Writing Products, Practices, and Places

While space was absolutely essential in order to develop music, equally crucial was the necessary equipment needed to record music in that space. F.A.B.L.E., Messi, and Shakey each gained access to space due to relatives or other sponsors of their literacy practices (Brandt 1994). However, when discussing how they and other rappers gained access to their equipment I received a variety of responses that were not exclusively money-based. Yes, there were some

rappers who did accrue money through their jobs in order to purchase equipment such as microphones and interfaces. But, I also heard rumors, for example, of some rappers scheduling recording studio time only to end up robbing the recording studio of their hardware. Or other rappers who went onto the dark web in order to “run numbers” or use stolen credit card information from the dark web. Yet, during my time with the rappers on the Southside of Chicago what I witnessed most was a *sharing economy* that developed in order to help sustain a larger community-driven literacy ecology. As Harrison and Arthur (2019) have argued, sharing economies inform varying hip hop practices “where conceptions of private ownership get forfeited in favor of the public good” such as those found in the art of sampling or tagging on public walls (pg. 11). More than just embedded into their composition practice itself, I found that rappers relied on sharing across writing products, practices, and places with one another in order to produce Hip Hop music. Below I would like to detail the experience of these three rappers and how they used shared-writing-economies in order to build their music studios and facilitate their Hip Hop literacies.



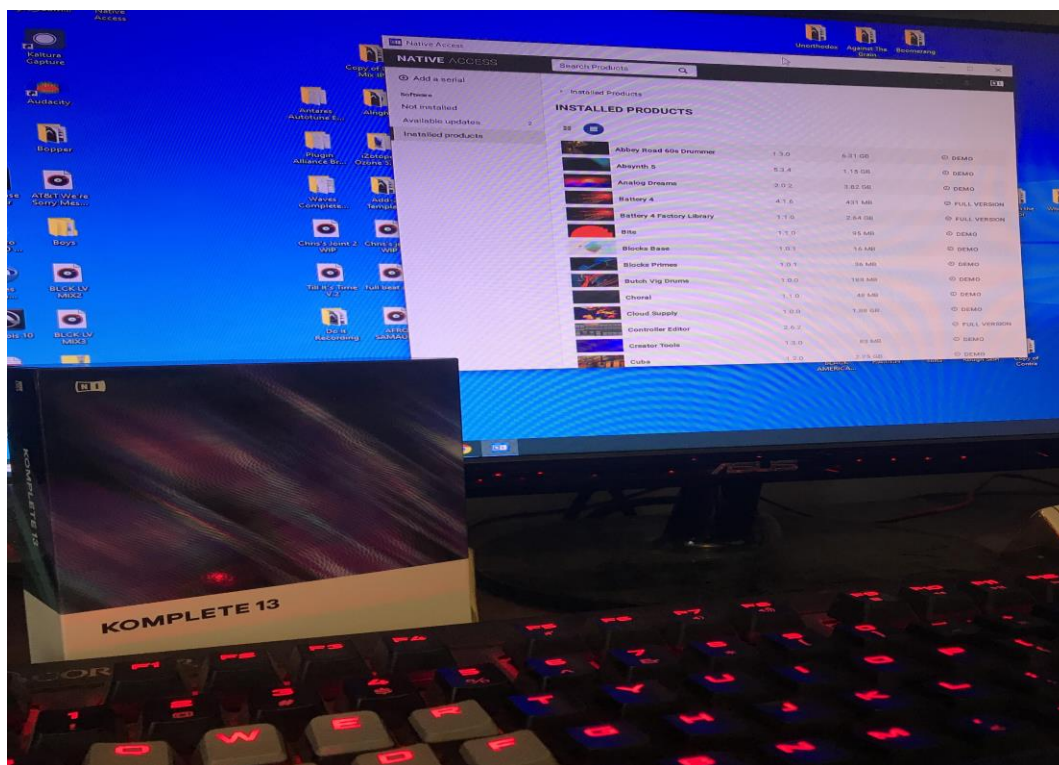
(Figure 5)

Let's start at the end. Due to the COVID-19 pandemic, Andrew Davies was forced to shutdown Haven studios until lockdowns were lifted in the city. And yet, participants still reached out to him via a private group chat inquiring about the studio and when he could reopen it. Unable to immediately facilitate their writing practices through the studio, in December of 2020, Andrew Davies developed an initiative he referred to as the "Audio Interface and Mic Donation Drive." The point of this initiative was to "help the next generation maintain their creative sanity by helping them build their home studios." In other words, Davies wanted to supply his mentees with the writing technologies (Haas 1996) they would need to make their own recording studios -- indeed, makerspaces -- at home, as they did not have access to community institutions -- for profit or nonprofit -- at this time (Halverson and Sheridan 2014). This initiative started out online, and in the course of a week, Davies was approached by multiple industry friends providing him not only with microphones and interfaces, but keyboards, trumpet recorders, and full on DJ sets (See Figure 5). Davies own digital writing practices sparked a cross-generational sharing economy that Davies was already a part of due to his time in the music industry. The COVID pandemic forced Davies then to use writing to facilitate a social rather than generational divide (Rawls and Petchauer 2020). A relational pedagogy emerged that did not have to bridge an ideological view on Hip Hop, for such ideological solidarity was already established at Haven through the groups larger music making practices, but rather bridged and attended to rapper's material needs. Davies was able to act as a "plug" or conduit between generations, providing the industry sponsors with a reliable network of up-and-coming artists who could put these technologies to good use. These grassroots sponsors were later supported through industry sponsors as Davies worked to extend this sharing economy by working with a reputable microphone production company that was also willing to provide

microphones for his mentees. This sharing economy of writing technologies effectively extends Brandt's (1984) notion of literacy sponsors as independent and isolated entities that enable or bar literacy into an entire economy where literacy products are circulated and traded in between sponsors. For Davies and his industry friends, sharing writing technologies not only worked towards sustaining students Hip Hop literacies but also operated a community development project where rappers could create a system of recording studios to share with others, as we shall see in the following section.

The physical writing technologies that Davies was able to provide to his mentees through this sharing economy was only supplemented by the digital writing technologies that he could also provide them. Working with larger Hip Hop producers also provided Davies with the ability to gain access to recording software. In fact, Davies himself was given this software from a producer in the industry. And prior to the pandemic, Davies was more than willing to provide this software to his mentees, helping them install it onto their laptops or desktops at the studio. The significance of these original files was that he did not simply provide them with the software, but provided them with the power to share that software with other people as well. Makerspaces, in this light, took on a new light as something more than just "the creative production of artifacts" (Halverson and Sheridan 2014, pg. 496). Instead, makerspaces became sights of redistributing resources, such as digital programs, that were previously barred to students by private companies. And, as the Pandemic raved on throughout the year, more and more participants at Haven requested the software via the group chat. Like Davies, other Haven participants became plugs for the community -- circulating the necessary software that rappers needed to record with the hardware they had or had just received from Davies. The exchange of these files happened in physical and digital form. For rappers who still lived in Chicago,

participants would install the files into a USB drive and give them the drive for them to share with others as well. And with rappers who had moved out of Chicago, they would upload the files on Google Drive and send them those files via the internet. And, in turn, these rappers would continue to share the files with others in the community. The movement of literacy products in this sharing economy underscored the way that not only literacy practices (Castillo and Kim 2020) but literacy technologies were systematically withheld from this community. Yet, this movement also highlighted the resistant measures of tactics that such communities took on to sustain their practices not as individuals but as a national community.



(Figure 6)

Though access to recording software was made easier to circulate amongst participants due to it already existing within the sharing economy established by Davies, certain producers in the studio had to find ways to gather additional external resources that were not already present in the economy. For example, though Davies had access to certain recording software, he did not

have access to beat making software. And moreover, for producers interested in specialized software, for example, beat making software such as beat packages, producers would rely on each other (See Figure 6). Shakey needed beat packages to create music, but did not have the income to purchase the digital software. As a result, Shakey traded studio time with Messi in exchange for the beat package “Komplete 13.” In order to access the files, producers would share online log-ins to get access to these packages, and then continue to circulate both the digital software and online log-in amongst other producers at Haven. Like professional recording software, most beat making software was put out of reach through a pay wall and treated as services rather than products by their respective companies. Thus rappers would need to pay multiple installments each month just to simply access a product they had already paid for. And again, that is nothing to say of the additional plug-ins that rappers would have to pay to these companies in order to edit their voice. But far from victims to the digital divide, rappers/designers, in the tradition of Hip Hop rhetorical and literary tradition, manipulated (Richardson 2006) and fought against (Johnson 2018) victimization in order to change their position into something advantageous to themselves and their larger community by sharing online log-ins for already purchased software.

The trading of physical and digital products that circulated between the intimate circle of Haven participants online was further supported by the sharing of Hip Hop writing practices and places in the physical world amongst mentees. As gestured towards above, while some rappers had only begun to develop their studios at the end of 2020, other artists had already begun to establish their home studios prior to the pandemic. Yet, each of those home studios operated with different expertise and available recording tools. For example, in Messi’s house, he had all the necessary software to produce beats and record music. And in Shakey’s recording studio, he had

all the equipment to record music but not he did not have the software to produce beats (at least not until the beginning of 2020). And furthermore, while some rappers had expertise in particular writing practices such as audio engineering or beat production, others had the equipment to do both but did not have the expertise as in the case with F.A.B.L.E. In these spaces, we can begin to recognize how marginalized makers are not “constrained by early adopter voices” (Sheridan and Halverson 2014) but rather how they persist despite such marginalization by centering Black/African American practices, products, and places. Makerspaces in this context meant making spaces for makers outside of institutions that already marginalized them and prioritizing those voices by attending to their pedagogical and material needs. Here, in fact, design extended beyond artifacts (Purdy 2014) to designing networks of support with other marginalized figures and using design practices to facilitate such environmental change. Therefore, the ecology of recording studios on the Southside provided space for multiple forms of “writing currency” to circulate -- whether that was the currency of writing products, practices, or places to make music.

The sharing economy ultimately operated out of a foundation of reciprocal wants, needs, and desires between participants. For instance, Shakey and Messi developed a relationship out of Shakey’s desire to work with a producer who could effectively develop beats and Messi out of a desire to share his beats with rappers who could effectively rap over them. Therefore, while Messi could trade his digital products -- i.e. beats, Shakey could trade his own writing and recording practices with Messi. In these exchanges, money was rarely traded. Instead, the necessary writing skills that one desired from one another operated as an equivalent exchange in the sharing economy. Yet, whereas Shakey and Messi found writing practices that they could trade in the economy effectively helping one another out, in other instances the reciprocal exchange was more subtle. For example, in the case of F.A.B.L.E. who wanted to develop his

beat production processes, he would market his skills on the group chat and accept any offers. As he worked to develop his own skills in beat production alone in his home studio, he would further extend his skills by taking on clients in the sharing economy and learning to work within those clients' restricted parameters producing trap beats, boom-bap beats, and working within other Hip Hop subgenres they desired. Here, F.A.B.L.E. exchanged products for opportunities to practice. And still moreover, throughout my experience, I offered my studio as a space for rappers to finish mixing or recording tracks and in exchange they would offer me pedagogy on how to better my own engineering process -- effectively trading places for pedagogy. But just to reiterate, yes, even within this sharing economy, money was a feasible resource for circulation. So, some rappers who could not offer practices, pedagogy, products, or places of/for writing -- either due to expertise, scheduling, desire, or space -- and would simply pay other rappers for other products, pedagogies, or places in the sharing economy. This ecology of recording studios, in short, operated as a direct challenge to structural inequity by nurturing and sustaining a community's way of writing and being through a sharing economy that allowed rappers to rise together like leaves of grass.

Establishing Music Studios: Hip Hop Writing Ecologies Built For Equity and For Profit

As I have detailed in Chapter 2, recording studios became spaces that fostered and cultivated the sonic literacies of rappers, producers, and engineers. And though one studio provided participants with the necessary space, tools, and pedagogy to create Hip Hop Music, multiple studios provided rappers with a network to consistently reinforce their practices. And the rappers I have described above did exactly that. If Haven Studio could be thought about in terms of a writing center, then, the multiple studios that rappers developed across the Southside of Chicago could be thought about as writing center stations that rappers could make use of

outside of Haven. The three rappers I detailed above all lived in separate neighborhoods on the Southside. And as such they were able to attend to the needs of particular rappers in those specific neighborhoods. And as these studios were set-up by participants at Haven, these studios would often serve as alternative recording, producing, and engineering stations when Haven was not open. The participants in each music studio would grow through rapper association, meaning that as one rapper brought in another rapper to work on a project that invited-rapper could then make use of the studio and invite additional trusted friends. And if one studio was unavailable, studio owners could redirect rappers to additional studios that were run by fellow Haven participants on the Southside. And at such studios, rappers would continue to redistribute resources with one another -- namely, digital software, verses, beats, pedagogy, etc. Much as in Landon-Billings (2003) own reflection on literacy as a white property right, in these studio networks, “literacy literally meant survival to Black people” (ix). Survival here meant that rappers did not simply master print-based forms of writing, but they cultivated and sustained digital/multimodal community literacy practices through the establishment of networked institutions. This sharing economy became the first step for additional rappers to set-up their own studios and expand their own networks. And as such, music studios became an industry within an industry, serving as an alternative to economic institutions that exploited Black rappers on the Southside of Chicago.

These studios allowed rappers to not only assist their friends by providing them with the tools they needed for writing, but they also served as a means of entrepreneurship. In their studios, rappers could practice rapping, engineering, and producing music throughout the weeks without worrying for the need to schedule time or worry about access to the tools of production. And as such, they refined their skills by producing beats, lyrics, and songs all on their own. In

doing so, their skills for compositing in multiple forms (beats, lyrics, and mixing) became sought after by other rappers. This exchange of literacy skills and products amongst rappers continues to showcase how “literacy became one of the primary weapons in the modern civil rights movement” (Ladson-Billings 2003, pg. ix). Not only did these rappers have to negotiate their desired literacy in school as I detailed in Chapter 1, but they also had to negotiate their desired literacy practices in the network of established music studios. Literacy, in the Hip Hop world, manifested itself as a property not only as a set of skills, knowledge, and frameworks for composing, but as the actual materials needed for creating Hip Hop music (microphones, interfaces, computers, etc.). And as most of these materials were housed in predominantly white-owned recording studios on the Northside of Chicago the ability to rap, literacy persisted as an “interesting racial battleground” (Ladson-Billings 2003, pg. ix) where rappers needed to simultaneously gain access to the literacy materials needed to rap and then learn how to use them with their community.

And while rappers would collaborate with other artists and develop music for free, they would also charge artists for the various materials necessary to develop music. As Predengergrast (2002) detailed in her own work, literacy exists as a site for racial justice and can be used for dichotomous purposes at the same time. And such was the case amongst rappers, as they used their studio spaces as an alternative to high charging studios in the area, but also leveraged those spaces as a means of economic gain. In this way, rappers charged prospective clients for beats, mixing, lyrics for a song. And rappers developed business deals with prospective clients as well. For instance, when Messi and F.A.B.L.E. first met, Messi “leased” a beat to F.A.B.L.E.. As F.A.B.L.E. was just starting his career as a rapper, he explained it to me like this: “I don’t think this song gonna reach 10,000 streams; it be dope if it did but I’m just starting off. So, it makes

more sense for me to lease this track for Messi for a lower price than to buy it and not see the money in return in streams.” Rappers mobilized their digital multimodal projects -- i.e. their songs -- as a source of income both in a peer-to-peer relationship but also online as they uploaded and made money off of their work on sites such as Spotify and Soundcloud. In this way, rappers shifted what Prendergast (2002) refers to as the “economy of literacy” (6) away from white-owned studios back into Black communities, creating centers that sponsor their own desired literacies while simultaneously using those sites to train rappers on how to use such tools. Thus, these music studios served as a form of social entrepreneurship for rappers as it operated as means of economic profit for them as well as sites to help sponsor others rappers in the intimate circle of the Haven sharing economy.



(Figure 7)

Sharing economies, for these rappers, became a necessary dimension to gain access to the spaces, tools, and instruction necessary to develop as rappers. And with the necessary network in place, rappers were able to develop their own jobs to finance their work and the work of others. Selling their literacy artifacts and services to other rappers and monetizing that money online, rappers found an additional outlet to financially support themselves through their writing. At the end of my data collection, Messi, F.A.B.L.E., and Shakey were all working in separate studios on the Southside of Chicago. As F.A.B.L.E. explained to me in his new studio workspace (See Figure 7), “this studio got it all: up to date software, equipment, and me,” he laughed, “but the only reason I’m here is cause of all the shit I had to do to get here. I mean, now I can bring people over to this studio to record and mix, but I can also do it out of the crib too. Its nice cause I now got the stuff to do this shit.” While developing their literacy and rhetorical skills for making Hip Hop music in their studio homes, they were also able to gain access to jobs that could further support their desired literacy but also pay them to do so. Part of the shift in the “economy of literacy,” in this instance then meant developing *siphons of power* that leveraged resources from the established recording institution. Rappers recognized Hip Hop music as a literacy on the move as it traveled from word to sound, and so too as it moved from rapper, to producer, and engineer. And as a result, rappers would develop metaphorical “holes” in the infrastructure of studios, supplying them with paying clients but then redirecting those clients to their own studios for reduced or pro bono work.

Now on the other side of that industry wall, rappers could continue to help others develop their music as well. As Ladson-Billings explained “To be able to read and write was (and continues to be) about power” (pg. ix). And amongst this community of rappers power was generated by cultivating literacy skills within a particular community. Though not a gated

community, Haven was tight knit. And rightfully so, for to be a part of this community was to gain the privilege to access Hip Hop literacies as a practice, material, creative endeavour, and network of support -- a literacy and literacy approach uncommon in traditional educational settings across the world or even in other sponsoring areas such as recording studios. And equally important, to be a part of Haven was to be part of a community of Black writers, writers who have historically been denied the right to write (Prendergast 2003), and who were currently at the cutting edge of literacy as a digital and multimodal endeavour, mastering literacy practices on hardware and software that are still kept behind lock and key in traditional school settings (if that hardware and software is even physically present at those locations to begin with). As Messi told me, "I'll tell people just to pay for recording time, and not waste their money on mixing cause I can do that at my crib for cheaper. It takes a long time and a lot of money to mix music, and artists should be there through that process. So I do it with them at my crib." Though Messi was still profiting from some clients when mixing their tracks, Messi would also do the work pro bono in exchange for additional materials or services. And even through the pandemic, as I have detailed above, these artists have collaborated with Haven to donate their used audio interfaces and microphones to other artists interested in starting their own music studio. Sharing materials, space, and time from economic institutions was still a part of their ethos when developing music, but it was done so for the purposes of providing access to the tools of music production and contributing to the communities desire to produce music.

Conclusion: Making Space for Hip Hop Maker-Networks

Attending the development of and dynamics in Hip Hop makerspaces -- especially , as they grow in a pandemic -- can provide us with insight to the role of Hip Hop in community development and community engagement. The participants of Haven Studios developed writing

ecologies that ultimately developed out of and served the needs of the community in which they operated in. As I hope to have made clear above, these writing ecologies did not develop in isolated pockets within the city. They were intimately tied to the social and materials conditions that surrounded these rappers. Rappers as a result of and despite these limits became acutely aware of the limits of these spaces encouraging them to identify “space” as an entity they could edit and indeed change. In this way, their homes and local neighborhoods were not immutable entities that defined the artifacts that they could design such spaces. Instead, making spaces for makerspaces became a community project in order to help sustain the desired literacy practices of these rappers. And in this way, the network of recording studios that bloomed on the Southside truly developed out of a local, intergenerational group of individuals that participated in a sharing economy. Technology, space, time, knowledge, services, artifacts, and money all circulated in this economy. And in this sharing economy, each item could be traded for the other. This community initiative was equally about centering marginalized writing practices as it was about mobilizing those practices. For the mentors and mentees at Haven, equity was not simply about improving one’s access to education but also one’s access to material wealth. As such, makerspaces did not simply provide students with the ability to access discourses of power, recording studios as makerspaces allowed them to mobilize their literacy practices for equity and for profit.

My experience with the community of rappers on the Southside of Chicago underscores how we can open up our understanding of makerspaces from isolated spaces to entire networks or ecologies. In the Southside, the network of studios worked to attend to the increasing population of marginalized rappers that operated within the liminal space of a young adult -- too young to attend youth-oriented organizations and not old enough to economically support their

own ventures in studios across the city. At the sametime, however, the network of recording studios also provided an avenue for increased specialization, as rappers could dedicate specific time to the varying aspects of making rap music including oral performance, audio engineering, or beat production. In doing so, the ecologies democratized the production of hip hop music, decentering the necessity for all-around-expertise yet creating a structure for students to learn about and reach out for such expertise. The networks also highlighted the material realities of rappers both in the creation and sustainment of their studios. As rappers developed a room of their own to record, they were bombarded with economic barriers that forced them to mobilize their literacy in ways that could simultaneously benefit their community but also attend to their economic needs. Writing, in these studios, was not just for fun. In a very material sense, it was a way of life and a way to make money for these rappers or as Messi put it “the work is the fun.” The ecology of Haven, in short, operated as a direct challenge to structural inequity that systematically marginalized their desired form of writing. The network of recording studios that developed out of Haven, thus, demonstrate a grassroots initiative to systematically break down institutional racism by centering Hip Hop literacies and communities.

To genuinely attend to the systematic forms of discrimination that legitimize only certain writing histories, practices, and systems of knowing and being -- especially as they are exacerbated by a raving pandemic -- we can no longer simply make space for makerspaces in the academy. Lest we continue to reinforce systems of discrimination that operate outside the academy, we must learn to build our own economies of writing that start off in the community. In the process, we must learn to operate as plugs for the community, conduits that supply and contribute to the community with the writing practices, pedagogies, and products that they want and desire. Literacy, in these terms, can not simply be understood as operating within the

confines of any single space, but must be understood as a mobile and mobilizing entity for community development and sustainment. Community development in the sense that writing becomes a tool with which to facilitate community-based writing practices. And sustainment in the sense that writing helps institutionalize a community's histories, communicative forms and ways of knowing by attending to the social and material conditions that inform the way one navigates their environment. And bringing Hip Hop into the makerspace conversation ultimately has the potential to help us understand the limits of makerspaces as they currently exist, and provide us with alternative frameworks of how we can organize such spaces in ways that attend to marginalized learning, learners, and learning environments.

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Conclusion: Engineering New Hip Hop Futures

“I look at the way our communities are structured. Its like, what other way do you have to express yourself?...we don’t really have as many outlets to actually do this stuff. So the one place we’re able to kind of speak, and we control the narrative where people have to listen for a verse, maybe two -- if we lucky. So it’s like this the one place where we can.”

-Andrew Davies.

During my time at Haven, I asked Andrew about his purpose for developing Haven. In response, Andrew hinted at a pressing concern for the present conditions and future orientation of Hip Hop literacies. Rooted in the inner-city postindustrial experiences of urban youth of color (Rose 1994), Hip Hop has long spoken back to the deficit notion of “at risk youth.” The notion of “at risk” places responsibility for knowledge production -- or lack thereof -- on the individual rather than on the social condition that facilitates or impedes on these literacy practices (Smith and Kannen 2015). However, the combination of oral, technological, and literacy practices performed by these groups demonstrated high intellectual achievement that positioned these rappers as something other than at risk. No, these rappers were not at risk; they were under siege -- they were cut off from essential supplies, tools, knowledge, skills, and instruction. But they persisted. And, more importantly, they succeeded in their goals. They made money. They made relationships. They learned audio engineering, rapping, and production skills and taught others. The participants at Haven worked to negate the often-silent yet ominous myth that Black men lack literacy. They don’t. The experiences of rappers, engineers, and producers at Haven meant

understanding literacy practices not limited to technical or academic functions that privilege only specific types of text formations and groups of people. Instead, the Haven community exists as one space, one community of color, that possesses a rich cultural history of meaning making that *hybrdizes, mixes, and re-designs* the literacies in their environment to work for them and not the other way around.

Haven, then, serves as one example of a community organization that has taken advantage of the technological moment we currently live in. Indeed, Hip Hop-literacies-centered education today is in the midst of a tectonic change. The escalating and rapid development of technology and the access and training for such technology has created a visible moment that Adam Banks refers to as the “multimedia age” (2011). How we choose to take advantage of this moment as Writing Scholars, then, fully depends on the work we choose to put into it now. Questions about Hip Hop-literacies-centered education remain unanswered: how do identity and place influence the effectiveness and outcomes of such learning? How do we effectively prepare teachers to effectively incorporate such an approach to their teaching and learning practices? Open-ended questions like these should be grounded in our understanding of the way that Hip Hop literacies bloom within specific situated contexts that develop in relation to specific social, political, and cultural conditions. These conditions should in turn inform the way that Hip Hop literacies are practiced and taught within those contexts. In looking ahead, how might we work with Hip Hop practitioners and communities to construct ways to resist the reproduction of social stratification through Hip Hop literacies education? Hip Hop is, after all, a culture of creative genius -- so how do we cultivate this genius in our classes and communities going forward?

The participants at Haven have already provided instructors and scholars a theoretical framework with which to move forward in the framework of “engineering.” Engineering exists

as a process of cleaning-up, mixing, and accentuating existing sounds through the use of plug-ins. This blueprint for understanding digital/multimodal Hip Hop literacies follows in line with Hip Hop literacies and rhetorical tradition that began with Tricia Rose. Rose (1999) used the term “flow, layering, and rupture” to describe the composition practices of rappers who freestyled or wrote raps. Rose established a foundation for understanding how maintaining (flow) what came before (layering) in order to effectively break from stale norms (rupture) could exist as a way of critical engagement not only within Hip Hop but largely within contemporary African American cultural production. Whereas Rose’s model laid the foundation for understanding Hip Hop composition as it operated within the practices of rappers in particular, Banks expanded this notion by observing how Hip Hop cultural producers make meaning in the digital age -- specifically through his examination of the DJ. Banks demonstrates how the DJ’s skills and abilities such as “sampling, mixing, and cutting” provide the DJ with the ability to draw from and merge specifically African-American oral and written traditions with technology. Cutting, mixing, and sampling become tools for Hip Hop practitioners to challenge social norms as they continue to build (sampling) on what came before (sampling) and taking what they need (cutting) follows Rose’s model for Hip Hop composition in the multimedia age. Engineering takes what exists and sift through its contents (clean-up), modifies what is unheard and that which is overheard (mix), and then elevates those frequencies that are left unheard (special-effects). In my conclusion to the dissertation, I practice this engineering process and exercise it in written form to consider how we might best conceive of Hip Hop literacies role in education moving forward.

In order to effectively engineer this conclusion, I insert three plug-ins afforded by this written genre: summary, limitations, and future works. First, I briefly summarize what has been

discovered from this study at Haven Studios: I argue that the findings from the previous chapters demonstrate that Hip Hop literacies education allows participants to dismantle, mix, and re-design social practices and the social norm grounded by those practices to persevere through non-ideal circumstances. Based on this community practice of perseverance, and in looking forward to possible futures, I suggest that there's a possibility that we understand Hip Hop literacies as an act of community engagement. This interpretation, I argue, will help reorient the function of Hip Hop literacies not simply as product but as people, practices, and pathways that must be built and sustained through active participation from members in and outside of the academy. Then I describe two possible functions drawn from the experiences of participants that studio builders and scholars in Writing Studies may consider for further research and teaching. First, that Hip Hop literacies operate as a means to actualize social impact. Second, Hip Hop literacies bloom because of specific place-based and population-related constraints. If the first takeaway underscores the necessity of using Hip Hop literacies to enact social change, the second takeaway demonstrates how this social change operates within a specific group and social context. In either case, perseverance serves as a philosophical lens that guides studios that apply a community engaged framework to teaching Hip Hop literacies.

Using Hip Hop literacies as a tool for social impact is a messy process as it requires one's immersion in the socioeconomic, cultural and political constraints of their environment. The two possible functions presented in these last few pages serve as a starting point for changing one's immediate social surrounding rather than simply reproducing or documenting those conditions-- the equivalent of filming a prejudiced attack rather than actively engaging by stepping it to address it. For this reason, a Hip Hop literacies education with a community engaged focus allows for a stronger, collective, response to social inequity and systematic

barriers that profit off the back of Black/African American communities in particular and communities of color in general. Emphasizing perseverance for communities underscores the existing means of agency that these communities have cultivated and maintained despite their social disenfranchisement, and how one may make do and move forward despite these conditions. In thinking towards the implication, I describe the limitations of my study and show that these limitations lay a foundation for further research.

Summary of the Study

The main aim of this dissertation has been to understand how rappers learn to develop their literacy practices, repertoires of knowledge, and ideologies to develop hip hop music. Since Tricia Rose's *Black Noise* (1999) and Murray Forman and Mark Neal's edited collection *That's the Joint!: The Hip-Hop Studies Reader* (2004), scholars have demanded that the academy recognize and take seriously the lyrical, sonic, artistic, embodied, and indeed scholarly rigor of hip hop music and culture as an integral part of Black culture, the African Diaspora and this narrative called America. Such demands recall, and build on, the work of the Black Art Movement (BAM) of the 1970s who offered a vision of multimodal pedagogy that "redefined art to be functional and relevant to the lives of Black people" (Kynard 123). These artists, activists, and academics worked together to challenge racist art institutions and establish alternative art spaces within the academy. The belief that BAM's desired literacies and modes of expression have the right to exist and be supported within the academy effectively changed the discussions around what writing meant and laid the grounds for contemporary scholars to fight for the right to teach hip hop in school.

Now inside the school system itself, the aim of Hip Hop-based-education (HHBE) in the classroom is often to use Hip Hop in the service of some institutional agenda whether that is

teaching students about science (Emdin 2010), how to write (Green 2017), or how to work with multimedia technologies (Jocson 2013). Removed from the streets, Hip Hop has become an object to be picked apart and studied. The linguistic and oral dimensions of hip hop have been given considerable attention (Smitherman 1997, Alim 2006, Morgan 2009). And when applied in the classroom, teachers reproduce this analytical logic in their pedagogy, encouraging their students to analyze and critique Hip Hop in their own written essays or by alternative means to understand school related concepts (Sánchez 2010, Kelley 2013, Hill and Petchauer 2013). The students and instructors, then, become individuals who use hip hop rather than individuals who practice Hip Hop. Hardly, if ever, does the literature signal the use of HHBE in the service of helping individuals develop their knowledge and skills as Hip Hop practitioners.

A fixation with adopting, teaching, and studying Hip Hop within a school context fails to account for the diversity of spaces, teachers, student populations, and pedagogies where HHBE may take place. Given this historical and present issue, this study describes exactly what happens on the streets when HHBE is taken on its own terms. The circumstances of learning how to develop hip hop music results in the following research questions: How are community educators using HHBE as a way to sustain and develop community desired literacies? What are the ways in which these teachers and their students are redefining literacy and what it means to be literate?

To answer these questions, I designed a small-scale qualitative study of six African American adults attending Haven Studios, a Midwestern-based recording studio. Haven Studios is an extension of a non-profit organization whose various educational programs operate as mentorship programs for students that come from disadvantaged backgrounds. To this end, Haven Studios trains adolescents how to produce music, record music, and perform their music.

Haven Studios treats the studio as a community space where students can come in and talk to one another, play games, or work on their music. Students learn how to rap in and outside of the studio on their own and in groups. They also learn to write verses and songs with one another, work on various digital audio workstations including Pro Tools, Fruity Loops, and present at local community shows. Guest speakers also visit to discuss a variety of marketing -, production -, and music-industry-related topics with the rappers. This extensive training can help rappers create hip hop music and even monetize their literacy skills and knowledge.

I collected data through on site visits, once a week, where I spent four hours per day and made observations throughout the year, collecting data in two phases. In phase I, rappers shared their literacy histories with me, detailing their experiences with rap and audio engineering. During phase II, I took detailed field notes during observations, video/audio recorded 6 hours of recording live audio engineering practices and attended two performances. In my study, most weeks involved about one four-hour session with participants, moving from the gaming station to the control room where I have recorded on average one-to-two hours worth of data a day. Usually within an hour of leaving the field, I write field notes from scratch notes and initial jottings. Using video records, I transcribe significant segments of talk, detailing each session in the form of a transcript.

I gained access to this group through my participation in an additional youth literary arts organization known as Young Chicago Authors (YCA). At YCA, I met Andrew Davies, who invited me to participate in his studio. While at Haven, I met additional rappers that attended YCA including Prophet, Re@l, C.A.M., and BraxAce. And while recording music at Haven, rappers from YCA introduced me to other members of the community. As a member of the studio, Andrew expected for me to contribute to the groups overall output. I quickly learned

about my role as a participant in the sustainment and cultivation of these rappers' literacy practices as they helped me and I helped them play the role of rapper and audio engineer. This exchange of roles fostered this mixing of literacy practices, as rappers would rely on one another to execute specific literacy skills when engineering on Pro-Tools or recording in the booth while simultaneously exercising the skills they already knew in each station. Through the process of working with these rappers, I had the privilege of being invited into their homes and see them build their studios sometimes from scratch. Through this ethnographic work I realized how rapper's centered their ways of knowing and being and by circulating Hip Hop literacy practices, products, and spaces amongst a closed community. And though at times I could relate to these rappers along creative lines or even local knowledge, my experience as a non-Black rapper meant that I needed to rely heavily on their experiences, voices, and expertise to detail how Black rappers navigate their social, economic, and material realities to create Hip Hop music on the Southside of Chicago. Haven, as a community-led grassroots initiative, has informed my own work as an ethnographer from simply showcasing work to actively participating in community development in my private life, research, teaching, and administrative work.

The research project I have described in these pages, then, offers an in-depth look at the lives of a few rappers who attended Haven Studios. In Chapter 2, "Hip Hop Composition and Hybridity," Hip Hop life history interviews revealed that in their mobile learning among sites, rappers make contact with, aggregate, develop, fuse, and resist literacy practices, a process I have the author has come to call the "chemistry of rap literacies." This chapter locates rap as a process of chemistry that breaks down and puts together literacies to develop a reforming literacy practice suggesting that scholars work towards understanding how those literacies collide, come together, and take shape with other literacies in and out of academic spaces. Meanwhile, Chapter

3, “Mixing Tracks: Notes toward the analysis and design of vocal manipulation in hip hop music” revealed the sonic literacy practices of hip hop audio engineers. The findings describe how vocal manipulation must be a part of any rhetorical considerations and design of sound and contributes to building a schema for hip hop audio engineering that responds to white-centered focuses on sonic literacies and center Black/African American ways of knowing and communicating with sound. Finally, Chapter 4, “What’s it take to make Hip Hop Music in a Pandemic: Understanding design literacies in Hip Hop makerspaces,” demonstrates how rappers developed a “sharing economy” as a way to mobilize, monetize, and sustain their and their communities literacy practices. This chapter demonstrates the necessity to establish networks of communities that attend to and sustain marginalized writing practices as they already exist in the community. Their practices constitute a necessity to understand how “sharing” becomes a central tenant to accessibility in an educational setting -- whether that is sharing practices, products, or places for writing -- and underscores the way that Black communities use sharing economies as as a protest against larger understandings of literacy as property, and a bid for the redistribution of property from those who would otherwise hold such property behind economic gates

My dissertation makes an update to studies on Hip-hop-based literacies and education by placing a tight focus on the role of Hip Hop literacies on rappers in noninstitutional settings to help facilitate their goals of becoming rappers. The path to developing as a rapper has often been left ambiguous or covered in the guise of the self-made “rags-to-riches” story. But these findings collectively show that throughout their journey, rappers take-up, dis-assemble, and re-assemble individual literacy practices within specific environments to develop their repertoires of knowledge and skills for designing hip hop music. We may draw on such knowledge and personal experiences to revise our understanding of Hip Hop literacies on its own terms by

accounting for the diversity of places, people, pedagogies, and outcomes that may be associated with HHBE. Addressing Hip Hop literacies on its own terms -- and by extension, HHBE -- helps highlight the variable educational and place-related affordances/constraints that teachers may face in their attempts to adopt HHBE. Two functions I consider here are: 1) Hip Hop literacies operate as a bomb and 2) Hip Hop literacies operate as a community of practice. In the next section, I describe in more detail what these two functions may look like in a future HHBE setting -- studio, classroom, or otherwise.

Implications of Hip Hop literacies

Hip Hop literacies as bombs

The literacy skills that the students developed at and across the Haven ecology represents a critique of and action against hegemonic pedagogies and practices that organize in school classrooms. Even in conditions of limited infrastructure and on the periphery of Chicago, Haven studios was used as a site by participants to learn, record, produce, and engineer sound. What these participant's experiences suggest about teaching and learning Hip Hop literacies is that multimedia other than monomodal, text-based reading and writing can be used to further individuals' ability to interpret and produce texts. In this way, Haven represents an attempt to build on the rich cultural history of making and Hip Hop practices in which participants are engaged in out-of-school contexts. At Haven, Hip Hop is not simply a text to be analyzed or critiqued through the written word. Rather, within this space, Hip Hop is lived through the multimodal media production practices of its participants. Yes, texts are still studied, but not simply to understand the content of the work. Texts are studied to understand the literacy practices and forms that rappers can emulate in their own work. Haven takes Hip Hop literacies

on its own terms and thus effectively creates a maker space where Hip Hop can be created not just studied, lived and not just analyzed.

Haven treats Hip Hop literacies, then, as a bomb. That is, Haven uses Hip Hop literacies as a vehicle to reimagine the nature and purpose of Hip Hop education for and through interactions with it's participants. Here, mentors resist using Hip Hop to indoctrinate students into a standard curriculum or forwarding their own interest over the interests of the participants. This study suggests that instead of teaching a universal curriculum for hip hop literacies, educators can have students brainstorm the multiple ways Hip Hop literacies can best facilitate their goals. As they navigate the world around them, Hip Hop literacies becomes a resource that allows them to position themselves advantageously in their surroundings (Richardson 2006). Whether they use it to earn income within industry studios, develop social communities through their shared interest in Hip Hop, or relieve stress through the creation process, Hip Hop literacies serves a practical purpose in the lives of those who use it to open up new spaces and means of possibility within their environment.

Hip Hop literacies as Community Practice

The goal of Hip Hop literacies, as it unfolded in the Haven community, was to blow up fundamental socioeconomic constraints that continue to marginalize and suppress Hip Hop literacies in and out of school contexts as a community. For Writing Scholars, however, this means more than changing curriculum though. Blowing up these constraints demands the development of all new physical spaces, networks, and approaches to education where people of color can learn to be producers -- not just consumers -- of culture. Even now, Haven mentors continue to evolve the studio's pedagogical potential by developing these spaces, networks, and approaches. As the desire for students to showcase their work developed, Haven mentors not

only built collaborations between local organizations such as Young Chicago Authors, House of Blues, and the Apple Store, and Mamby on the Beach music festival, they also started to construct a performance stage in the same basement where Haven is currently located. The internal networks within Haven expand with each existing participant. As individuals pass through Haven, they tend to build their own home studios, work for established studios, or both. This network allows participants at Haven to record outside of normal working hours and establish a network of people that help sustain the literacy practices at Haven. These public and underground networks become crucial to these artists' perseverance and committed journey to making music.

These networks expose rappers to additional Hip Hop literacies that they must exercise as they take their literacies in and between spaces. For example, many of these artists become invested in film and photography. As they start to publish their music on digital platforms, they strive to build relationships with individuals offline to help them film their projects and take cover art pictures. These pictures and music videos become multi-purpose whether they are combined with sound bites to market new songs on Instagram, or serve as cover art for albums on Spotify, or even inspirations for new songs, artists develop new visual modes of Hip Hop literacies through the networks they circulate in and out of Haven. And this is nothing to say of the embodied performance when on stage -- the practices of reaching out to venues, showcasing work, soundchecking audio equipment, developing performances mixes. The Hip Hop literacies that rappers gather in the studio is center to their identity as rappers. But mobilizing their literacies in their networks, rappers aggregate additional skills and knowledge that the studio alone cannot provide. It is precisely why the development of Hip Hop as a community practice is

as much dependent on the spaces one can aggregate practices as it is in the network that rappers can circulate those practices as well.

Investment in these two functions for Hip Hop literacies practice also invest in and help continue a longer tradition of using literacy instruction and theory alongside the cause for social justice since the Civil Rights Movement. A focus on social entrepreneurship rather than individual mobility becomes methods to actively challenge and change critical discourse and norms. And Hip Hop has been doing this for a while. But as Hip Hop literacies continue to be used by schools, it is unclear if they will be used to provide students with a means to challenge those norms or simply reproduce them. Thus, an ongoing question that should keep scholars and teachers of Hip Hop literacies awake at night should be “are you exploiting Hip Hop literacies for your own benefit? What would it look like to take Hip Hop literacy education on its own terms? How might Hip Hop literacies education be adjusted to best facilitate the goals of particular populations within specific situated settings?” These questions demand that instructors and programs engage with the needs of their community in order to effectively address the specific place-based constraints that keeps Hip Hop literacies -- and Hip Hop culture -- in the margins, and the strategies and tactics that keeps it moving forward.

Limitations

This dissertation provides a foundation for an ongoing research agenda that explores how rappers learn and to use new and existing literacy practices to develop their Hip Hop literacy repertoires. For this reason, this dissertation is a first draft of findings, marked by a few limitations. In this section, I’ll name two of those limitations and discuss afterwards how they figure into additional chapters for a book manuscript.

Audio Engineering and Black Queer Women: A Call for a Queer of Color Perspective

This dissertation uses what Kirkland and Jackson call a “telling case.” That is, not representative of a population group, according to Kirkland and Jackson, a telling case rather serves as an example of a deeper phenomena that can illustrate theoretical issues not previously visible (pg. 28). In this way, rather than examine the individual practices of any single person (s), one can identify how literacy forms and functions within a group by identifying the patterns in what constitutes their literacy practices. In doing so, one resists pasting a theory of race or gender on a particular group and instead examines how race and gender bloom alongside literacy within specific situated settings. Specifically due to the fact that literacy instruction and theory have been invoked alongside the cause of racial justice since the Civil Rights Movement (Pendergast 2002), it is often easy to center race in literacy studies as a primary area of focus, as it is constantly threatened by an encroaching whiteness that seeks to erase or marginalize issues of race in and outside the academy.

Having taken this “telling case” tactic in this study, I see potential for a much-needed shift toward examining the dynamics among race, gender, sexuality and Hip Hop literacies in a future book manuscript. Namely, focusing on the experience on the Black hetero and queer experiences of the woman at Haven. Due to my limited time in Chicago on the weekend, I was simply unable to examine the literacy practices of Black hetero and Black queer women in the studio. A range of research on women and hip hop literacies exist, especially how past and existing artists challenge existing public and political discourse surrounding the patriarchal underpinnings of Hip Hop culture. A related area of research includes how women use multiple medium including written word and video and wrestle with these patriarchal norms. And a burgeoning area of study has started to account for the experiences of Black queer and nonbinary people who participate in hip hop culture both in the past and in the present. In other words, this

study would greatly benefit from an analysis of how Black Queer Women at the studio develop and deploy their Hip Hop literacies that merge or diverge from the experience of the men I have detailed here.

Towards a Study of the Plurality of Hip Hop Cultural Production

This study focused specifically on the composition practices of rappers/engineers at Haven. In doing so, I traced the composition practices of these rappers prior to, at the beginning of, and during their time at Haven. This approach allowed for a longitudinal analysis of how rappers/engineers developed their Hip Hop literacies within this space and an examination of how the literacies they brought into this location. As Hip Hop literacies are typically understood as a set of practices and more as a set of products (lyrics, songs, music videos, etc.), this emphasis on composition practices highlighted the specific skills that hip hop practitioners put into effect when creating their own hip hop music. In short, this study provided a *grammar* for the practices that constitute hip hop music in the 21st century.

Though I focused specifically on the practices of rappers and engineers, I failed to attend to the practices of an equally crucial agent in the creation of Hip Hop music: the beat maker. Throughout the course of my study, rappers played various roles when creating Hip Hop music and one of those roles was the beat maker. Now beat makers are different from audio engineers as they focused exclusively on the beat of the music rather than the audio or vocal manipulations of a song. And yet, some beat makers also took up the label of producer as they worked both within the manipulation of beats and vocal audio tracks. The way rappers learned to mix the practices they learned in one genre of audio production into another could not be documented at the time of the study due to limited interaction with participants during the course of the pandemic. Focusing on the development of beat makers/producers could extend existing

literature on Hip Hop beat creators to provide us with theoretical frameworks of how Black Hip Hop producers gain access to, learn, and execute the skill necessary to produce a dope beat. And moreover, how those practices, frameworks, and ideologies can help us teach sonic literacy and media literacy to future beatmakers/producers in non-traditional education settings.

An Introduction to Future Work

The rhetorical situation and time constraints of researching and writing this dissertation has inevitably left other chapters on the cutting room floor. In this final section, I want to briefly describe two potential chapters in this dissertation that I would write for a book manuscript. These additions and revisions would stem from analyzing field notes as well as additional observation and interviews with instructors and students at Haven and elsewhere. In addition to revisions that would include these chapters, I recognize that this current draft of the dissertation does not sufficiently theorize the idea of race. Thus in these two additional chapters in particular, and in the prospective book manuscript in general, I will make it a point to thoroughly theorize the idea of race across each chapter.

Chapter 5

The fifth chapter would provide a window into the experience of Black hetero/queer women Rappers and Engineers. In this chapter, I would be less interested in showing (i.e. proving) the humanity and sophistication of these women of color. This is a different kinda project. While this dissertation focused exclusively on the experiences of men of color, this chapter helps provide a broader context, as it unpacks how Black hetero and queer women learn, use, and continue to develop their literacies repitoires. I am particularly interested in examining the histories, practices, and knowledge of funds that they draw from as they work to create spaces for themselves in Hip Hop both in and outside of the studio. Analysis, I argue, may reveal

new ways of being that inherently represent a critique of and action against hegemonic pedagogies, practices, and means of publication as well as alternative, Black cultural aesthetic that organizes noninstitutional settings.

Chapter 6

While the fifth chapter develops a heuristic for understanding nonmasculine Hip Hop literacies, the sixth chapter would focus on the practices of Hip Hop beat makers/producers. This chapter would investigate how beat makers/producers develop the skills to produce beats and negotiate the preferred genre of sonic literacy, audio mixing, that existed at the studio. Through an examination of the beat makers/producers individual practices, digital artifacts, and pre/post production interviews, I will examine how they transfer their knowledge between composition practices and products. I wish to extend Hill and Petchauer's (2013) call to focus on participants other than teacher-researchers while simultaneously looking at a variety of Hip Hop cultural production. I would like to see how these beat makers/producers not only learn their literacies but perhaps develop their own systems of support to design their beats and how such work can help Writing instructors understand the collaborative and iterative process of composition and publication.

Meditations on Post-Defense Feedback

I defended my dissertation in April and I had the opportunity to reflect not only on a series of questions that were brought up during my defense, but also ideas that I myself was struggling with as I wrote my dissertation. In what follows, I would like to present my meditations in two overarching sections. In Section I, I offer my response to two questions posed to me during my defense. In Section II, I reflect on two of the shortcomings of my dissertation and some ways that I will attend to them in a revision of this dissertation.

Section I: Questions Posed

Where do you think the literacy activity is located?

In writing my dissertation, I was very much focused on what I call “the moves” of literacy, or the acts of semiotic creation. I'm very interested in what individuals are actively doing in order to be able to produce texts. And so in chapter one, while focusing on Shawn and Prophet, what I tried to do was to actively show the way that, for example, Shawn had to move from school to home and vice versa to be able to develop his repertoire of literacy skills. And these skills were very much practical. In Shawn's case, for example, at home, he would be able to listen to music that his mother would put on the radio. However, when he went to school, much of this aspect of *feeling* that he associated with hearing music was diminished in school because it was simply presented in text-based form. Hip Hop, for him, was presented in school in relation to more traditional understandings or sanctioned literacies within schools such as poetry. And so with this understanding of rap-as-poetry, Shawn in turn was able to learn skills such as being able to highlight rhyme schemes, and then adopt those skills whenever he went home when looking at things such as genius comm specifically videos in titled check the method that show the various rhyme schemes that represent able to put inside their own music. And so these are just very short examples. But what hopefully has been coming across right here is this ping pong effect, or what is known amongst DJ's as “moving the fader” between different domains. For Shawn, being able to go between different spaces to be able to aggregate these “moves” of literacies eventually worked to facilitate their own agendas of becoming rappers.

In chapter two, I'm able to further advance this idea of literacy by moving from words to sound by focusing once again on the “moves” that rappers apply in their music making process. And in Haven studio, what I was able to see was, because of my own participation in the process

of learning how to engineer, rappers had to consistently tell me like, “Look, you had to do this, this, and this.” And when I refer to “this,” I am referring to setting up a program, how to use specific plugins, how to understand the platform itself, how to apply specific theoretical frameworks of setting a session up and understanding how instrumentals are layered on top of vocals. And it's all of these “moves” that essentially serve as a framework for building Hip Hop music.

And in the end, in chapter three, again, just to re-emphasize this idea of moves is again, the practical application of understanding, ways of creating with different resources, text, sound, or in the case of my third chapter: space. So in the third chapter, these ideas of having to put together one's own home studio because of the pandemic itself, rappers became particularly attentive to the way that spaces aren't these just empty boxes, but that they are very much constructed in certain ways, and constructed with certain unseen characteristics. And I believe I'm speaking about Messi in particular, in chapter three, but Messi ends up noticing that when putting positioning his uh, his microphone in a particular place in his room, he had to go around and like clap his hands to be able to hear the reverberations of specific sounds. And that was him starting to learn how to read rooms as texts. So we can already see that transition of simply looking at print based forms to starting to see space as text themselves. Much in the same way that writers place commas in sentences, or engineers place silence in music, so too did Messi learn how to put materials in space as a resource for editing and constructing a studio space.

And I've only gestured towards some of the spatial-editing skills of the way that rappers were very practical about the way they understood literacy skills, as “moves” in particular, as ways that those moves are able to work in response to specific contexts that they live in. And more importantly, the way that those contexts don't limit what they can create, and that they are

actively looking for available resources, in spaces, across spaces, and by re-mixing skills, practices, and frameworks across those spaces. However, this aspect of space is an area that I would expand on in my manuscript as rappers did not simply create spaces for themselves in the physical world but also online. They applied “moves” that they learned at Haven, with Haven participants and larger online Hip Hop networks to navigate barriers to their music making process. Moving forward, my aim is to explore how rappers developed coding literacies, and leveraged specific spatial literacies with and without institutional support to make way for their Hip Hop literacy practices.

Where would you take us if you didn't feel obliged by the field's [Composition and Rhetoric's] limitations?

I would love to be able to theorize a more ecological understanding of Hip Hop. In the course of my studies, I identified rappers who had an area of institutional support in Haven. And yet, outside of Haven, rappers still struggled with the multiple realities that came with being young adults, Black, African American men, and living in the Southside of Chicago. In order to navigate their environment, rappers had to become health experts, identifying their social determinants of health such as police brutality, environmental racism, and limited mobility. I also heard rumors of rappers also that had to learn how to redistribute wealth amongst their communities in terms that walked the line between legal and illegal means. All the while, rappers were learning how to market their work developing marketing plans and identifying new financial partners and streams of revenues. In short, my work with these rappers expanded certainly beyond traditional and non-traditional writing spaces and evolved an ecological writing system that rappers leveraged and took advantage of to work towards their benefit. My work essentially inspires additional studies that not only take into account rappers' health and wealth,

but their means of survival and resistance across deserts of institutional support. Such work would essentially draw on more educational, sociological, medical, and economic scholarship to account for the multidisciplinary perspective that constitute a rappers identity, day-to-day lives, and environment.

Section II

An Elaboration of Hip Hop and its Black/African American Cultural Roots

An area of recommended improvement included my elaboration of Hip Hop literacy at the beginning of dissertation. Though I was commended for my current work, one of my advisors suggested that my literature could do more to highlight how Hip Hop literacies emerged from African American literacies and oral/speech traditions. In part, my advisors recognized how my elaboration had to simultaneously prioritize Composition and Rhetoric scholars while also drawing on scholarship outside of my discipline to make my overall argument. In short, my previous drafts essentially struggled with a question of audience. My advisors have since provided me with further resources on ways that I could expand and better situate my own theory of Hip Hop as a multiliteracy and multi-sited practices and I intend to use these source as I revise this dissertation into a book.

Honoring the Hip Hop Scholars Before Me

As two of my advisors suggested in my previous drafts of the dissertation, “I was a bit harsh on people who did Hip Hop education in the classroom.” In part, this harshness, I believe, developed out of some of the scholarship that investigated Hip Hop in Composition and Rhetoric, early 2000’s scholarship that leaned into Hip Hop culture as a means of perpetuating institutional agendas. However, even in the early 2000s, there were scholars who were respecting Hip Hop and taking it on its own terms to understand how students and established artists made

use of Hip Hop literacies in their day-to-day lives. Further readings have allowed me to develop a language of understanding Hip Hop scholarship in waves with multiple strands that at times worked towards advancing the goals of students and other times -- intentionally or not -- advancing the goals of institutions. My struggles to clearly elucidate these strands and waves of scholarship can in part be understood as a result of the still contradictory means by which educators knowingly or unknowingly apply Hip Hop in the classroom. At the same time, I am fully aware of my own agency as a scholar and have worked to redefine my relationship with previous scholarship -- detailing my work as extensions of what has come before me rather than simply universally criticizing all that has come before me. I have since worked to attend to these harsh criticism throughout my chapters and will eventually re-edit these sections as I update them with further readings in a revised draft of this dissertation.

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