Literacy, Sound and Technology in Youth Studio Recording Practices

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Abstract

Although many researchers have explored multimodal literacy with digital technology, few have specifically addressed multi-literacies with sound and audio. This analytical review aims to examine how social science researchers are discerning modes that focus on technology, sound, audio, and language as a means to create agency, resilience, motivation and engagement with marginalized youth, and the ways these compositions may in turn create affective intensities within the composer and their audiences. The study will also consider the important ways these multi-literacies can become incorporated into classroom curriculum.

Bien que de nombreux chercheurs aient examiné la littératie multimodale avec la technologie numérique, peu ont abordé spécifiquement les « multi-littératies » avec le son et l'audio. Cette revue de la littérature vise à examiner comment les chercheurs en sciences sociales perçoivent des modes de discernement qui se concentrent sur la technologie, le son, l'audio et le langage comme moyen de motiver les jeunes marginalisés, et comment la composition peut, à son tour, créer les liens affectifs intenses entre le compositeur et son publics. L'étude examinera également l'importance et la manière dont ces « multi-littératies » peuvent être incorporées dans le programme scolaire.

Keywords: *youth, sound, audio, technology, multimodality, agency, resilience, motivation, affective intensities, hip hop, rap, identity, community*

Literacy, Sound and Technology in Youth Studio Recording Practices

Before the turn of the 18th century, Sweden became the first western country to attain near-universal literacy rates without formal schooling and during a time of widespread poverty. (Graff, 1987) Based on a common assumption that literacy breeds economic and social prosperity (Tilak, 1989), Sweden should have been a shining example of growth, modernity, equality and economic development. But this was not the case. Their definition of literacy included only functional reading comprehension and excluded writing. Reading comprehension was taught through a literacy campaign spearheaded by the Reformation and Lutheran Protestant churches. These churches provided instruction outside the school setting in the home, managed by the women in the house. The education consisted of reading (supervised and assisted by the church's clergy) with regular obligatory examinations. (Johansson, 1977; Graff 1987) The church's goal was simple; to guide a Christian way of life to promote a citizen's character with social, political and religious concepts conveyed through literacy education. However, this presented a problem for both the Protestant and Catholic Church, as they felt if their subjects had a text, they might not interpret it accurately. The church preferred to leave the meaning-making to the church's authorities. They righted the "issue" by weekly meetings with orthodox sermons and religious illustrations. (Graff, 1987) In this case, literacy fueled authoritarian religious leaders to encourage the divine in their parishioners, providing they were subject to their "rules."

I would argue that many of our Canadian youth perceive literacy in their English Language Arts (ELA) classes today in the same light. Many of the ELA classes I have witnessed in Quebec’s secondary schools still cling to traditional modes of teaching, which follow conventional paper-based content through written language via handwriting, and the printed page. The texts presented to our secondary students follow conventional grammar and linguistic

genres, organized and staged to meet the criteria of the curriculum. How can we make these ELA classes a place where students are engaged, thriving and wanting to learn instead of having Canadian youth confined by the narrow limitations of traditional literacy still taught in schools today? It is this inquiry that has fueled the research questions examined in this thesis.

Rationale

My journey toward discovering multimodal literacy stems from a 24-year history as a music and resource educator for primary and secondary school communities. I have always looked at alternate ways to reach my students, with music instruction as the primary resource to achieve these goals. With primary students, multiplication tables, geographical regions and figurative language concepts were achieved through song. With secondary students in diverse needs and inner-city communities, digital literacies were far more relevant to students, producing higher quality work. I began this literary analysis to discover new and innovative ways to reach these students and share digital/modal instruction successes with colleagues. As a classical performance artist, I was reticent about including technology, popular music or songwriting into my music curriculum. It never seemed credible enough to be used as an effective teaching tool. Having been grounded in the classical tradition, I felt my students had enough exposure to modern music outside school settings. My role as their educator was to introduce them and open their minds to real music, i.e. that in the classical idiom.

However, research conducted in the last forty years has enlightened our understanding of home/school literacy practices to encourage engagement, motivation, and student retention. More specifically, digital literacy practices are rooted in the intersection of home and school. Although not known yet at that point in my career, including out-of-school practices was

precisely what was needed to engage students in the classroom at school. This narrow-minded view of what real music consisted of continued in my piano studio, where I corrected budding pianists on the performance and interpretation of their classical pieces, insisting that it was not relevant to the period in which the composer wrote. One of my more advanced students presented the idea that this might not be the way to teach when he questioned in his lesson why he had to interpret his Chopin Nocturne the way I suggested. He stated that he would not be performing before a crowd of professional pianists and that he was spending his money on lessons for the sheer enjoyment of playing. Although that moment was the turning point, it stemmed from a deep-rooted shame of not listening/hearing what the student said. From then on, the curriculum changed, in-studio and in the classroom. It became guided by the interests of the students. Classroom projects included student-led radio shows collaborating with Radio-Enfant in Montreal, including more jazz and pop music into lessons and group songwriting recordings in the students' chosen genres. The students in both settings morphed from liking music class to flourishing in it.

Current definitions of literacy are broad and encompass both multimedia and multimodal practices. (Jewitt, 2008; Kress, 2003) Multimodal literacy refers to making meaning through reading, watching, interacting, understanding, interpreting and reacting with multimedia and digital texts. (Walsh, 2010) These interpretive texts viewed in terms of sound, visuals, and writing can form meaning, each in its own right. (McKee, 2013) Multimodal literacy changes communication (texts) as an outcome of social networks (Rowsell and Walsh, 2011), creating a more profound interest in sound, composition, visuals. Studies have shown that secondary students are far more appreciative of using multimodal texts instead of printed versions in their classes, especially when used as an integrated approach with mother tongue languages. (Tuzel,

2012). Researchers have explored ways multimodal projects create engagement and agentive self-expression (Anderson, Stewart, & Kachorsky, 2017; Hull & Katz, 2006). However, there has been little research on the specificity of sound, text, language, and movement as modes connected with digital environments in secondary classrooms. This thesis will attempt to bring the objective and rationale for using sound with the modes mentioned above as multimodal communication strategies with secondary students through analytical inquiry. I will specifically look at methodologies using sound, language, audio and technology in recording experiences, with the hope of creating engagement and agency in youth writing practices. With students from marginalized communities, this is particularly important as they do not always receive messages of hope in their lives which, as a result, can make it difficult for them to envision a better future. Having students experience hope beyond what is typically in the environment around them can induce action (Dixson et al. 2019), reduce feelings of futility and reduce drop-out rates typical to these communities. This thesis's broad topic will explore the ways scholars are researching sound, language, technology, and audio in amateur and professional studio recordings with youth. Multimodal literacy practices allow us to look at literacy in this way, focusing on generating a more relevant, engaging curriculum to produce motivated and agentive students.

Theoretical Framework and Relevant Literature.

- The Literacy Debate: a brief introduction to the history of literacy and how it has transformed over time.
- New Literacy Studies: examining new forms of literacy beyond traditional print literacies.
- Student Agency: a brief synopsis of youth agency and what it means for educators.

- Sound and Technology Communication Practices: looks at the multiple ways sound is used in digital and written communication.
- Affective Intensities: a discussion on the process of feeling literacy events.
- Soundscapes: examining the ways combinations of sound can emerge from the environment in acoustic ecologies.
- Research Objectives

Research Objectives

This analytical review will explore the following research questions;

- Broad Question: How are social science researchers theorizing the role of sound, language, audio, and technology in youth recording practices and experiences?

The first objective will include looking at forms of the above criteria with home, amateur and professional recording studios, including podcasting, soundscapes, songwriting, live streaming, and rap lyric-writing—including links made to the impact of multimodal literacy and the secondary school curriculum.

- Sub Questions: What are the theoretical conceptualizations of the role of sound, language, audio, and technology in the development of agency, empowerment, motivation and resilience in youth through studio recording?

An examination of whether this form of multimodal writing with sound increases engagement and motivation in students will transpire in the second objective, with an analysis of the impact on curriculum design.

- How does the exploration of sound language, audio, and technology contribute to the shaping of affective, emotional experiences?

The inquiry of the third objective will address the affective intensities created in the student's compositions and their audience, with a brief discussion on the way it occurs.

Following the introduction, the thesis will be separated into different sections:

Methodology

Through this analytical literature review, the methodology will find relevant scholarly articles and books through five different digital library databases. Included will be a log of search terms (youth, students, sound, recording, studio, researchers, agency) with variations on the keywords to increase the potential yield of articles. Criteria for the materials found will have a timeline of 20 years to ensure an adequate number of articles, the reasons for excluding and including material, and the number of articles found under each database.

Findings

This chapter in the review is the methodology's findings, with links to the framework and relevant literature.

Summary and Discussion

This section will attempt to highlight the significant discoveries from the findings and interpret them, linking them to the discussions in the theoretical framework.

Conclusion

The fundamental constructs of this analytical review will examine the ways studio recording with youth can lead to engagement, empowerment, motivation, and agency in and out of school.

These constructs will deepen understandings of student identity both individually and through their communities through collaboration and multimodal composition. The final construct will address the reform of multi-literacies in education and curriculum to achieve success for all students.

Background, Framework and Relevant Literature.

To explore how social science researchers may be theorizing the role of sound, language, audio and technology in youth recording practices, I draw on the theoretical framework of New Literacy Studies (NLS) and sound composition/communication practices. New Literacy Studies allow for the inquiry into different types of literacy beyond what appears in print, through digital means and practices rooted in popular culture. Using the approaches found in NLS can create greater motivation and engagement in students, particularly when combined with communicative methods employing varying facets of sound. In addition, focusing on concepts found in this framework allow for a better understanding of how researchers examine the role of sound in youth experiences and recording practices.

The Literacy Debate

Individuals considered "literate" in the early 20th century were viewed as released from a "primitive state," someone who was more modern, moral, and well-informed. (Graff, 1979) Countries like Sweden with high literacy rates were naturally assumed to be more modern, better developed, well-behaved, and in a word, civilized (Goody, 1977,1986; Graff, 1979; Olson, 1977; Scribner & Cole, 1981). Researchers and educators have long touted literacy's power due to its ability to generate critical, rational, logical, and analytical thinking (Gee, 2014). In the 1980s, researchers challenged this perception of literacy, stating that there was little proof that literacy

achieved these miraculous effects. They referred to it as the "literacy myth" (Graff, 1979, 1987a,b), with two main thoughts at its core: 1) There was little evidence historically to support these assertions 2) There were multiple other factors involved in the intricate role of literacy that the claims do not support. Instead of focusing on the social and cultural factors contributing to literacy, these elements took a back seat while researchers focused solely on reading and writing and the school curriculum. At the time, what occurred outside the school setting was considered irrelevant and ignored.

New Literacy Studies

New Literacy Studies (NLS) are not in effect new, but a term given to the weaving of the social, cultural, political, and historical studies of literacy. (Pahl & Rowsell, 2012) It is a viewpoint used by researchers to represent certain theories. Through ethnographical and anthropological research, scholars looked at literacy in everyday life, recognizing it as a social practice. (Street, 1995; Gee, 1996; Barton & Hamilton; 1998; Guitierrez & Rogoff 2003; Stein, 2007; Pahl & Rowsell, 2010; Gee & Jay, 2015) Not only do New Literacy Studies investigate literacy practices and events, but they examine how people perform these events in their work life, at home, or in school. (Pahl & Rowsell, 2012)

Literacy Events

One scholar leading the attitude change toward literacy was Brice-Heath, who conceived what is known as literacy events. Heath took a team of researchers to the rural Carolinas to study two very different communities in Trackton and Roadville, examining how parents incorporated language, literacy, and decoration in their children's interaction and communication. (Heath, 1982) She continued the study by observing these same children when they entered primary school. Heath found a vast divide between literacy practices at home and school with the

children from the rural communities, whereas the students from the town had home practices that were more in line with the literacy learned in school. Her research then became focused around notions of literacy events, which she defines as "any action sequence, involving one or more persons, in which the production or comprehension of print plays a role" (Heath, 1982). This idea enabled Heath to understand how different literacy practices and events are produced by specific moments. (Pahl and Roswell et al. 2014) She discovered that this form of ethnography of communication explained why African American children do not do well in school compared to their white peers, which led to their narratives not being recognized in school contexts. (Hymes, 1996) Hymes takes this point further, citing that not only are certain narratives not valued as a form of knowledge, but their speech patterns are rarely recognized and appreciated in different contexts.

In NLS, literacy events are circumstances that relate to practices of reading and writing. For this review, the composition in-studio by students becomes the literacy event in the practice of studio recording. These events will be examined further in the findings, linking different studio composition events to home practices, and addressing the importance of educators to include and appreciate ethnographical communication in their student's writing.

Literacy in Different Domains

In 1981 psychologists Scribner and Cole wrote a book instrumental in changing literacy in western society. It challenged the notion of literacy producing higher intelligence and cognitive capacities by looking at a small community of indigenous people in West Africa who had created their writing system outside a traditional school setting. (Scribner and Cole, 1978) The Vai had developed three categories of literacy, which their people used to different degrees. A few adopted all three types, some a combination of the three, and some none.

The first literacy type was the English language, learned in Western-style school settings. The second was a syllabic-typescript where the Vai's symbols represented syllables instead of sounds, predominantly used with family and friends. The third literacy type was a form of Arabic writing, specifically used to memorize and recite the Quran, which students acquired in Islamic religious institutions. The two latter types of literacy were learned and used outside school settings.

A key finding in Scribner and Cole's research was that the types of literacy found outside school settings did not lead to what we would think of as increased intellectual skills, nor did they contribute to augmented taxonomic genius or logical reasoning. (Gee, 2014) Furthermore, those literate in the English language and capable of the tasks found them deteriorated after having left school for several years. The Scribner/Cole research results showed that literacy does not lead to monumental cognitive abilities (as previously thought before the 1980s). (Graff, 1979) They discovered that people in different settings acquired different language practices, which altered how they learned.

In NLS, the word domain represents the space where literacy occurs. Scribner & Cole's study demonstrates no single literacy type but many different modes tied to specific practices and domains. (Scribner & Cle, 2013) NLS has taken literacy outside the classroom into different spaces, capturing an individual's identity and acknowledging specific domains into account. (Gee, 2012) We now know that school is just one domain where literacy practices can occur. Researchers started to question how looking at literacy in different domains helps educators understand their students' lives in their classrooms. *Now that we know that some of the best student writing is grounded in our student's experience and identity, how can we then use it to engage our students?*

Secondary students in the inner-city communities in which I have worked are not interested in learning 17th-century opera. Instead, when I examine what they are interested in, it is generally hip-hop music, basketball, rap, brands, and more. Knowing this, tapping into their interests or identities in my classroom will create better outcomes by using the genres they enjoy and can identify with. Rap music combined with hip-hop allows students to create literacy events with the compositions they can connect to, grounded in their own experiences and identity. New Literacy Studies offers the opportunity to achieve that with students, guiding us through learning about their identity, culture and current interests/passions. These studies allow for different communication and expression styles beyond traditional written modes, such as texting, talking, drawing and messaging. (Phal and Rowsell, 2012) As our learners constantly design, read, discuss and listen to multiple forms of text, this gives educators a larger space to take up NLS in the classroom, in formal and informal settings.

This analytical review will show how New Literacy Studies are grounded in practices and identities occurring in several different domains through research. (Pahl & Rowsell, 2012) I will identify the way researchers use these domains to deepen the understanding of individual and community identity, focusing specifically on using sound composition techniques in amateur and professional recording studios to create agency and motivation in students' literacy practices.

Ideological and Autonomous Literacy

Brian Street, a research anthropologist, was yet another scholar who disputed the cognitive claims for literacy. His theories were grounded in the idea that literacy does indeed have cognitive aspects; however, they are separate from the cultural context in which they happen. (Street, 1984) He referred to this "mistake" as the autonomous model of literacy, as opposed to the ideological model of literacy which is "belief-based and value-laden." (Street,

1984) His research is grounded in literacy as being in symbiosis with many cultural and social factors, including social-economic status and economic/political circumstances. Street argues that simply removing literacy from its social setting to make its statements as an autonomous force to mould an entire culture's mind leads to a dead end. (Street, 1984)

Street conducted his research in rural Iran and found (similarly to Scribner & Cole) that the Iranian people produced three types of literacy. One identified with the Quran taught in Islamic schools, another a commercial literacy used in administering sales at a market in the local village. The third consisted of literacy linked to state schools erected on the outskirts of local villages. Street's ideological model considers how people use literacy in relation to societal structures of power. He also demanded that everyone see literacy not as a neutral skill but as a socially situated practice. (Street, 1993)

Through the articles focused on in this review, I will show how although autonomous models have a place in today's literacy practices, the ideological model is preferred to engage and motivate students based on their social/cultural identity practices. (Objectives 2 and 3)

Literacy, Discourse, and Identity

Gee also identified language as rooted in social/cultural contexts. Like Street, Gee's research produced theories stating language is socially situated and seldom the only means used to present our identity. (Gee, 2014) He distinguished the language differences as discourses, one with a lower-cased and the other with a capital D. He used the argument that the discourse of language-in-use is not just an individual's intonation, a pattern of speech, or particular accent, but a Discourse that includes gestures, personal style, and body language. discourse with a lower-cased d refers to language in use; (similar to Heath) conversations, stories, reports, arguments and essays. Discourse with a capital D then represents an individual's beliefs, attitudes, values,

emotions, and language-in-use, identifying an individual's place within a speech community (Gee, 1999). Gee saw how literacy is moulded depending on our use of it and how school versions may assist some students but be a handicap to others. Gee's thoughts on Discourse are essential to the secondary classroom, as teenagers bring their multiple Discourses into their school setting through clothing, music, style of speech, and brands signalling their identities. They move in and out of these identities depending on which communities in they are involved. This research will attempt to show how these Discourses are instrumental in fostering engagement and motivation in students by embracing their identity. (Objectives 2 and 3)

Multimodal Literacy

Multimodal literacy is a division of literacy that began its origin under the umbrella of New Literacy Studies. It is a field focused on the way individuals make meaning in multiple ways, grounded in social/cultural theories of literacy, constructed by the mixing of social/cultural material, historical and individual elements. (Pryor, 2006) A poster, for example, demonstrates meaning-making through the modes of spatial layouts, still images, and written text, with each mode having its specific action and function in the process. (Kress, 2009) Through the arrival of digital technology in contemporary culture, traditional texts have shifted predominantly from written to image-based, giving rise to social semiotics (the study of social signs) having a more prominent place in today's literacy practices.

Multimodality does not only mean technology, although digital aspects are a big part of multiliteracies. Multimodal texts can be paper-based, digital, and live. (Live meaning-making occurs through gestural, audio, spatial, and oral language) Each of the three modes uses semiotic aspects to create meaning. (Kress, 2009) The focus of this literature review will be on live multimodal texts.

Current research on youth and multimodal composition shows how multiliteracies allow students to express their identities in ways not typically found through traditional literacy practices. Multimodal projects create many different approaches for our youth to use as alternate resources to bring to the composition process. (Jewitt, 2008) Creating and composing in digital environments offer secondary-aged youth rich opportunities for self-expression by composing in multiple modes. (Smith, 2018) Recent studies show visuals, sound, text, and movement provide much-needed engagement for exploring different forms of composition or interpreting diverse literary practices and events. (Alverman, 2008; Smith, 2014; Anderson, Stewart & Kachorsky, 2017; Vasudevan, Schultz and Bateman, 2010) Using multimodal literacies in the classroom allows secondary students to relate to areas of interest outside the school and their cultural backgrounds. There has been much research into the benefits of multiliteracies, particularly with secondary students. They can occur in both a personal and academic nature through the creation of multimodal projects. With digital media providing more ways to shape literacy practices, researchers can conduct more studies exploring the ways specific modes motivate and engage students in creating their artifacts. Some are intentional (Dalton et al. 2016), some are a result of subconscious means directed by affective emotion. Research has shown that secondary students' connections to multiliteracies link content, audience engagement, and identity expression. These three factors predominantly lead to motivation and agency (Smith, 2018)

Unfortunately, often out-of-school literacies are not allowed in the classroom. A problem that occurs with multiliteracies and educators can be the navigation of year-end knowledge. These literature tests are (Pahl & Rowsell 2012) grounded in autonomous literacy styles as a set of skills. In practices outside school, literacy is linked to form, presentation, and design.

Educators then have to make time to realize those literary forms in the classroom; however, both forms are equally as important and need to be present.

Social Semiotics

Multimodal projects created by youth are grounded in social semiotic theory, with different visual, aural, linguistic, spatial and gestural aspects. According to Hodge & Kress, modes linked in communication interact to create a new form of information or message. (Hodge and Kress, 1993) Together, the symbiosis of modes creates new information that individual modes cannot articulate independently. (Consider the poster example in the previous section) A crucial precept of the social semiotic framework is that these modes are shaped by aspects that influence communication use. The mode's potential depends on its cultural use, material feature, and social history to decide if it is better suited for certain communicative functions over others. (Smith, 2018) An example of this would be a secondary student who has difficulty expressing personal sentiment through texts but has no problem expressing it visually instead of another student who prefers to express themself through traditional linguistic modes. These mode affordances are dependent on the writer, the genre, and the message. (Smith, 2018)

For this review, we will examine research composed through the multimodality of sound and explore the social semiotic factors surrounding the choices students make in their composing. (Objective1)

Student Agency

Human agency found its beginnings in social cognitive theories, soon becoming a core concept that states that people are proactive, self-organizing, self-regulating and self-reflective (Bandura 2006). We define *agency* as one's capacity to affect the environment around them and their actions within that environment (Bandura, 1982). Individuals are not removed from their

environment; instead, both the environment and behaviour function through mutual connections that are constantly changing, susceptible to context and interdependent, dynamic processes. (Esser et al. 2016) Agency should then look as planted, developing within social constructs fixed in the physical and environmental world. (Martin et al., 2003) In summary, the agency is plastic, dynamic and transferable, context-bound, and reciprocal processes. (Esser et al. 2016)

Crucial to this thesis, youth can successfully control, affect and mediate events that affect their lives on a minute-to-minute basis but must believe in the self-efficacy of their behaviours and outcomes. This is achieved through the "cognitive, (prediction of success failure) motivational, (resilience) and affective processes. (stress)" (Bandura, 1982). In agreement with previous research on human agency and self-efficacy, motivation created by action and change has at its center the belief that all have the power to instrument change on their actions. Without the belief of self-efficacy, youth do not act on their environments or states. These efficacy beliefs are essential to supporting motivation, well-being and personal success in life (Pajares, 2005). Agency then appears through intentional behaviours that reveal different outcomes. Student agency and youth empowerment are distinctly absent from most curricula across the nation; however, the addition and nurturing of the agency may lead to flourishing outcomes within our communities. (Objective 2) Integral to this paper, we will examine how student agency and motivation can be discovered through multimodal composition, specifically through sound recording.

Sound and Technology Communication Practices

Before exploring how musical composition could look with sound and technology, we need to examine it outside traditional composing idioms. In any timeline, composition shifts (evolves) approximately every 100 years. Historically we have morphed from the monophonic,

acapella, single-voiced composing of the medieval era to the polyphonic writing accompanied by the Renaissance's lutes. The lutes led to the small chambre orchestras of the Baroque and the full-sized orchestras of the Classical and Romantic Era. The instruments then became used in big bands and combos, to rock/pop bands which have once again evolved to digital sound sources available for composition on a smartphone. In the last two decades, we have had the means to create complicated musical forms from the comfort of our homes. Apps like GarageBand have evolved into different collaborative forms of media, enabling individuals to create progressive music from different domains simultaneously, with as little as a smartphone, tablet or computer. In the early 2000s, the midi interface used to be the latest technology; now, we can achieve the same composition through the computer keyboard. It is extraordinary to think that during the Renaissance, hired minstrels travelled to different villages to showcase new music, which we now do with a push of a button stating download.

Researchers exploring sound have done so through multidisciplinary crossings, combining aesthetics, semiotics, musicology, sound studies, media studies and philosophy, amongst others. (Rodrigue, 2016) Experimentation with sound in these cases tends to be conducted as analysis or modal writing elements (Anderson, 2014), often with pedagogical implementation strategies. Researchers McKee (2006), Kress (2001) and Van Leuwen (1999) have demonstrated constructive ways to think about sound, including identifying sound sources, their effects and capabilities. (Rodrigue, 2016) McKee, for example, considered music, sound effects, sound interaction, instruments and silence as an approach to consider the ability of sound to create tone and mood, while sound effects could represent as reference signals. (McKee, 2006 p.346) Using these five rhetoric aspects of sound, secondary students can create rich compositions demonstrating the possibility of these sonic strategies and their use to prior

scholarship, the goals they wish to express and the sonic genre. (Rodrigue, 2016) Through these compositions, students will exhibit what Comstock and Hocks identify as critical sonic literacy, "the ability to identify, define situate, construct, manipulate, and communicate personal and cultural soundscapes" (Comstock and Hocks 2017). Their works can demonstrate the ways literacy can be achieved and used to construct creative, relevant, recorded audio projects. For this review, articles will include researchers exploring the use of podcasts, soundscapes, audio dramas, spoken word, audio memoirs, and vocal/instrumental composition. (Objective 2)

Affective Intensities

Recent research in multimodal literacy practices examines how secondary students' practice is often driven by their subconscious affective intensities (Ehret and Hollett, 2014; Lenters, 2016) and in synergy in communication with their artifacts. This research challenges pre-existing views of compositions designed within a tenet (Leander and Boldt, 2013). One study conducted by Smith in 2017 defines the non-cognitive emotive capacity of a student's multimodal writing practice as "operating at the margins of consciousness" as the composition merged with everyday life to relate to the characters. In this case, the student's affective emotion elicited increased inspiration through the choice to create with the digital tools used. In this composition event, the writing materializes through the student experiencing movement (moving and being moved) and affect (affecting and being affected) regardless of whether the student is aware of it or not. (Ehret, 2018) Affect, then, is the urge in the social realm that advances writing beyond language, where the composition works on the mind, and the mind works on the composition. Massumi describes this as a "sense of motion in a story coming to be. Non-sensuously perceived" (Massumi, 2011).

In summary, something is happening that is outside the definition of mode or senses. (Leander and Ehret, 2019) Not as big as an Oprah "Aha," but as Ehret describes, a quiet internal "yes," conscious or unconscious. The affects in these cases arrive before the quiet yes's, the aha's, and the "got its" They are the feelings that move and steer us in the directions we did not know we wanted to take.

This process of 'feeling' literacy is essential to creating a composition, musical or text. I am convinced I have witnessed in my student's musical writing the affects of writhing and churning to the surface right before the student finds the song's direction. When these relational transformations (Leander and Ehret, 2019) occur, the result can be as subtle as a sideways glance and smile where the student realizes that they have achieved the perfect combination of rhythm, dynamic, melody sequence and tempo, or a complete drop and roll in delight as I have witnessed with collaborative writing with the young men and their "beats'. Both ways are powerful and represent affective intensities in action. This study will explore how studio recording can shape affective emotion in student composing modes.

Soundscapes

Canadian composer R. Murray Schafer first introduced soundscapes to improve individuals' hearing in their sound environment and foster a sustainable sound ecology. (Deng et al. 2009) The soundscape definition includes three central ideas: audience, environment and event, creating the feature of a 'keynote,' 'sound signal,' and 'soundmark' (Schafer, 1993). Soundscapes (and the sound samples taken from them) can divide into two different styles: emotional, ecological and cultural styles, and those related to noise control, architectural design, and other acoustic engineering functions. Since the 1970s, soundscapes have been implemented in

contemporary musical compositions with the onset of electroacoustic music and new-age music. (Deng et al. 2009)

Among Schafer's 1993 description of a soundscape, a 'soundmark' is the most important. Predominantly an auditory landmark, a sound that is unique to a particular location and culture. A 'keynote' (the background audio and a 'sound signal') describes sounds in the foreground that are easily heard. The use of soundmarks, keynotes, and sound signals identifies a sense of space and time referred to as a 'soundscape composition.'

In contrast to a traditional instrumental score, a soundscape may identify markers that show time-identifiability (amplitude envelope and waveshaping), spatial-identifiability (reverberation) and even musical form shown via waveforms. This method, taken from early electronic music and sound editing for movies known as 'Sound montages,' are 'musical scores' suited to soundscape compositions.

Research Objectives.

This literature review will investigate how social science researchers theorize sound and technology in youth recording practices and experiences. (Objective 1)

It will include looking at amateur and professional studio production, songwriting, soundscapes and podcasting. In addition, further exploration into the relationship between sound and literacy multimodality will be examined.

The review will then explore the theoretical conceptualizations of sound, language, audio, and technology in the development of agency in youth through studio recording. (Objective 2)

Our last question will consider the way the exploration of sound language, audio, and technology contribute to the shaping of affective, emotional experiences. (Objective 3)

Based on previous literature findings on multimodal student composition and affective experiences with youth, I hypothesize that composing with sound and technology as communication practices will create agency in composing modes through affective experiences for secondary students. The resulting artifacts will contribute to these students feeling moved in themselves and their audiences. Educators would be amiss if we did not use digital technology to forge relationships with our students and create agency and motivation through modal composition. While formal writing in secondary schools is essential, for many students, it does not generate the same interest as exploring composition through a podcast, spoken word, hip hop or rap. Our work as educators is to ensure we tap into how our students want to learn and the best way to achieve it.

Methods.

With literacy, sound and technology in youth studio recording practices being a relatively new area of inquiry, the expectation of finding related articles was negligible. For this reason, a considerate timeline of 30 years was adopted for the search. This assumption proved to be accurate, with most of the articles relating to the first research question. Traditional academic search engines were used, with variations on the three research questions implemented in each one. The following digital libraries were explored; Worldcat, JSTOR, EBSCO, Project Muse, Proquest, and ERIC. Generally, JSTOR was the first engine used. It is important to mention as many of the same articles arose with the other five search engines. To examine the first research question (How are social science researchers theorizing the role of sound, audio, language and technology in youth recording practices and experiences?) I intentionally began with a broad search term; Studio Recording + Secondary Students. A focus on the first 75 articles was taken if

too many results accrued. If the articles were not free of charge in the research engine, the title was transferred to McGill University's Worldcat catalogue, giving access to the work. As expected, most of the results were related to music education; however, a few arose with literacy. With the JSTOR engine, initially, 18,920 results appeared.

In the first 75 articles in the search, three potential documents were found relating to the subject. Using the same search terms in EBSCO, no results were found. In Project Muse, 530 results arose with six articles/books related to the research questions. ProQuest yielded 3783 results, all of which were previously found through JSTOR. Using ERIC and Worldcat, a few articles were found, many initially seen in Proquest. There were five articles related to the topic with ERIC, and I was fortunate to find some articles in the related items section. The following search category I looked at was Studio Recording + Literacy, which yielded 1,957 results with ProQuest. The first was an article about youth finding space in literacy and songwriting. The rest of the articles and books in the search pertained mainly to video results. Again, many articles relating to the topic were found in related items. Ebsco yielded 0 results, JSTOR yielded 8617 results, with five articles related to this study. Project Muse produced one new result; Cultivating Sonic Literacies in the classroom, Worldcat, and ERIC yielded no further results. The following search consisted of the terms Researchers + Sound and Technology + Youth Studio Recording. JSTOR resulted in 11,418 results with five articles suitable for this analysis. With the identical search words, Project Muse yielded 5534, with four articles found appropriate for the thesis.

Except for EBSCO with zero results, ERIC, Proquest and Worldcat produced the same articles found in JSTOR and Project Muse. The last choice of search terms used for the first objective was Youth Studio Recording + Audio Streaming. The article/book results were 25,087 with Proquest, 2107 with JSTOR, 1270 with Project Muse,) 0 with ERIC and EBSCO.

Unfortunately, Worldcat, JSTOR Proquest and Project Muse all had the same articles found in previous searches. Regarding the second research question (What are the theoretical conceptualizations of the role of sound, language, audio, and technology in the development of agency in youth through studio recording?), the keywords Youth Audio Recording + Motivation + Agency were used. With Proquest, 88,750 were found, with none related to the topic within the first 75 articles. JSTOR generated 5892 results with two articles that were considered appropriate for the thesis. Project Muse yielded 4612 results, but no relevant articles were found. WorldCat yielded 88 results; however, the same articles appeared as found in JSTOR, ERIC yielded five results; one that seemed appropriate however the participants were primary students. EBSCO had 0 results. For the final research question (In what ways does the exploration of sound, language, audio, and technology contribute to the shaping of affective, emotional experiences?), search terms consisted of Youth Audio Recording + Affective Experience. Proquest yielded 46,726 results, of which three articles were related to the topic, one of which had nothing to do with youth. JSTOR found 11705, Project Muse with 3211, Worldcat had 586 with one relevant article for the topic. ERIC had 54, none of which were appropriate and EBSCO, 0. It is essential to mention that with the many articles found when read through were not consistent with the research questions and had to be abandoned. For this analytical review, a total of 18 were used.

Findings.

There has been a recent shift in contemporary educational reform toward supporting learning environments that use technology as a mode of delivery. A major force driving this is the immediate access to information through the availability of mobile technologies. Because of this "information-on-demand" access, schools are now looking at re-evaluating the structure of

formal learning environments and their curriculum. There has been much research on modes that govern multi-literacies but little on sound studies and their implication in pedagogy in secondary schools.

Unfortunately, sound is undervalued in multimodal composition and is often used as an add-on instead of a measure to represent meaning. Educators in schools do not include sound as a communicative mode, despite the multi-faceted ways sound can function. Sound has the ability to convey information by transmitting literal and non-literal information. (Bridgett, 2010) With aesthetic purpose, sound can enhance an environment, emotionally connecting the listener by creating mood and ambience. Michel Chion synthesized these ideas in 1990 by stating, "The most successful sounds seem not only to alter what the audience sees, but to go further and trigger a kind of 'conceptual resonance' between image and sound: the sound makes us see the image differently, and then this new image makes us hear the sound differently, which in turn makes us see something else in the image, which makes us hear different things in the sound, and so on." (p. xxii) (Chion, 1990) The first three sections in the findings address the first research question (How are social science researchers theorizing the role of sound and technology in youth recording practices/experiences?) which show that songwriting, hip hop and spoken word were the popular choices amongst teens, while researchers explored many of the theories found in New Literacy Studies examined in the theoretical framework.

Podcasting

In a 2007 article written by Annette Lamb and Larry Johnson, the authors examined podcasting as an instrument of teaching and learning (Lamb and Johnson, 2007). The authors were researchers at Indiana University who taught a media leadership certification program

available to educators worldwide. Both authors also taught in the department of the School of Library and Information Science at the university. Offering multimedia communication is facilitated by the growing number of Internet resources available in school libraries. Through Lamb's and Johnson's research, educators discovered that students preferred a multimedia approach to learning instead of the traditional reading of texts to access information. (Lamb and Johnson, 2007) They also found podcasts motivating their learners to convey emotions and ideas that were challenging to share in text format. The authors realized that with podcasts being the popular new approach to share content on the internet, students were becoming overwhelmed by the choices they faced, with only a few podcasts addressing the learners' needs. Lamb and Johnson asked educators to identify the needs, content area, standards, and selection policy. They then asked them to think about areas challenging to express through text, learning and communication outcomes, and how to differentiate the instruction to create success for all students. The resulting article created a guideline for educators to integrate podcasts and vodcast into teaching and learning. The recommendations made to educators to include podcasts in the classroom are extensive. They recommend looking for the intended audience to begin, as podcasts reach readers of all ages. The authors suggest that listeners enjoy book reviews, author interviews, reading tips, and other related topics as podcast artifacts. They discuss the elements needed to create successful podcasts, including the instruction, design, content, and technical quality of the artifact. The article lists and shortly summarizes lessons, projects, program reviews and virtual tours as potential themes in a podcasts' creation. Finally, the authors advise educators on ways to include podcasts in core subjects in the curriculum.

Multimodal Songwriting as Domains, Spaces, and Geographical Literacies

In 2018, Maryam Ghadiri designed a study from a lack of interest from teens in STEM technologies in the US. Ghadiri noticed that students were not choosing STEM activities in the upper grades in secondary schools, which led to a decline in youth choosing STEM fields in higher education. She felt it was critical to introduce youth to quality STEM education to combat this decline, engaging them in scientific practices to trigger their curiosity and interest. Ghadiri introduced soundscape ecology to middle and high school students with visual impairments in a casual summer camp setting to develop an interest in STEM through soundscape ecology. Soundscape ecology is an emerging science that takes a complete approach to conservation biology, covering all STEM content areas. (Ghadiri, 2018) Ghadiri used the acoustic environment at the camp to create the soundscape, composed of different sounds originating from many sources. This study examined the nearby highway's negative sonic and non-sonic impacts on bird biodiversity and acoustic diversity. Studying the natural soundscapes threatened by noises that were a by-product of industry and modernization raised awareness by educating youth about STEM-oriented acoustic environments supporting the conservation of soundscape diversity. The soundscape brought together information from acoustics, data mining, animal behaviour and atmospheric geology/geography. The study showed that environmental fields like soundscape ecology engage teens in creative ways and provide a means for them to work with scientists and technology in the field through informal learning outside traditional classroom and laboratory settings.

Seven participants ranging in age from 11-14 years attended the four-day soundscape ecology camp, affiliated with the Aubodon Society. Two of the participants had a strong interest

in bird watching. The study's positive results showed the students' impact of collaborative teamwork and social interaction with understanding the soundscape camp. It also shows evidence of certain factors having direct experiences with nature, activities that promote collaboration with students, hands-on experiences, and access to authentic technology fully engage students in learning and developing an interest in STEM activities. These results then become critical for curriculum designers and educators to consider the components of designing an outdoor science camp. The study also shows that adolescents motivated to gain knowledge on a topic with a value assigned to it will be more than engaged in the program, thinking critically about the problems, seeking solutions, and feeling empowered in the process to act.

In a similar article with researchers looking at songwriting as geographical literacies, Vaughn Watson and Alecia Beymer at the University of Michigan State looked at analyzing the interplay of multimodal literacy with youth across three different spaces and places: journal writing, the physical and social setting of a community music school and the geographical backdrop of Detroit. (Watson and Beymer 2019) Like Angela Kinny, their research's theoretical framework situates in perspectives of social practices stemming around multi-literacy activities with youth. The study's students used a genre called praisesong to draw on past experiences toward present and future movements through writing. The study's foundation used communicative practices involving various listening, writing, reading, and making exercises. In phase one, the students used these techniques to plan and compose rough drafts of songs in their journals and then composed (collaborating with their peers) on iPads, first in the classroom and then in recording studios. The songs reflected their thoughts and affection for Detroit, which they then globally shared by uploading them using the Soundcloud music streaming platform. The

practices used were embedded in the student's historical background, civic learning contexts, and youth lived experience outside school activities.

Praisesong is considered a performance genre similar to spoken word, which Watson and Beymer describe as an instrumental performance of singing and speech. (p.30) Also described as freesong, both the melody and lyrics evoke shared knowledge or stories associated with actions, events, attributes and social mores. (Watson and Beymer 2019) The researchers use freesong to promote hope, making visible cultural assets to lift marginalized youth's experiences. They believe that neutral education does not exist and that all education is directive, and in the case of praisesong, framed toward economic and racial justice, enabling the students to become makers and recipients of the songs they compose.

Typical characteristics of praisesong include honouring a person or place with male and female voicings, recalling ancestral heritage forged by both context and heroic elements. Praisesong seizes aspects of the past through reference to historical characters. It has entertainment value, reinforces shared goals of personality and behaviour, and reminds listeners of past events in which praise and singing were at the forefront. Praisesong can also challenge people to take on incidents to draw on strength to carry someone into battle or adversity.

Watson and Beymer created a qualitative study situated in Detroit, using a curriculum designed through a university community, collaborating with the faculty and staff in music education and three artists working at the Community Music School hired based on their songwriting expertise and music production. Their participants consisted of twenty-six students aged 9 to 15 who were youth of colour. The once-weekly class' duration was two hours after school over fifteen consecutive weeks. The research team video recorded each class, took field notes summarizing the interaction between the students and their instructors and created

activities related to their journal writing, songwriting, music production, performances, and studio recording. Data was collected and included in the social and physical setting of both the music school and the city of Detroit's geographic setting to include the context of spaces and places. The students conceived strength in the community by constructing tribute themes to their city and considered how their music could inspire their community to realize civic and political change. For example, when the participants were asked what plans they would take in ten years as mayor, they proposed a composition alluding to the city's revival through praisesong. The students showed a critical awareness of resilience and adversity that one student described as "the city having obstacles to drive against and push through but never give up on." Through writing praise songs, the students' words and music were used to construct a tribute to the city and gave them hope to foresee strength in their community.

The following article finding for objective one was written in 2013 by Irby, describing the consistently negative nature of research carried out with black males (considered to be underachievers, at risk, and disengaged from their learning). (Irby et al. 2013) The authors continue by saying that these men face challenges to their health and well-being development in modern American society and seem to be defined by inclusive education learning tracks, dropout rates, and school suspension. (Noguera, 2003; Reed, 1988) The authors imply that the articles allude to barriers black youth face as so challenging, it does not allow them to achieve success through traditional social and academic means (Fashola, 2005; Noguera, 2003). Irby et al. point to the difference between black males and other American youth show that schools have not inferred how to promote these men's learning to rise above the history of deficient performance. (Irby et al. 2013) They state that this raises important questions about the relevance of culture in

schools' curriculum design and how hip-hop can be a space where black youth perform well. (Kirkland, 2008; Low, 2010; Sanchez, 2010)

The authors see hip-hop as a domain, a space that needs subcultural capital (Magaudda, 2009) (i.e., the knowledge authenticity and skills required to participate in hip-hop production processes. They state that hip-hop is not unlike the domains of politics, business, or religion in this regard. They argue that both school and hip-hop are places where cultural producers take their artifacts to have their quality judged. (McIntyre, 2008) In this case, hip-hop is not unlike schooling in the way it can be an entity to be examined similar to other practices such as teaching, learning and engagement. (Levinson, Foley, and Dorothy, 1996) As researchers began to ask how hip-hop production sites might help understand how black males learn on their terms, they looked at hip-hop as labour. They then examined the genre through the lens of black males as cultural producers (agents who make decisions, understand the areas of operation, control/ shape their environments and manifest their subcultural capital) by framing engagement and with cultural hip-hop practices. (Irby et al. 2013)

The participants in Irby's study were 14 African American males from within the Philadelphia city limits, which were affected by the policies, changes, and Philadelphia's environment. They ranged in age from 20 to 42 and had achieved a variety of schooling. Data collected for the study came from in-depth participant interviews and observer participation. The interviews consisted of open-ended questions to understand the processes that engaged participants to use hip-hop as a means of labour. In the study, hip-hop was a means of cultural labour and production, with all participants committed to it for financial income and not celebrity status or extreme wealth. The authors found two significant reasons why participants engaged in it as a labour source; one was to have the freedom to control the resulting artifact and achieve

their own in its creation. The other was a sense of community and pride for being involved with something bigger than themselves. The study's findings show that the idea of wealth and its accumulation was far less important to black men than the interpretation of their culture. Decisions to leave a stable job to pursue the genre help researchers understand the participant's motivation and ambition and hold implications for teachers to improve the education of black youth.

Individual & Community Identity-Based Composition in Recording Studios

In 2008 Andrew King wrote an article based on his study examining collaborative learning in pairs in a music studio, recording drum rifts. (King, 2008) Sampling techniques were practiced, with students given partners of equal ability. The pairs chose to receive support through a hard copy manual or a learning technology interface to assist with their training. The students completed a workbook during the process, and the final artifact was a 2-minute drum kit recording on a compact disc. The study focused on designing and implementing a learning technology interface (LTI) in a studio setting, examining its ability to support students while they performed set tasks within a specific amount of time (two hours) and in groups. The LTD used in the study was a multi-media-based website, which included audio, photographs, and text about recording on a drum kit. It also included information about the way the technical apparatus of a studio functioned. The LTI was designed to track pages students had accessed with data and the amount of time they spent on each page. Sixty-four students participated in the study, and the pairs were formed based on their performance in the pre-test.

The results of the study show that learning with technology strengthened full collaboration. (King, 2008) Although the students in both groups (manual and LTI) performed

better on the post-test than the pre-test, the LTI group students demonstrated more significant improvement than those in the manual group. The study shows that students using the manual increased their knowledge of studio recording; however, the manual handling impacted the amount of knowledge learned. The students using the LTI worked together better with the support material, evident from the workbook's completion. The students using the manual often worked independently, showing 'isolated' collaboration or simply relaying information to each other, especially when completing the workbook. In this case, some students using the manual did not see the support material in the critical stages in the learning process. King's study shows that the LTI appears to be a more effective learning tool than the manual, as it encouraged collaboration among the students and demonstrated better scores on the post-test.

Examining multimodal writing and popular music, Geoff Harkness describes the hip-hop studio as a critical or symbolic place, "a zone in which identity and meaning are shaped by social exchanges occurring within a culturally specific location." (Harkness, 2014 p. 85). He continues that the studios are "sites for legitimization and personal transformation" where artists gather to collaborate on music as "identity construction and development:" (p.85). With the arrival of apps such as Apple's GarageBand, home studios have given a shift of power back into the hands of youth, who now have access to online media and technology to create and release their content, shaping the culture of hip-hop music.

In an interesting article written by Ian Levy and Edmund Adjapong (2016), the authors have called scholars to demand that school counsellors create interventions that promote cultural responsiveness to honour the students' cultural community. In this article, it extends to designing a counselling space for services in school. With secondary school counsellors reporting that comfortable office spaces are essential to students' emotional disclosure, some scholars have

noted the need to create counselling environments that align with their student preferences. Similarly, in a 2019 article written by Bryan et al., the authors argued for school counsellors to use social justice and multicultural approaches requiring creating social partnerships with school, family and community to support school counselling interventions. (Bryan et al. 2019) Presently, in the United States, the ratio between counsellor and student is 455 to 1, much greater than the recommended 250 to 1 ratio. The authors state that with the large caseloads and non-school counselling inundating school counsellors, in-school services are being hindered. Counsellors are being asked to collaborate with teachers and administration to provide indirect services to students to combat caseload issues. (Cholewa et al., 2016) Barriers to office-bound interventions for black and brown youth and other marginalized groups are not necessarily internal and can stem from more significant societal issues that should be addressed outside the office. (Ratts 2019) This supports research that recommends community-based counselling practices supporting marginalized groups are beneficial.

Recently, research has shown that youth living in inner-city communities identify with hip-hop culture, and their educators have explored pedagogy practices using the hip-hop genre, in line with the out-of-school literacies being used in the classroom. Not only does this support the importance of school counsellors honouring their student's cultural knowledge, but hip hop and rap are also rooted in the bringing together of community to combat social inequities (Chang, 2005). With the influence of this genre, scholars and educators have examined the potential and power of hip-hop lyric writing, analysis and discussion as responsive interventions in counselling (Kobin and Tyson, 2006; Travis and Deepak, 2011; Tyson, 2002; Washington, 2018) The research also led to hip-hop and spoken word therapy where students engaged in the interventions through writing, recording, and performing hip-hop music. (Levy, 2012) The

recording studio holds a vital place in hip-hop culture, and it must be included when looking at designing culturally conscious counselling environments. (Harkness 2014) Harkness's study looked at an analysis of interviews with producers and rappers, where they describe the values of studios as places of adapted home environments giving value to authenticity and self-discovery.

Levy and Adjapong's study consisted of exploratory action research to show the experiences of marginalized youth of colour who co-created space for social and emotional reflection as part of a classroom-based counselling intervention in an inner-city urban High School. The culturally sensitive intervention was designed to increase understanding of the studio's value as an environment conducive to social and emotional development.

The study took place in an inner-city urban high school consisting of 15 high school students ranging between 14 and 18 years. The students' racial demographic was 66% Hispanic, 32% Black, 1% Asian, 1% white and 1% other. They guided the students through a collaborative hip-hop studio construction process, a space designed to supplement social/emotional support. The participants were recruited from the hip-hop lyric writing class, where they worked with their instructor to create a school studio. The studio construction process occurred over three months, from September to December 2018. The course met twice weekly for 90 minutes at a time and took place over ten sessions. The qualitative data collected was analyzed using a framework and approach created to understand the participant's worlds and subjective experiences related to a specific event or phenomenon common to all students interviewed (Chapman and Smith, 2012). The themes that initially emerged from the interviews were then compared across each participant to identify lower-order themes and combined to identify the higher-order themes. (J.A. Smith et al. 2009) Transcripts were then sent to an author who was not involved with the data collection to audit themes. The following themes were identified.

Higher-Order Theme 1
School Studio as Share Space

Lower-Ordered Themes
Feeling Comfort
Belonging
Wanting Inclusivity

Higher-Order Theme 2
Student Design Choices

Lower-Ordered Themes
Authentic Studio design
Needing Ownership
Thinking Independently

Higher-Order Theme 3
The studio as Practice Space/ Lab

Lower-Ordered Themes
Peer Support
Opportunity
Supporting Others

This exploratory action research results showed that the teens experienced belonging and comfort inside the studio, sharing it with their peers to experience the same support. The finding shows the importance of having advisory councils in school settings with a representation of student members on the team to offer youth a podium, ensuring that counsellors and their programs support all students. Giving students freedom in the aesthetic interior design made the studio feel authentic and positively impacted their sessions. (Levy and Adjapong 2020) The research's main goal was to highlight the experiences of inner-city marginalized youth of colour who participated in a classroom-based counselling intervention where they co-created a studio space for social/emotional development in an urban high school. Levy and Adjapong's 2020 study demonstrate the value of hip-hop studio construction and design as an original approach to a culturally sensitive classroom-cased counselling intervention where students had input in the construction resulting in the sense of agentive pride, a means of supporting their social/emotional needs and encouraging their peers to experience the same.

In a 2016 article written by Fletcher and Mullett, digital stories uplift the interaction between Aboriginal community members in Western Canada. The authors found that with the

gaps in health status between Aboriginal and Non-Aboriginal populations in Canada, Aboriginal youth continue to have challenges that affect well-being due to low SES issues, a history of colonization, marginalization, and trauma. (Fletcher and Mullett, 2016) Knowing that digital storytelling workshops are considered a promising approach to positive youth development, the authors reasoned that an arts-based method could further motivate their study, focusing on the continuation of the Aboriginal cultural community. Fletcher and Mullett 2016). The study was also in line with The Assembly of First Nations Prevention Strategies recommended for communities that respect language, culture and geography, and strategies for high school youth.

The resulting project was called *Prevention and Preservation*, created on the diabetes awareness strategy called "Digital Harvesting." The participants were seventeen youth (Harvesters) aged sixteen to twenty-nine and six elders who created videos about how colonization affected eating habits, gathering, harvesting, and eating traditional foods amongst Indigenous Peoples. In a participatory evaluation funded by Health Canada of The Digital Harvest Project, positive changes in participants' awareness and behaviour toward nutrition and health occurred through creating digital stories. Researchers were able to see increased engagement within the community, increased sharing of knowledge between the generations, increased self-esteem and greater pride in First Nations heritage, changes in negative eating habits and better computer skills. Health promotion goals (healthy communities of healthy people) were grounded in creating stories about diabetes awareness, which renewed the intergenerational interactions between elders and students. In turn, this created moments of increased mentorship between the two groups, raising self-esteem by celebrating indigenous identity, cultural practices, and a connection with their mentors.

While organizing the community workshops, the study used participatory action research to motivate youth researchers and community participants. Initially, youth participated in digital story training, with much flexibility given to accommodate their creativity, diverse demands and ambitions. The workshops taught the students digital storytelling goals, which led to thirteen digital stories and more than sixty mini-stories. The stories' themes mainly included healthy living and community connections. The artifacts were created by sixty core participants, one hundred and seventy youth, and others who created mini-stories. In 2013 participants from the project were honoured at the International Aboriginal Film Festival with an award for their created stories.

This project's process and research suggest that digital stories can be great tools for promoting healthy communities with long oral traditions, where the learning of Aboriginal life skills resides through story. Through the practice of creating these digital artifacts, youth were able to reflect on their own experiences. There are several examples of using digital stories as a tool to preserve the historical knowledge of Indigenous Peoples in communities. Even with the digital stories being engaging, the process allowed for reflection and engagement between youth and elders, allowing for positive and creative change in the Aboriginal community's lives.

Multimodal Songwriting as Sites of Resilience, Engagement, Agency and Motivation

Recognizing the power of multimodal composition in increasing agency and motivation in youth, the articles related to the first and second research questions have resulted in the following section of the findings. Many of the articles found seemed to examine the positive character traits related to human autonomy and choice resulting from the methods used and

artifacts created by the students. The autonomy and choice often led to self-improvement, self-esteem and agency.

Addressing the second research question (What are the theoretical conceptualizations of the role of sound, language, audio, and technology in the development of agency, resilience, motivation and empowerment in youth through studio recording? Objective 2), we begin with an article written by Angela Kinny in 2012 addressing the ways out-of-school literacies have been researched, chronicled and theorized over the last 30 years. She notes that many of the studies highlighted in these reviews have focused on the difficulty, sophistication, and the array of activities where teens have become highly motivated, particularly in out-of-school contexts. She writes that in line with traditional social semiotics, the reviewed research shows that much of the student's voluntary writing practices support a stage for fostering meaning-making, community, stories and social activism as a means of identity and representation. (Kinny, 2012) Kinny sees students motivated to participate in literacy practices outside school because it allows belonging or identifying with a specific community. Whereas other studies have looked at identity as governed by a membership in a group, out-of-school literacies based in communities demonstrate what it means to be literate and offer students the chance to see themselves as writers, readers and intellectuals. Other researchers like Fisher (2007) and Jackson (2006) have detailed how urban minority groups flourish as successful writers and performers through spoken word communities. Here, marginalized groups discover their voice in different programs, writing about issues that directly influence them, creating an empowering force to enlist in social action with their community groups. (Kinny, 2012) The author also writes of finding one's voice as a means of representation through one's identity and how digital multi-literacies, voluntary

practices, and personal writing can be a sanctuary space to help cope with trying circumstances, emotions, and relationships.

In this qualitative case study, Kinny used a 15-year-old African American participant chosen because of his continuous participation in a non-profit after-school community center in Cincinnati. The student wrote and recorded music and lyrics in an amateur digital recording studio using Apple's software program GarageBand. Kinny spent 1 hour a week observing the student's writing and recording, gathering notes over ten weeks. Data also included an interview (transcribed), informal conversations, a compact disc of 10 of the student's songs and photocopies of 18 pages of song lyrics, which provided a rich and extensive view of the texts the student produced, which provided the basis for analysis. In phase one, Kinny used qualitative open coding methods to find points in the data that represented the songs' purpose, meanings, and functions. In phase two, Kinny conducted a thematic content analysis (Berg 1995) of the data highlighted in the first phase to discover themes relating to the criteria, meeting with the participant to discuss the findings and receive feedback.

Kinny's participant shared much about the subjective experiences that influenced the songs he had written, including deaths in his family, his older brother's imprisonment, his father's absence and emotional trauma as a child. At school, the student would act out physically and negatively because of the frustration and anger caused by past experiences. His songwriting began at the initial request of his mother as an outlet for his emotions. Carol Lee (president of the American Educational Research Association), during her presidential address for the 2010 annual meeting, suggested that as a research community, we need to produce more studies that examine both risk and resilience with people in marginalized communities. We also need to look at the variety of resources that help cushion the negative impact of continued daily micro-

aggression people of colour face. In Kinny's case, the compositions her student wrote became a resource as a place of resilience, giving him a space to express his emotion (linked to challenging experiences), an opportunity to handle them, and help alleviate their harmful effects. Kinny states that her participant could have engaged in risk-taking and resistance with songwriting as the principal resource that functioned as physical and psychological spaces producing resilience as a by-product of his artifacts. When Kinny analyzed Christopher's lyrics, they centred around three major issues in his experience; family, personal relationships, and matters in his immediate community. Kinny considers these three issues vital to composition so that literacy educators and social scientist researchers focused on concerns around urban youth could develop a broader view of literacy practice, particularly those that are created outside the official school day, broadening the viewpoint on the role writing plays as resilience in students' lives.

Social science researchers have also looked at podcasting as one of the subsequent big waves of multimedia literacy composing processes. In a 2019 article, Deirdre Faughey provides alternate ways of exploring literacy goals in modern education programs focussing on in and out-of-school literacies. The article examines a blended classroom of ninth-graders experimenting with mini podcasts based on Shakespeare's Romeo and Juliet. Faughey developed this experimental classroom project with diverse students from three ninth-grade English Language Arts classes to develop language, listening, and critical thinking skills with marginalized, at-risk students with mild learning difficulties. Many students (multilingual learners with English as their second or third language) indicated that they hated reading and had difficulty concentrating on what they read. The research project shows the benefits of combining in and out of school literacies (Moje et al.2015, p. 67; Morrell, 2018 p. 76), multimodal composing (Cercone, 2017 p.26, Vasudevan,2006 p. 357) and digital and media literacy (Hobbs 2016), along with other

multimodal text such as digital video podcasts. In Faughey's study, students were encouraged to develop their content for the podcast with a clear structure and a creative intention to produce it. The author encouraged students to be aware of their audience in developing their creative podcasts and be familiar with the play's topic. Faughey's study also drew on the research of scholars who have argued for new ways of learning in which teaching intentionally advocates for student-centred learning and educators collaborating with the students. (Thomas and Brown 2017) Faughey indicates that one way to foster creativity in the students is to have educators take risks and develop learning experiences from unpredictable situations (Hobbs, 2006). Through the unpredictable, students can benefit from positive interactions and teamwork even when resisting belonging or stumbling.

Faughey's study began after her participants read and watched the movie Romeo and Juliet. They participated in different activities, including comparing scenes from the Zeffirelli and Luhrmann films, and examined different literary contexts and elements such as dramatic effect, irony, and subtext. She then modelled a podcast she had created and found examples of podcasts on themes the students were interested in, having them write their observations. After modelling how to record, she included a podcast planning sheet to help the participants contemplate what they found interesting and shared a simple rubric based on items the students found essential to the podcast. The students' final artifacts showed clever critiques of several film versions of the play and a playful side that had not come from class discussion.

Although the following article's participants were not secondary students (they were recently graduated), this article bears mentioning as a unique way to create motivation and agency in students in a higher education setting. In a 2020 article, Dr. Sue Greenfield looked at the unique way podcasting could be used as a tool to support English as a Second Language

(ESL) for nursing students. (Greenfield, 2020) Greenfield's research looked at diversity in nursing in the U.S. population as a nursing profession goal. She states that although the profession's diversity will take years to match the diversity of admissions in the department, there was an apparent discrepancy between the number of diverse students admitted to the program and the number of registered nurses who graduated. The study's premise was based on the nursing shortage in the U.S. and its potential to worsen if admitted students did not complete the program. Here, the podcasts created agency in students whose mother tongue was not English to support them in their classes.

Greenfield had noticed that the podium had multiple recording devices during the more challenging technical courses dealing with complex medical surgery concepts. She knew that the ESL learners rarely seek assistance from the faculty; however, the recorders created a constant distraction. If a recorder clicked off as a tape ended, several students would run to the podium to see if it was their own. Sound fidelity was also a constant issue, as those who taped classes became distraught over lost data as the professor moved around during the lecture beyond the reach of the recorder's microphone. The faculty began to look at podcasting as a resource to allow lectures to be recorded for all students, rendering the individual recording devices obsolete. Able to be accessed at any time allowed nursing students to review the intricate material when convenient, commuting, in study groups, or at home. With two-thirds of the course remaining and the acquisition of a small digital recorder, the instructor recorded the lectures with a lapel microphone, uploaded the lecture to the computer as an MP3 file, titled the content and posted on a site protected with a password to the University's course management system.

Of the sixty-four students who took the medical-surgical course, all students completed the three examinations administered throughout the course. Six ESL learners failed the first examination but passed the second and the third with the high '70s and '80s. There was little difference in grades between the first and third examinations when the same examination was administered two years earlier. Interviewing students following the semester, the students indicated their grades had increased due to having access to the podcasts. Not every class is amenable to podcasting, such as seminars or clinical experiences, but it may be a perfect fit for some.

Raphael Travis Jr. looks at evidence rap music has to create empowerment and solace in everyday hip-hop in our last article of this section. Travis writes how music engagement has a therapeutic component, shown to help with emotional regulation, where both teens and adults often turn to music to change their mood or invoke nostalgia or comfort. (Miranda and Claes 2009; Saarikallio, 2011, Juslin et al. 2011) The author found that when looking at gender, the differences were not consistent. However, he found coping mechanisms to be less effective in males, which seemed also associated with depression (Miranda and Claes, 2009). Beyond emotional/social regulation, research in music engagement has broadened to include health and well-being, emotional, cognitive, social, and physical functioning, each valid with both adults and teens. (Saarikallio, 2011; Laiho 2004, Travis, 2013; Juslin et al. 2011) The research is necessary because it suggests that people can cope with complex issues in their lives through music engagement, and some are already using music as a strategy for help without seeking professional assistance. Scholars can create developmental approaches for music engagement within interventions by expanding on the science of music engagement. In this study, research bridged music engagement with meaningful themes in rap. The music chosen contained coping

mechanisms, cultural identity themes, and lyrics using emancipatory social justice and activism themes. (Saarikallio, 2011) Rap music also allows secondary students a familiar media where they feel validated and valued with a means to express themselves advocating individual and community health. (Juslin et al. 2011) Within the music are messages about self-esteem experiences that can bolster positive moods, minimize emotional pain, and celebrate esteem, research the influences of self-esteem and hip-hop possible for both individual and community identities. (Dixon et al. 2009)

In a study by Newman, the author discovered that commercial and non-progressive hip hop supported youth's dreams and prospects of successful and comfortable adulthood (in contrast to being seen as a victim whose only hope is unrealistic social change). (Newman, 2007) The author states this suggests particular importance is placed on esteem enhancing messages found through hip-hop that emerge from marginalization from those belonging to specific communities characterized by SES, class, ethnicity, age, or gender. Rap music is rich with themes about life experiences, actions to overcome the obstacles, strategies for overcoming life obstacles, and viewpoints on prioritizing these strategies.

Travis acknowledges that the rap genre may not be the developmental intervention choice for all (Elligan, 2012, p.38); however, the integration of the empowerment themes of self-esteem, resilience, personal growth, community, and change found in hip-hop culture has shown to transform obstacles found with race, gender, ethnicity culture and geography. These modes encourage and engage young people as individuals and as community members. (Travis, 2012) In the past, the author cites efforts that were isolated to strategies either by discipline or geographically. He believes now that social work is in an excellent position to lead these efforts by developing knowledge, health and well-being, attitudes and behaviours. The author states that

these need to be accompanied by a shared vision and strategies informed by research. Travis notes that another barrier to using the genre may be parents' and guardians' reaction to the music's content, as it sometimes lacks moral integrity and can have an extended impact on negative behaviours and high-risk attitudes. He feels parents and guardians lack knowledge of the content, as not all rap and hip-hop music denotes violence and misogyny themes. The article offers direction to unpack some of the music's significant themes that rise above lyrics and hooks. The narratives about growth and well-being in youth can also be a platform for parents and guardians to engage in deep exchanges and discussion and be open to their children's words and thoughts. The study can open a door for them to be privy to developmental strategies and actions to strengthen the relationship between parent or guardian and child.

Travis' article shows that empowerment is a highly relevant form for understanding music engagement and that there is reason in defining empowerment in terms of dimensions of resilience, growth, esteem, community and change. These dimensions are essential for those who use music for self-expression and engage in commercial rap for everyday use or in interventions. Furthermore, the dimensions of empowerment can help reinforce positive themes in content that can move past negative contexts associated with the genre, enabling educators to use research as a development prospect for guidance. This article gives a thorough outline of how rap music (as an element of hip-hop culture) is a discourse for development narratives to be used for inquiry planning and positive change for youth and the communities they value.

Music, Recording. and Affect Of Experience

Scholars have long recognized the fascination and mystery of music's ability to induce strong emotions. (Tanner and Budd, 1985) One wonders how sounds (essentially just modulating

frequencies assembled into pitches) can deeply move those involved. (Reimer 2003). Looking at how music induces emotions in both its composers and audience is even more critical since it already is effectively applied in society through film music (Cohen 2010) music therapy, (Bunt and Hoskyns, 2002) and marketing (Brunner, 1990).

For the final research question, (In what way does the exploration of sound language, audio, and technology contribute to the shaping of affective, emotional experiences? Objective 3), we first review Harkness's description of the Hip-Hop studio as a symbolic place for authentic composing and personal transformation. (Harkness, 2014 p. 85) The recording studio then represents a place where deep emotional responses to music and lyrics are both in creator and observer.

Through discourse and research on emotion in music, Patrik Juslin and Daniel Vastfjall (2008) professed two powerful statements; the first claimed that music and emotion are not a single phenomenon. The other was the claim that we can only explain the phenomenon's production by examining the underlying structures leading to music creating emotion. Only by separating the musical experiences can we sort emotions into their components, and by unpacking the causal structures responsible for the emotions, does this phenomenon start to become comprehendible. Juslin and Vastfjall created six different structures to represent these components:

1) brainstem reflexes

2) evaluative conditioning

3) emotional contagion

4) visual imagery

5) episodic memory

6) musical expectancy

It would be hard to believe that students are processing these structures while composing; however, that is how affective experience exists. They are not, but the processes are happening through the event. Jamshed Bharucha and Meagan Curtis (2010) added three extensions to these initial structures: motion, synchronization and affective musical experience. The motion indicates that music can drive movement practices, where synchronization can elicit emotion through collaborative group cohesion (such as orchestra members playing together).

In the case of affective musical experiences, emotions are a subset of that experience. Juslin and Vastfjall define affect as "that which covers all evaluative states of experience, such as emotion, mood or preference" (Juslin & Vastfjall, 2008). However, music may evoke nuanced feelings that may not necessarily seem measurable or recognizable in that they can be felt but not necessarily perceived. They may be sensed (but not be about anything) or unnameable (what the authors state as defying verbal description). These affective experiences could be more fleeting than the time it takes to recognize them as an emotion. They can occur from milliseconds to hours. (Bharucha et al. 2009) The creation of affective experiences often comes from instruments and music (the haunting sound of an oboe, the timbre of a singer's voice or the satisfaction of a IV-I plagal cadence).

Jennifer Rowsell (2020) writes of students finding affective mediation (Ehret 2018) in their ability to materialize their reflections, concerns, and beliefs through the artifacts they create. She writes that the students' emotions, history, belief, and conviction are guided by the affective intensities (Ehret 2018), driving the agency to create a stance through the stories they tell in their compositions. (Rowsell, 2020) She continues that youth will turn to the world through these stances with modes and media in interesting, playful ways. Students, therefore, composing in the

studio may not recognize these experiences while writing or even perceive the aha moment described earlier. However, they know what they have created works through the subtlety of their affective experience, creating and taking ownership of their artifactual design.

In a study created by researcher Blaine Smith, an examination of youth perspectives in the multimodal design of their digital compositions was explored in 2018. In the socio/cultural, social semiotic study designed by Smith, the author's research premise was designed to learn the students' viewpoints as they created their modal compositions using a well-known text. The text is never revealed in the study, focusing on what the students understood while composing their responses. Smith also writes of Wertsch's research with the conflict created by mediated action that results from tensions created by "agents and their mediational means" (Wertsch, 1998). Essentially this means conflict can occur between the teacher's expected instructions for the given assignment and the student's personal objectives with the modes they are using. Wertsch's research shows an understanding of the ways multimodal artifacts represent the challenging interaction of the many goals used in multimodal composing. During the analysis, the students composed for both their own goals and that of their audiences, melding their finished artifact with their own identities and beliefs. Part of the study had students use their projects as a platform to emotionally affect (and entertain) a larger audience and a channel where they could see themselves as writers. Students used drawings, images, and sounds they believed represented the emotions from the period and novel unpacked in class to meet their affective composing objectives.

Relevant to this review, one project consisted of an audio letter formed as a podcast from one of the characters in the story. The student used Audacity's audio software to record soundscapes that included music, voice narration, and sound to speak for the character's voice to

tell an authentic story. Another student wrote of choosing pictures that would have the audience exhibit a "strong emotional aura" in a written reflection. The student also used sound by choosing songs with lyrics related to the characters' experiences, melding the music with her voice narration to show an emotional crescendo of the character's experience. The student used both the tempo and tone in her selected song to coincide with her voice narration. This effective sound building enabled the student to analyze the novel while sharing her reaction and creating emotional affect for her audience.

Christian Ehret and Ty Hollett explored embodiment and affect in youth with their mobile devices in school. The researchers began the article with the staggering information that 78% of adolescents own a cell phone, using it over traditional laptops and desktop computers (Madden, Lenhart, Duggan, Cortesi and Gasser, 2013). They also cite that although many secondary schools have adopted a "bring your own device" policy, there has been limited research on literacy practices with smartphones, fewer studies yet examining the connection to the methods and learning associated with them, and even less in the investigation of felt experiences of time, feeling histories and embodiment. (Ehret and Hollett, 2014)

These multimodal concepts are rooted in social/cultural and social semiotic theory, leading to the research on youth composition and novel media. However, the authors draw attention to the deficiency in the research, noting specific elements of embodied (physical movement and feeling) experiences that can guide text composition and meaning-making. Also known as real virtualities (a term coined by Castells) (1996), this is the layering of the physical and digital, the connection of physical and digital spaces through bodily activities propelled by affective experiences. It has led to the call for researchers to use more diverse embodied ways to examine the composing practices adolescents use, positioning them as rational composers of text

and moving/feeling bodies in their social semiotic practices(Ehret and Hollet, 2014). Furthermore, a better understanding of how feelings guide meaning-making in semiotic processes can lead to a more direct understanding of literacies across different media (Lemke, 2013b) Ehret and Hollett go on to state that because bodies are forever in motion (physically, temporally and figuratively) they consider composition as passing through real virtualities where the affective experiences get created.

The authors' study took place in a charter school in the U.S. where administrators selected two boys and three girls, all 12 years of age, to participate in the 12-session, weekly digital media enrichment class; however, the focal participants were two of the 12-year old girls. The sessions focused on creating new composing opportunities through app-based digital programs. Students used the iPod touch to compose their digital stories, with daily events guided around the people, places, and things surrounding them. The findings showed that students needed to move through real virtualities not found with other modes through composing with the mobile devices and literacy processes they chose. This movement was created through exploring apps (to find the one best suited for their writing) or texts found on social network sites. They practiced mobility as they navigated the classroom and hallways joining their iPods to show what they had discovered. This action constructed movement with real virtualities through layers of space, creating an embodied practice in their composition.

With the two main participants, their histories affected their experiences and the devices in how they used them. For the student who did not have a digital device at home, the iPod was handled similarly to the technology and articles she was familiar with within her home environment. The second student had multiple mobile technologies in her home environment and described them extensively as part of her history. The students used the classroom layout as part

of their compositional environment, using felt experiences and physical maneuverability to add to their narratives. The more they moved, the more they realized the opportunities to use additional resources to achieve their composing goals. By interacting with their environment, they experienced and felt with artifacts that then became potential for meaning. Another necessary manifest of the study was through the increased awareness with time, with the realization one of the students had with the process taking a "long time."

This study demonstrates the ways digital composition should continue to expand to include feeling, embodied literacy in multimodal narratives, and the pedagogical importance of mobility as part of the everyday curriculum.

Summary and Discussion

After researching articles for this review, the resulting epiphany may be the lack of articles written on youth and their recording experiences with sound. I expected to find further research on the subject and felt fortunate to find the articles that I did. Many of the initial articles, as previously mentioned, were not suitable for the objectives of the inquiry for this analytical review. There were many articles on soundscapes, streaming, songwriting, affective experiences, and podcasts; however, few showed research with students or youth from the community. I expected much of the research to come from school participants; nonetheless, the findings seemed equal between the articles written using participants from community centers and those in school settings.

As previously mentioned, most articles found were related to music education and the use of technology within that domain. However, the focus of this review was to look at the use of technology related to sound, language and audio in everyday classrooms as a means to reform

current approaches towards curriculum—many articles related to multimodal composition with technology direct toward early literacy interventions at primary levels.

With careful search terms placed in strong digital reference libraries for scholarly journals, books and articles, I was able to find approximately 15 articles that were suitable for this analytical review. The most prolific databases were JSTOR and Proquest; however, I spent most of my time in the Worldcat reference library, where the articles were free of charge through McGill University's library.

It is important to note that although I separated the articles into categories (Identity Spaces, Agency, and Affect), many of them fit in all categories but have been divided into the one that fits best. The articles exploring individual and community identity-based composition begin with a classic example of Street's ideological literacy grounded in social semiotic theory. This study is significant in Canada because of our history with Indian residential schools and our current settlement and healing attempt with the Truth and Reconciliation Commission.

Objective I: How are social science researchers theorizing the role of sound and technology in youth recording practices?

Through spaces, domains and geographical literacies.

The single article on soundscapes with youth addressed an informal soundscape/ecology summer camp, where the recording of birdsong near and away from road noise promoted engagement with authentic technology and scientific STEM practices. The engagement was in direct contrast to the author's reasoning for founding the study due to a lack of interest and youth participation in STEM activities in the classroom. The author's goal was to change the decline in

the number of youth choosing to study academic STEM fields in higher education and the resulting lack of stem professionals in society. From our knowledge of sound and technology communication practices, we know of the potential exploration for sound to cross multi-disciplinary paths to combine musicology, sound studies, media studies and philosophy (Rodriguez, 2016). Here, through the creation of soundscapes, critical sonic literacy practices using digital technology not only create agency and motivation through social semiotics it also falls into the NLS of domains and spaces, with the environment as front and center as creating the literacy event. The author has also constructed the educational benefit of linking the project to her STEM curriculum. In the process of crossing teaching subjects (music, maths, physics and avian zoology), the campers' identities and beliefs fused into the final artifact of the completed recording.

In the earlier article written by Ian Levy and Edmund Adjapong on the school recording studio's co-creation to support counselling interventions, the authors noted that the creation process empowered students to push for inclusivity in the space for their entire school community. From their interviews, the student's comments included finding peers in need of help to develop social/personal skills by bringing them to the studio. After participating in the studio's counselling intervention, their statements conveyed an agentive desire to make the studio available to everyone to improve the school's counselling program. As previously mentioned, Levy and Adjapong see hip-hop as a domain, a space that needs subcultural capital (Magaudda, 2009) (i.e., the knowledge authenticity and skills required to participate in hip-hop production processes). They state that hip-hop is not unlike the domains of politics, business, or religion in this regard. This study is included in this section, as the studio becomes a domain/space where multimodal writing occurs, collaboratively, in community, where students celebrate their identity

through their composition. Given that the students were chosen from the hip-hop lyric writing class, they had been previously engaged in multimodal text design before the onset of the studio construction. What is interesting about this exploratory action research is that although the research had been created to solve the problem of creating a culturally competent counselling environment to help alleviate the demands on the school's counselling services, far more important developments (beyond just being a space conducive to social/emotional regulation) occurred in the process for the school community.

We see this through the higher and lower order scenes that emerged from the study. The higher-ordered themes were expected; the school studio is a shared space (increasing the development of collaborative learning *community semiotics, events and practices, identity Discourses*), the students being in control of the design choices (freedom in artistic expression through interior design *social semiotics*, *identity Discourse)*, the studio as a practice space and lab (exploring artistic expression through modal texts *multimodal literacy, identity Discourses, events and practices, affective intensities*). The outcomes that arose from the lower-ordered themes are of particular importance; feeling comfort, belonging, wanting inclusivity, authentic studio design, peer support, supporting others (*community semiotics, identity Discourses)*, as well as needing ownership, opportunity and thinking independently (*social semiotics and ideological literacies*). (Levy and Adjapong, 2020)

The higher and lower ordered themes came from interviews with the students, who claimed the studio enabled them to build confidence, motivated them in preparation for performances, and gave them a desire for peer support through feedback. Furthermore, it presented an opportunity to get to know other students through their music, a space to realize their rap music to be seen than more than just a "hobby," and most importantly, a desire to share

this space with others to help support them with their needs, and inspire them in their creations. The students would seek out others in need of help and bring them to the studio, having voiced the wish to make the studio available to all students, knowing that it would improve the school's counselling program. Most importantly, these students of colour (most of them marginalized) felt a sense of belonging and comfort inside the school environment, something rarely found in low SES, inner-city communities.

The ideological model also fits the students at the Community Music School, who used their praisesong to create change in Detroit's economic and political circumstances, celebrating and embracing their identity through odes of love to the city of Detroit. Their tribute themes also incited inspiration, strength, resilience and adversity, moving the community to civic and political change. The authors state that this holds interest to secondary educators and literacy researchers in curriculum design that extends beyond school and community. They maintain that collaborators in students' educational lives need to acknowledge the complex ways multimodal literacy as a songwriting practice can rethink the boundaries of spaces and places and meaning-making processes outside the classroom environment. Educators should be encouraged to recreate school spaces to instill an engaging curriculum, appealing instruction, and participatory practices. Watson and Beymer recommend that school communities establish argumentative writing and reading texts built on community themes that provide opportunity and meaning-making, enhancing the literacies they already use aligned with educational standards. They also suggest that the writing prompts focus on youth lived experiences and knowledge of place, then use these literacies in school contexts across the curriculum. Researchers insist that educators design literacy practices to broaden what is understood as place pedagogies in ways conscientious to the student's needs and identities. In Watson's and Beymer's study, the

participants became aware of the meaning of civic engagement through their writing of praisesong, leading to critical hope and political possibility, however most importantly to the future understanding of what it means to be a citizen. They then encourage other literacy researchers to envision how youth can develop their literacy practices across space and place, remaking and creating positions of justice-aligned environments.

Through individual and community identity-based composition.

With the gap in health status between Aboriginal peoples and Non-Aboriginal Peoples in Canada, this study looks at creating knowledge with Aboriginal youth and elders in an Indigenous community in Western Canada. Using arts-based methodologies and digital storytelling workshops, stories were created through podcasts and vodcasts with elders and high school youths, citing how colonization has affected Indigenous Peoples' healthy eating habits by reducing hunting-gathering and harvesting their traditional foods.

The Prevention and Preservation project focused on continuing the Aboriginal cultural community by respecting their language, culture, identity, and geography. Grounded in ideological literacy, the project represents a socially situated literacy practice, where the Indigenous peoples identify and begin to reclaim power taken from them in their past and are using digital modes to reclaim that power. Integrating socio-cultural and social semiotics theoretical frameworks, the collaborative nature of the youth and elder's multimodal composing is embedded in Gee's Discourses of identity, crucial to preserving the culture of a people who have lost so much. Research on collaborative multimodal composing has shown many benefits. (Hepple et al., 2014) Studies show that youth seem to be more engaged by collaborating in

modes than through traditional writing assignments, as they tend to build on each other's strengths and learn new skills from their peers. (Ho et al., 2011; Wikan et al., 2010; Beach & O'Brien, 2015; Ito et al., 2010) In this study, I would imagine the reverse would be in effect, with students supporting the elders in the project, even with the advent of the workshop implemented at the beginning of the study. I believe the collaboration between youth and elder inspires agentive, motivating experiences with both groups, in the stories learned from the elders, and through the youth's technology, in both groups, the knowledge received from learning better nutrition awareness to combat diabetes in their community. Multimodal collaborators are often exposed to their peers' alternative thinking processes, allowing for the adaptation of their thinking processes (Beach et al., 2016), allowing for growth and strengthening in the community. Once again, the Canadian study is grounded in New Literacy Studies (identity-based discourses, social semiotic theory, domains and events, and agentive discourses).

In another study examining collaborative learning in the music studio, King's research is interesting because it demonstrates how learning technology can assist students to complete a practical task (in this case, the drum kit recording) independent of the learning technology support. In education, collaborative learning has been discussed in the literature with constructivist theories throughout the latter part of the twentieth century (King, 2008). One of the principal thoughts on social constructivism is that the learner will construct his or her ideas in a setting with their peers; therefore, students develop greater insight into their learning through collaboration. For this to happen, there must be trust between the collaborators, in which all involved bring and are willing to put forward their values and goals. Unfortunately, the more people involved in the collaboration, the more complex the relationships become. As learning communities with diverse values and experiences, they were developing the trust is necessary to

allow the collaboration to be successful. This is facilitated by an equal interest in the project at hand.

The two findings on songwriting as identity were not only very different, they were also almost opposite to each other in their formation while still occurring in similar domains. In the first study, a single participant (Christopher) used songwriting as a form of resilience to move through traumatic personal experiences. In the second study, a group of students who collaborated in a Community Music School wrote Praisesong as a tribute to their city. As far apart as the songwritings' initial reasons were, both artifacts resulted in the same core features seen in our initial framework. Both were involved in creating agency as a proactive, self-organizing, self-regulating and self-reflective concept (Bandura, 2006), changing the environment around them and their actions within the environment. Christopher, using songwriting as a means to acquire solace and express emotions he was not able to before, and the students at the community school to realize civic and political change through their community. Both songs became a literacy event through the practice of songwriting and studio recording, and both studies have the students creating song composition as a way of embracing their identity. Looking at the two articles through the social semiotic framework lens, the songwriting model has cultural aspects, material features, and social history within its structure. Christopher had difficulty expressing the trauma he was experiencing but could release the emotion through GarageBand composition instead of using traditional linguistic modes. Looking at Michael Street's writings on ideological and autonomous literacy events, it is clear to see how both studies follow Street's ideological model of the two compositions being belief-based and value-laden. We can see how Christopher's songwriting embeds cultural and social aspects; his Father's leaving, his brother in jail, the deaths in his family, all essential factors that motivated and

engaged Christopher to write his songs rooted in his discourse of social-cultural identity. The same could be said for the students in Detroit who used their composition modes through Praise song. Both studies had students' experience agency, driven by their subconscious affective intensities (Ehret and Holland, 2014), symbiotically through the communication with their artifacts.

In the Adjapong/Levy study on studio design by the students, community identity would have automatically been rooted in the studio's design, building, and marketing, bringing students, staff, and community builders together in the project.

Objective II: What are the theoretical conceptualizations of the role of sound, audio, and technology in the development of resilience, agency, motivation and empowerment in youth through studio recording?

Through hip-hop/pop songwriting, music therapy, and creative podcasts.

With hip-hop traditionally residing in a cultural context outside school settings, young people create beats, dance, hip hop music, and other art forms in-home music studios and street corners. These arts remain under-examined as virtual spaces for education and need to be looked at by researchers to create rich and culturally responsive learning contexts for black youth. The authors believe that further understanding how black males create authentic cultural spaces for hip-hop and informing researchers and educators to implement a hip-hop-based curriculum could increase school engagement and life aspirations using the music genre as a starting point to teach academic skills. (Hill, 2009; Morell and Andrare, 2002, Newman, 2007; Stoval, 2006; Prier and Beachum 2008)

Addressing the second objective, researchers in the Irby study examined the recording of hip-hop with young black males as a means of inquiry into reaching and creating agency with black youth in schools. Here the research stands not as a means of examining multimodal texts but through viewing older black males who produce hip-hop to understand how to reform the mindset towards black youth in education.

With black males being at the bottom or near the bottom of educational assessment, current school reform shows that getting strict with a no-excuses policy many schools use to govern black youth is not working. (Irby et al. 2013) Schools seem to think that this will raise achievement levels; however, these policies only result in less freedom, creativity, and autonomy for the youth of colour in their school lives. Schools should then reconsider whether classroom curricula engage or stifle spaces for creativity and autonomy for black males within the system. With findings of the lack of interest with extreme wealth to use hip-hop as labour, suggestions that protecting the credo of "you need to get an education to get a job" is of little motivation to youth of colour. The authors have shown that linking school to the labour force will do nothing except push black males away. Especially those whose credo consists of "keeping it real." The study's data then places importance on schools' authentic ways of framing opportunities for creativity, autonomy, collaboration, community, and the freedom to be something bigger than just school. With hip-hop providing a space where black males perform well, this study gives researchers and teachers a means to look closely at the everyday lives of black males to focus on their successes. Honouring these men and seeing them as agents of collaboration will help teachers understand them on their terms, giving them a sense of worth, increasing their self-esteem and sense of belonging, and potentially adding agency engagement within traditional education spaces.

This research investigates black males who produce hip-hop as labour, not for wealth accumulation or financial freedom, but for the power to control artifacts of their creation. Included in this was a sense of community pride, authenticity and involvement in something bigger than themselves. When relating this study to school environments, research shows black youth continue to be near or at the bottom of assessment and that coming down hard on them with a no-excuses policy stifles the spaces for creativity and autonomy for black youth within the system. Research also showed that repeating the adage of "you need education to get a job" had little use as a motivating factor for these marginalized students, as they needed to feel part of something bigger, something linked to their community. The second study took a direct approach to hip-hop music and agency/empowerment in youth, this time through music engagement. Similar to the study with studio design, the author looked at the coping mechanisms of black youth and their link to depression. Here the genre offered solace to help youth cope with social/emotional regulation where both teens and adults turn to music as a therapeutic component to change their mood and offer comfort. In this study, the research bridged music engagement with meaningful themes and gave secondary students space to feel validated and valued to express themselves and advocate for their community, which created empowerment and motivation. The Travis study continues these themes; however, it adds the importance of student value and validation as a means of agency and engagement.

Although the Travis and Irby studies are very different, they have common themes important to curriculum reform. By implementing hip-hop music into the curriculum, we can change the attitudes of black youth by demonstrating that we respect who they are through our actions as educators. Bringing these multimodal texts into the school can also help repair some of the stigma associated with black youth for decades, as drop-outs, "special-education" kids and

underachievers. This will help restore their pride and allow them to celebrate their discourses and identities. Using these modes can lead to the affective experiences that research has shown can induce engagement and motivation. Educators need to rethink the curriculum using hip-hop as a tool to augment their learning, increase their inclusivity, self-esteem and self-worth.

These themes can also be found in the Kinny study with Christopher. Kinny examined how he became increasingly highly motivated and engaged with participatory/ textual production, entirely in contrast to his school performance. Kenny points out how her participant's teachers might be interested in learning the type and amount of writing he was producing for his own means and alludes that these educators might be surprised at the role his writing takes in his health and well-being. She argues that literacy functions beyond a site of refuge in his case and that pedagogies could be developed to help other students understand how greater societal and institutional forces influence their lived experiences. (Kinny, 2012) From there, educators could foster empowerment and agency in youth and work toward change through social justice. Kinny adds that she is aware that not all students may be comfortable in sharing their experiences and emotions with their peers in a classroom setting; however, the lyrics could be used in a poetry unit or through journaling which could go unread by the teacher, allowing a safe space for the students to express or grapple with the challenges they face.

The Kinny, Irby and Travis studies are similar in that they promote agency, empowerment and engagement in students and are rooted in social semiotic theories with students creating new information from the combination of visual, aural, linguistic, spatial and gestural aspects. (Hodge and Kress, 1993) Allowing students of colour to create modes influenced by the student's social history and cultural background ties with Street's theories of ideological literacies, which state that literacy cannot be removed from a student's social settings.

(Street 1993) They are also rooted in Gee's theory of multiple language Discourses, signalling their identities. Educators should have a renewed interest in using hip-hop, rap, and songwriting as part of their everyday curriculum with this knowledge at hand.

In the Levy Adjapong study on studio design, the students were motivated to share their counselling practice's success through hip hop composition and wanted others in need of support to experience the same. (Levy and Adjapong 2020) Another highlight in the findings for motivation and agency shows that the youth felt the space (the recording studio) would allow them to receive support from their peers to generate confidence and self-efficacy.

Two interesting articles were found with researchers using podcasts with young people to create agency in very different ways. The first used podcasts to examine a literary analysis of Shakespeare's Romeo and Juliet with a blended grade nine class; the second was used as a resource for educators to include podcasts in the classroom. In the first article, at-risk students with mild learning difficulties experimented with mini podcasts to develop language and critical thinking skills. Designed as a research project, the author focused on combining in and out-of-school literacies with digital podcast recording practices to engage the students and modernize the classroom's composition process. Once again, agency and motivation were created in students through the practice, as these were students who admitted they hated reading and had difficulty concentrating while doing so. In addition, we see how agency emerged through their careful critiques and playful podcasts demonstrating their application of critical thinking skills. The multimodal project helped solve the problem of relevance and inadequate engagement with students and crossed multiple teaching subjects in the process, including music, English language arts, history and geography. Students could bring their discourses to the podcasts, using music, style of speech, and cultural/social settings to represent their identities. Approaching podcasts in

this way is grounded in social semiotic theory, with the combination of modes creating new information on an old story shaped by influences from the student's cultural background and social histories.

However, what would happen if an educator did not have Faughey's talent at creating a project or unit using multi-literacy practices? Many educators know of the importance and crave the idea of using digital media and multimodal texts in their practices but may not know where to begin the process. Researchers in the second article address this for students and teachers by providing an in-depth resource to create podcasts and vodcasts into all teaching and learning. The article covers learner needs, tips for discovering the intended audience, links to instructional quality, which provides scripts, study guides and other supplemental materials. Collaborative projects are a feature in the article that examines shared audio projects through reading buddies, providing an authentic audience for their work to work together towards a common goal. In addition, educators can access podcasts to use as language lessons offering support materials and audio programs.

In the second article related to podcasting with this objective, the genre is used to motivate student retention in a nursing department in the US. These students were not necessarily students in secondary schools but recently graduated students in their first year of nursing. With the US government trying to increase the diverse demographic of nurses with English as a Second Language (ESL), many students had difficulties with the academic language used in the lectures, which led to failing their exams. In the study, Dr. Sue Greenfield looked at the simple way podcasting could support the students by reviewing lectures on their own time. Their final grades showed substantial increases in marks from the initial exam to those written after the recording and distribution of the podcasts. In addition, the study shows that the resulting

motivation and agency from their use led to increased grades in making the material available through the podcasts.

The benefits of student-created podcasts are vast. Youth who construct podcasts on various topics forge significant opportunities for creativity. Critical thinking skills are needed to put the audio files together, which becomes similar to many aspects of traditional composing; positioning, layering, and the splicing of musical and narrative chunks of audio, creating the potential for critical decision-making. Podcasts also develop a sense of pride in students, as the final product serves as their artistic expression (Bolden, 2013). Finally, a significant advantage of choosing a podcast as multimodal text over written text is the inclusion of music directly into the artifact, giving students a space to listen and engage with meaningful music.

One of the best definitions of affect in a text comes from an article called the Power of Affect in Live Performance by Deborah Kapchan. She describes affect as being "fraught and slippery' in meaning, with barely having words to describe them because affect remains the underbelly of felt phenomena. (Kapchan, 2017) She continues to describe it as neither definitive emotion nor a receptive state of one's awareness.

Objective III: In what way does the exploration of sound language, audio, and technology contribute to the shaping of affective, emotional experiences?
Through student reflection on multimodal writing, and mobility in composing with virtual realities.

With difficulty in the description and definition, affect becomes even more challenging to measure, so I included the Bharucha and Curtis article in the analytical review. With the musical

experiences we call emotions separated into components, Juslin and Vastfjallin (2008) bring us closer to the causal structures responsible for an affective musical experience, tangible and palpable things, whether one believes in them or not. Bharucha and Curtis added to brainstem reflexes, evaluative conditioning, emotional contagion, visual imagery, episodic memory and musical expectancy by including motion, synchronization and affective musical experience; however, I would argue that the same components used in emotional experiences in music make up that for affective intensities as well. I would also argue that apart from musical expectancy, if we left it as expectancy, these same components could be used for any affective experience, musical or otherwise.

In Smith's study, the research takes a different approach to look at multimodal design through the student's viewpoint. Previous research was conducted looking at youth motivation objectives through their writing, including a study created by Smagorinsky (1997) where he used interviews with students to examine how they used writing to express their feelings, emotions, and thoughts. In an ELA context, Smagorinsky explored how students made emotional connections to certain characters in the literature in class and then attempted to move their audiences in the same manner. Once again, multimodal projects serve as an empowering podium for students to implement their cultural experiences and agentively convey their identities to others (Cimasko and Dongshin, 2017; Halverson, 2010; Hull and Katz, 2006).

Researching affective intensities is a relatively new field in literacy practices, led by Christian Ehret's work, who identified the ways multimodal practices with youth guide unconscious affective experiences and their synergy with artifacts. (Ehret & Hollett, 2014; Zapata and Horn, 2017) Smith then describes how digital literacies tie in nicely with multimodal literacy composing by demonstrating how teens are inspired to create using digital tools. (Smith,

2018) Smith also discovered that students could recognize, identify, and use different modes' semiotic practices to design and achieve their writing goals, calling it meta-model awareness. He found that they were also able to explain their decisions in the designs they took, connecting the way they use their modes to the literature's grammar elements, wanting them to work together smoothly.

The exciting element of the study was the way Smith had the students meet their affective goals. They were asked to incorporate what they believed would represent or portray emotions from the novel and period. The student who used sound and audio to represent her vision of the characters' experiences felt that integrating music that represented the novel's tone would give an overall feel to her podcast. She used a specific instrumental piece of music to represent one of the characters' death, supporting her affective connection to the music. She also recorded her voice, gradually increasing the volume in her narration to represent the emotional intensity of another character's experience.

Our students can use much more of their affective experiences than we allow in the classroom, knowing that it creates agency, and motivation should be enough for educators to want to incorporate multimodal literacy composition consistently in the curriculum.

One of the major takeaways from the study on embodied composition in real virtualities was the concept of mobility/movement with the students. I have experienced this in my teaching, with a young grade two student who, during math, needed to stand at his table and twirl every time he completed a problem. Had I attempted to constrain this movement, the resulting behaviours would have interrupted the class, and little work would be completed. With this study, had the motion been restricted, the resulting artifact would have been less intricate, and their creativity and perception of their narratives and the resources available to them would be stifled. This

notion is tremendously important, as it aligns with some of the principles of Universal Design for Learning (UDL), an approach introduced in pre-service teaching adopted in schools throughout North America. UDL theorizes that all students should benefit from learning suited to their needs, including those who do not receive school accommodations. The first recommendation in UDL is that all material provided should be in digital format, which would lead to a natural implementation of multimodal design in all subject areas.

When UDL is applied appropriately, curriculum designers create products to meet students' needs with various abilities, learning styles and preferences. The first offers multiple means of representation (seen in the choice of apps given to the two students in the study). The second offers multiple means of action and expression (with the students choosing to create digital stories with Flat Stanley). The third offers multiple means of action and engagement (seen in the girls' movement and interest in finding semiotic resources in the school). UDL can also be applied to physical spaces with flexible seating to ensure they are welcoming, comfortable, attractive, and functional, which can only add to the students' affective experiences in creating their artifacts.

Conclusion

A significant takeaway from this analytical study is the importance of including multimodal writing strategies in all schools' curriculum, as it is clear to see how this form of composition can be beneficial in educational settings. For example, in one inner-city school, students dropped in during free time to work in the recording studio in my classroom. Although the equipment (omnidirectional microphones, soundboards, midi interfaces) was available, they would prefer to work in GarageBand to create beats, rap lyrics, and melodic riffs. I realized that

they were coming on their own time to create what seemed to be a literacy event/practice and began to question how this could be a motivational tool. Research shows that the increase of digital media continues to direct how teachers look at the curriculum and the educational benefits of multimodal projects created by youth link to that motivation. (Smith, 2018)

Multimodal literacy projects conducted by secondary students then seem ideal for solving problems of relevance and inadequate engagement. Examining specific multimodal projects that would relate to music teaching resulted in this thesis inquiry. Multimodal sound and recording technology both benefit from crossing multiple teaching subjects, Math/Physics (waves and frequencies), English Language Arts (composition) and Music (composition). Using sound recording allows the student to tap into the historical, social, individual, cultural, and material expression of identity (Prior, 2006). The artifact of the completed recording then becomes fused with the individual's social identities and beliefs. (Gee, 2012) Across many contexts, multimodal compositions in digital settings characterize as a profoundly social and collaborative process for youth. When composing outside of school, many teens already incorporate multiple modes made with visuals, sound, text and movement to create various digital projects to be shared with receptive, authentic audiences (Ito et al., 2010). Research shows how collaboration is also an intrinsic aspect of digital multimodal composing in secondary classrooms where students often work in dyads or small groups, sharing labour, giving feedback, discussing modal decisions and teaching each other. (Beach & O'Brien, 2015; Smith, 2014).

Rooted in social semiotic theory (Hodge & Kress, 1988; Kress, 2010), multimodal composition stems from the idea that many modes are integral in meaning-making. These modes are socially and culturally embodied sources for communication, including but not limited to sound, visuals, text and movement (Jewitt, 2009; Kress, 2010), containing specific potentials for

communicating messages. The composition of multiple modes is a vital arbitrator during the composting process (Dalton) With recent developments surrounding the Black Lives Matter movement, there is much healing to be done with people of colour and bringing validity and value to youth in school is an excellent way to begin. Rap and hip-hop are not only celebrated by people of colour, but many Caucasian, Asian and brown skin students embrace it as well. Introducing it into the curriculum would not be favouring one group over another. To help with healing, creating grants for professional and amateur hip-hop artists to work with educators to create an appropriate, authentic curriculum would significantly reduce the divide (and pain) between the black community and groups from other demographics. In addition, making the curriculum a resource available to all would allow access to educators who may feel they cannot teach material to which they are not culturally connected.

Although this analytical review focuses on studio recording, there are many ways to incorporate digital songwriting, podcasts, rap and soundscapes across all subjects. All schools are equipped with the technology needed to perform amateur studio recording, as each classroom has at least one desktop computer with recording software built into the drive, whether it is an Apple or Microsoft device. Many of the student's mobiles also incorporate the same technology making it more than possible for educators even in the most difficult inner-city communities to achieve these practices. To solve the difficulty of classrooms having a single computer (or no computer), many secondary high schools have computer rooms, where an investment in a set of headphones and the right software can create the learning environment needed to achieve multimodal design goals objectives. Should educators find it challenging to implement multi-literacies into the curriculum, extracurricular classes could implement the literacies using community members depending on their budget. The second takeaway from this review has

been the power of affective experiences in composition to create motivation and agency in the process, mainly through the creation of podcasts and songwriting. Without offering students the chance to compose in multimodal practices, affective experiences are less like to happen in traditional writing modes. Allowing youth to create movement in themselves and their audiences can create agentive possibilities that can only lead to increased motivation and engagement in school if guided and nurtured correctly. Encouraging teachers to use songwriting and podcasts as multimodal resources to increase affective experiences in their classrooms may be challenging at first, as many will feel they do not have enough musical or technological knowledge to achieve this.

Here I reiterate the importance of creating professional development for educators, using community members by applying for the many grants available to schools for these processes. Should grants not be available, often asking around in the student body produces a teen who has experienced these programs, and an afternoon's workshop with them would solve the problem. In addition, many students have the technological knowledge to achieve these goals, and if they do not, they enjoy experimenting with the software to discover it for themselves. This analytical review's last takeaway would be the importance of using multimodal practices to increase agentive experiences from a social/cultural semiotic framework. Most literature on culturally responsive, relevant pedagogy in education has touted the support of a curriculum wealthy in content significantly suited to youth experiences. With teaching rooted in situational and technical processes, it is most effective when factors such as prior experiences, ethnic identities, community settings, and the cultural backgrounds of both teachers and students are included (Gay 2010 p.21). Gay continues to argue that educators must account (pedagogically) for their students' identities, with every classroom using material unique to the students' cultural and

heritage practices. (Paris and Alim 2014) In turn, this material's inclusion will indicate to students (from their teachers) the value of their preferences and experiences. The potential of increased student empowerment, resilience, self-esteem, connection and growth will lead to agency and motivation using a culturally responsive curriculum.

I initially began my thesis journey in inclusive education, wanting to support students and parents/guardians in their journey through diverse-needs education. Halfway through, I realized that I already knew how to help these families; the system had to change, and I wanted to be a part of it. Switching into graduate studies in Education and Society led me to this thesis inquiry. I have discovered that more than enough research is available to advocate for policy change with our leaders, push for pedagogical development with our educational ministries, and urge curricular improvements with our educators. The question then to be asked is; are teachers willing to change their teaching methods with the traditional literature they are accustomed to using year after year? With the Faughey study, we saw how podcasts created amusing, exciting and engaging artifacts reviewing classic literature like Romeo and Juliet. Would it not be possible to have students compose their hip-hop versions of Of Mice and Men? Or To Kill a Mockingbird? After what Hamilton has done to introduce teens and boost the cool factor of history departments across North America, imagine what we could achieve with hip-hop and other multimodal designs. (Smith. 2021)

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