Composing Meaning through Multiliteracies and Multimodality with Adult and Adolescent Learners

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Abstract

The research from this ongoing nationally funded study explores multiliteracies and multimodality in secondary schools and adult education settings including a museum, dance studio, and French language learning centre. There are 30 participants to date in the study. Using constructivist grounded theory methodology, the study draws upon data from face-to-face interviews, observations, document analysis, and original film footage of learning spaces. Social semiotics theory is used in this paper to articulate how a range of modes (visual, linguistic, and gestural) affect teaching and learning. The findings suggest that multiliteracies and multimodality foster creativity and criticality, engage marginalized learners, and provide greater versatility in meaning-making practices.

Keywords: multimodality, multiliteracies, social semiotics, adult education, secondary school education

Although multiliteracies theory and the use of multimodalities have been taken up widely by teachers in primary school settings, the value of these approaches has not yet been widely acknowledged in developing effective teaching and enhancing learning to build various literacies for older learners. Bringing multimodality and multiliteracies into adult and adolescent education can enhance pedagogy and curricular design. While reading and writing are important mediums of communication, multiliteracies argues for the expansion of our definition of literacy to include a greater range of modes. Multimodality is defined by the combination of two or more modes of communication– visual, oral, written, gestural, tactile, or spatial – to convey meaning. This qualitative research project uses case studies in secondary classrooms and within a range of adult learning contexts to explore the work of Canadian educators who are harnessing the power of multimodality and multiliteracies to augment the overall quality of literacy teaching and offer a more equitable approach to learning by opening up opportunities to use a variety of modes to convey thoughts.

Drawing upon a research study funded by the Social Sciences and Humanities Research Council of Canada (SSHRC), this paper begins with a brief overview of the literature on multiliteracies, introduces the theoretical framework of multiliteracies and

multimodality (as informed by social semiotics theory), and then elucidates the research design and constructivist grounded theory methodology used in the study. Subsequently, in the findings and discussion section, we draw upon data from interviews, observations, document analysis, and original film footage to analyze participants' experiences with multimodality and multiliteracies in greater depth. The focus in this paper will be on the use of the visual mode, linguistic mode, and gestural mode in these learning spaces, which include a museum, dance studio, multicultural centre, French language learning hub, and secondary school classrooms. The findings and discussion examine multiliteracies in relation to creativity and criticality, marginalized learners, and versatility in meaning making practices.

Multiliteracies and Multimodalities

The New London Group (NLG, 1996; Cope & Kalantzis, 2000) first coined the term "multiliteracies." As the term suggests – "multi" indicates that literacy in the 21st century should be viewed in the plural. The main principles outlined by the New London Group over twenty years ago was that education in theory and practice needs to embrace a strong commitment to incorporating multimodality; cultural and linguistic diversity; technology; and a social justice ethos.

Educators face challenges teaching in what Barnett (2000) alludes to as a time of "supercomplexity" (p. 257). To understand the relevance of multiliteracies, it is important to frame the context in which adult and secondary educators are working. The larger socio-political-cultural landscape must always be taken into account as literacy teaching and learning are viewed from a multiliteracies perspective as socially situated practices (Street, 2003). In what follows, we provide an overview of the theory of multiliteracies, focusing on key aspects of multimodality that educators may use to support critical and creative approaches to learning.

Researchers in the field of multiliteracies (Fairclough, 2014; Kalantzis et al., 2016; Serafini, 2014) recognize two significant world changes. Firstly, an increasingly globalized world sees increased cultural and linguistic diversity within its society (Nordin et al., 2013). Secondly, in a more complex world, multimodality must play an important role in teaching and learning, as developing literacies should not be limited to acquiring reading, writing, and numeracy skills. Attaining literacy capabilities may be enhanced through teaching opportunities that engage learners through drama, video, music, or dance. Jewitt et al. (2016) emphasize that each modality has its own strengths for making meaning. They state, "the pointing gesture cannot, in fact, be transcribed without losing some of its precision. Indeed, social semioticians have argued that any attempt to translate something into words always involves a kind of 'transformation' or 'transduction'" (p. 22). Thus, cultural diversity, multimodality, technological advances, and social justice are the hallmarks of multiliteracies pedagogical theory that continues to evolve, recognizing that language is always socially situated, power-laden, and shaped by context.

In its complex diversity, contemporary society calls for collaborative and diverse work environments where teamwork and mentorship occur (Kasper, 2002; Nordin et al., 2013). At the same time, educators must consider pedagogical changes and developments that aim to equip students with the ability to critique power relations and build transferable

skills by engaging them in multiple literacies (Cummins, 2006; Mills, 2009). Multiliteracies discourage the standardization of education and emphasizes the need to "place a premium on learners' experiences, social participation, use of mediating devices (tools and technologies), and positions with various activity systems and communities of practice" (Gee, 2008, p. 100).

Various scholars (Cummins & Early, 2015; Cummins et al., 2005; Cumming-Potvin, 2007) capitalize upon cultural and linguistic diversity as scaffolding for successful language acquisition and cultural integration. Giampapa (2010) recognizes that it is not enough to view "literacy as a discrete set of skills, [but rather] literacy as a set of socially and culturally constituted practices enacted across and within social and institutional spaces" (p. 410). Scarino and Liddicoat (2009) describe learning through scaffolding as "a process of making connections – reorganizing unrelated bits of knowledge and experience into new patterns, integrated wholes" (p. 26). Zaidi (2020) notes in her research that framing linguistic diversity as an asset builds literacy practices that go "beyond sound/symbol recognition, and structuring a language awareness mind-set that, it is hoped, will continue throughout the students' schooling" (p. 286).
Cumming-Potvin states, "multiliteracies allow students, schools, and communities to navigate unprecedented cultural, social, economic, and political changes" (2007, p. 484).

Many empirical studies suggest multimodal learning enhances literacy, such as Wilmot et al. (2013), who explore Indigenous secondary students creating a graphic novel as a health education tool; Hughes and Morrison's (2020) case study of makerspaces; and Tang et al. (2011) who examine students using multimodal integration to attain concepts in science. By engaging learners in dynamic lessons that employ multimodality (Cloonan, 2008; Shohamy, 2009), learning becomes more "open, dynamic, energetic, constantly evolving and personal" (Scarino & Liddicoat, 2009, p. 16). Multiliteracies and multimodality ensure that educators provide their students with the necessary tools and techniques to expand their development of critical thinking and methods of communication (Coiro et al., 2017; Cope & Kalantzis, 2015; Jewitt, 2008; Rowsell & Walsh, 2011).

Michalovich (2021), in a case study, found that newcomer youth in a school setting participating in digital multimodal composition used role play "to experiment with ways of repositioning and concretely representing their imagined identities" (p. 39). Jewitt (2006) also examines reading and writing in computer applications and gaming contexts that allowed for extensive use of multimodality, recognizing the negotiation and interpretation of images, font styles, space, and colour on digital screens. Jewitt (2006) criticizes traditional views of literacy, stating, "this fails to connect the kinds of literacy required in the school with the 'out-of-school worlds'" (p. 330). Thus, in-school education must reflect out-of-school life to equip students with appropriate skill sets that will aid them in reading, communicating, and negotiating the quickly evolving modern, complex world (Gee, 2003; Pierpaolo & Pace 2015; Lotherington & Jenson, 2011).

Empirical research in the field of multiliteracies continues to evolve, but there is a general consensus amongst researchers that multimodality has been underrated in thinking through effective teaching and learning (Burgess & Rowsell, 2020; Holloway & Gouthro, 2020; Stagg Peterson & Robinson, 2020). Multimodal pedagogy broadens our understanding of what counts as literacy.

Most research on multiliteracies that focuses on the importance of multimodality to enhance learning has been done at the K-12 level. Within the field of adult education, however, attention has been paid to the need to support critical approaches to literacy (Crowther & Tett, 2011), including digital literacies (Smythe et al., 2016) and ways to critique ideological underpinnings through a discursive review of recent adult literacy scholarship (Perry et al., 2018). In addition, extensive research has been done on the importance of arts-based multimodal learning in both formal and community-based contexts (Brigham et al., 2018; Clover, 2016). For example, Jones' (2019) qualitative research conducted with disenfranchised women of colour explores the use of multiliteracies and critical literacy. Jones (2019) explores the power of visual literacy through visual arts and museum visits and oral literacy through storytelling in engaging adult learners in critical social and personal reflection "to foster learning, healing, and community" (p. 50). Arts-based approaches and community education programs for adult learners often incorporate multimodality within their pedagogical design. We believe that multiliteracies offers a useful theoretical framework to inform this kind of teaching. As Street (2003) points out, "literacy practices need to be contextualized within other communicative modes" (p. 83). Social semiotics, as it will be discussed next in this paper, enrich literacy practices by opening up possibilities through multimodal communication that considers the analysis of larger social, political, and ideological stances as being inherent to any kind of language learning.

Multimodality and Social Semiotics

Social semiotics serves as an integral aspect of the theoretical framework within multiliteracies to explain the significance of using multimodalities to enhance learning literacies. Multimodal theory has been evolving over the last fifty years with its antecedents in the socio-linguistic and semiotic work of Roland Barthes (1957/1972;1977/1978) and Ferdinand de Saussure (1916/1983), and later in systemic functional linguistics (SFL) conceptualized by Michael Halliday (see Halliday,1978; Halliday & Hasan, 1985/1989). Paugh and Wendell (2021) note that SFL "provides a framework for connecting language, context, and conceptual development" (p. 124). Building on the foundations of Halliday's SFL theory, the Newtown Semiotic Circle was founded in the 1980s, including theorists Gunther Kress (1993, 2003), Theo van Leeuwen (Kress & van Lewan, 2001), and Robert Hodge (Kress & Hodge, 1979) who developed social semiotics theory, which contends that multimodal resources contribute to meaning making.

Social semiotics is a theory of communication "which construes that all communication practices are interlinked with social and cultural practices" (Yamada-Rice, 2015, p. 309). It is a theory that explores how meaning and representation are generated through languages, images, objects, or other modes in specific social contexts. Social semiotics "led to the subsequent emergence of multimodality itself, [in which] the principles developed in relation to language were applied to different communicative modes" (Mavers & Machin, n.d.).

Kress (2000) provides an example of social semiotics analysis through an examination of an everyday object – a bottle of mineral water:

we see the labels, and treat them, however fleetingly, as texts of language and image; we notice whether the bottles are glass or plastic; with some bottles emphasizing their materiality and others disguising it; we notice their color: green, or blue, or clear, and we notice their shape: squarish with moulded patterns (denoting foreignness or "Frenchness")…The reading of the bottle as text points to one domain of use, the semiotics of 'taste' in the sense both of 'what we taste' and of lifestyle…This is 'reading' as a semiotic cultural practice in which it is 'meanings' as much as water which are 'consumed.' (p. 188)

Thus, social semiotics analysis focuses on how meaning is construed through social environments, personal interactions, and cultural practices. The meaning of the bottle of mineral water is inferred through complex relations of materiality and multimodal communication. Social semiotics theory provides an analytical approach to conceptualize literacy more broadly.

As a part of multiliteracies, and informed by multimodality, the NLG (1996) put forth the pedagogical theory of *Learning by Design* which argues that "the concept of Design emphasizes the relationships between received modes of meaning (Available Designs), the transformation of these modes of meaning in their hybrid and intertextual use (Designing), and their subsequent to-be-received status (The Redesigned)" (p. 81). (See Kalantzis et al., 2016 who further developed *Learning by Design* and the knowledge processes.) These stages of *Learning by Design* can be perceived as pedagogical components that draw upon multimodality to engage learners in opportunities to identify semiotic resources that will help them develop meaningful communication of their ideas.

Current theories of multimodality believe that in all social transactions, certain modes have greater affordances or limitations to contribute to meaning making. Moreover, meaning making always involves social and cultural affects (Kress, 2010). Intrapersonal interactions, cultural mores, and societal norms influence how learners engage with multimodality. Jewitt et al. (2016) write that "ideology and power are central concepts in a social semiotic analysis…..Social semiotics tends to focus on everyday, almost 'banal' or 'mundane' artefacts produced outside institutions (say, a child's drawing) as sites of ideology" (p. 60). Utilizing social semiotics elucidates key concepts from our data as we are looking to understand how an educator's pedagogy could contribute to a student's learning and larger social and cultural milieus that inform meaning making.

Research Design

Through this research study, the development of the web platform https://multiliteraciesproject.com/, has allowed for the presentation of teaching exemplars to highlight some important components of the use of multiliteracies and multimodality in formal and community-based education settings (Holloway, 2021). According to Butterwick (2014) as well as Gouthro and Holloway (2013), there are shared principles in teaching in K-12 school contexts and teaching in adult learning spaces in the community. While these two fields of education have tended to work independently, there is much to be learned from each area, and we hope to foster that dialogue.

The following three questions are a subset particular to this paper:
1. How do teaching practices foster creativity and criticality through various modes?

2. How does the theory of multiliteracies engage marginalized learners?
3. In what ways do multiliteracies foster versatility in meaning making?

This research uses case studies (Stake, 2005) and draws upon a constructivist grounded theory methodological framework (Charmaz, 2014) to investigate a multiliteracies approach to teaching and learning with adolescents and adult learners. It involves site visits and observations of secondary school classrooms and various community sites that provide rich multimodal learning experiences for adults, such as museums, art galleries, music organizations, and additional language learning programs. To date, the research participants are 4 high school teachers; 3 high school students; 13 adult educators; 7 adult learners; 1 school board administrator; and 2 community-based administrators.

Currently, data collection has been put on pause due to the COVID-19 pandemic, and within the school board, it was already delayed prior for several months because of a work-to-rule situation. We have confirmed plans with a few more participants across all categories to resume data collection when our Review Ethics Board (REB) at both universities and the school board permit in-person research again once it is safe. We will continue to conduct the research in both Windsor and Essex County, Ontario, and Halifax and Halifax Regional Municipality (HRM), Nova Scotia. Windsor and Essex County and Halifax and the HRM offer unique literacy research opportunities due to the cities' cultural and linguistic diversity. Windsor hosts 29.7 percent of individuals speaking a "mother tongue" or "home language" that is not English (Statistics Canada, 2016a). In contrast, Halifax's literacy demographic sees 8.5 percent of its population speaking "immigrant languages" that are not English (Statistics Canada, 2016b).

We use purposive sampling (Patton, 1990) to focus on teachers and students in a variety of content areas and adult educators and learners. Participants have self-identified as teaching using many of the principles of multiliteracies and multimodality. We include administrators and policy makers to explore systemic supports and barriers related to educational institutions. Recruitment is done through posters, listservs and also facilitated by our SSHRC collaborators in each province – a school board superintendent and a government policy maker in adult education. For adult learning sites, we also invite organizations to participate in the research via their public contact information.

In this research, participants are given a wide range of options around how they might participate, including a one hour face-to-face semi-structured interview or sharing pedagogical materials such as lesson or unit plans, educational artifacts, or the instructions for assignments. Some might invite us to sit in on their classes to write pen-to-paper field notes (observations usually last approximately four hours, and we do these sessions about four times over the duration of one to three months).

Participants also have the option for our research team to film one of their school classes or adult learning spaces. If so, anyone present at these filming events has the option to be outside of the camera's frame. For those we do film, they sign a media release form, in which they also can indicate if they are willing for the film footage to be used as secondary data for research purposes. In the REB consent forms, participants can indicate if they wish to have their identities revealed or not. However, following their board policy,

the participating school board has asked all identities for the purpose of research papers to remain confidential, which is why we have not named school participants. Active consent is ongoing through verbal discussions and written consent forms for different stages of the research.

Charmaz's (2014) constructivist grounded theory methodology proposes that if "we start with the assumption that social reality is multiple, processual, and constructed, then we must take the researcher's position, privileges, and perspective and interactions into account as an inherent part of the research reality" (p. 13). Constructivist grounded theory methodology builds on the foundations of grounded theory (Glaser & Strauss, 1967; Strauss & Glaser, 1970; Strauss & Corbin, 1998), but with an important distinction that acknowledges our bias and perspectives affect our interpretations. We acknowledge our own positioning as researchers affects our data collection and analyses. I, Susan Holloway, am a white, straight, middle-class, cisgender woman. I am conscious that my strong interest in multiliteracies shaped how I conceptualized the study and might influence my interpretation of the data. Although I had never met the majority of participants prior to this research, I have found we have much in common since I have lived most of my life in Nova Scotia and Ontario, and we are all in education. I, Rasha Qaisi, am a Middle Eastern, straight, middle-class, cisgender woman. My cultural background and bilingualism allowed me to connect more easily with certain participants, particularly Canadian newcomers, and conduct interviews in Arabic.

Charmaz (2014) notes that "the coding practice is interactive" (p. 115) in that we "choose the words that constitute our codes" (p. 115). Our *coding* of transcripts in this current study, true to constructivist grounded theory methodology, involves using gerunds and line-by-line coding to help ensure implicit ideas are brought to the surface. The analysis is then honed through the next stage of *focused coding* (Charmaz, 2014, p. 140), which offers a more concise summary of codes and compares ideas coming up across the data. *Memo-writing* is the last method that Charmaz (2014) recommends so that "by examining the specifics, you understand the whole of your studied phenomenon, often in new ways" (p. 164). *Memo-writing* begins the process of theorizing from the data, as Charmaz (2014) explains, by creating "an interactive space for conversing with yourself about your data, codes, ideas, and hunches" (p.162). This "conversing" has involved the whole research team in "constructing theoretical categories" to "raise focused codes to conceptual categories" (p. 162). We have generated our analysis out of grounded theory alongside multiliteracies, multimodality, and social semiotics to theorize from the data.
Constructivist grounded theory methodology encourages using a variety of sources of data as we have done so throughout the research design. Data comparisons are ongoing; it is a recursive process as new data emerges. For the document analysis, and to a lesser extent with the film footage in this paper, we draw upon multimodal social semiotics analysis (Jewitt, 2009; Kress; 2010).

Findings and Discussion

In this section, analysis of the data will be interwoven with the findings by using multiliteracies, multimodality, and social semiotics theory. We draw upon the data

collected from interview transcripts, original film footage, document analysis, and field notes. Three themes emerged from the data: (i) visual mode as storytelling; (ii) negotiated meaning through the linguistic mode; (iii) conveying meaning through the gestural mode. Although these modes are at times discussed separately to go deeper in the analysis, it is important to understand that most often while utilizing modalities, modes are not used in isolation but rather combined with other modes to convey meaning. While the following subsections discuss each mode (i.e., visual, linguistic, and gestural) individually, fostering creativity and criticality, engaging marginalized learners, and providing greater versatility in meaning-making practices are themes interwoven within all three subheadings and modes.

Visual Mode as Storytelling

Within our study, visual modes are highlighted by educators, students, or adult learners through the use of artwork, images, diagrams, and videos. Karen McClellan, one of our participants and the Artistic Director of Arts Can Teach, offers an in-school program that facilitates artist-teacher collaborations in all subject areas. Rather than artists coming to classrooms to teach arts specifically, the arts are used as a tool to help teach other subjects. Karen recalls an example of a visual arts lesson in a science classroom to explore structures "experimenting with different materials and their capabilities and properties." She explains how students are led through a design process whereby ultimately students design and create chairs made from folded paper.

To understand the possibilities of design, students begin by observing materials and textures from an artistic perspective. As Karen notes, they are shown examples of "some funky and fun, sometimes bizarre ideas" of various chairs designed by artists. After a drawing lesson using a chair as a "still life" subject, students sketch out some of their own ideas. According to Karen,

> it's emphasized that an artist takes many, many times to experiment, to explore, to make mistakes where students are given time for experimentation, trying and failing, making mistakes, and trying again. Students are encouraged to take rough ideas and think through what elements they want in their chair. What will their chairs be used for? What is the function? Will it be a relaxing chair? Will it be a chair for getting work done?

This is a learner-centered model in which students are very much in charge of their own chair creations. Yet, it is also a communal process in that they work with peers, artists, and their teacher to think through design. In what Kress (2000) refers to as "'reading' as a semiotic cultural practice" (p. 188), he articulates how everyday artifacts tell a story about culture. In 'reading' chairs, we realize that their designs provide clues, for example, to a person's or an organization's social status or societal views of aesthetics. Is the chair ornate? Streamlined? Does its shape purport a degree of self-importance? Or functional austerity? Students implicitly learn some basics of social semiotics analysis while studying a range of chair exemplars. They are also engaged in the process of *Learning by Design* as they take existing chair models (Available Designs), mentally and physically develop their own chairs based on some elements of those exemplars (Designing), and then produce their own final product that includes their personal vision (The Redesigned). Cope and Kalantzis

(2020) reflect on design processes, stating, "these are the wellsprings of personal voice, creativity, and human identities" (p. 71).

Multimodality aids students in fueling their imaginations through visualizing a range of possible chair designs. They must think through aspects of visual literacy that affect meaning - making such as choosing of colours in terms of aesthetics; considering perspective when imagining someone viewing the chair from different angles; noting how texture will play into the visual design; and deciding which features of the chair will be foregrounded. All of these elements of design must be weighed while also figuring out proportions for visual impact as well as functional necessity so that the chair does not fall over. In addition to the visual mode, various modalities work in tandem with one another: kinesthetic (manipulating the adhesives and folding the paper to produce the chairs); oral (discussing their plans and problem solving with the classroom community); spatial mode (gauging proportions and linear possibilities).

Another participant in the study, a secondary school English teacher, provides a different example of visual learning whereby she has students represent and tell stories through drawings, which is a form of translanguaging. Translanguaging is the ability of language learners to shift between different modes and languages to communicate in the target language. The English teacher comments that those students "could draw or they could write as long as they were conveying the information." The teacher, while referencing one student's sophisticated illustrations as a type of narrative, recalls:

> So this particular student, English is not his first language. So he struggles with the writing. But was able to tell the story. So he verbally told me the points to retell the story, and this was my writing, on the page before [participant points to document]. I wrote it down, and then he illustrated each of the things. So, he retold the story by drawing it.

By offering students various modalities to express their ideas, especially potentially marginalized Culturally and Linguistically Diverse (CLD) students, the teacher ensures that each student can effectively participate in the assignment. Through oral and visual modalities, this student is given a vehicle to produce his thoughts and communicate with his teacher, even though he is only in the emerging stage in language development in English. In language development, a student can internally be working at quite a high level of understanding of the target language but not yet have the ability *to produce* orally or in written form (Díaz-Rico, 2020). Hence, the goal for educators is to figure out how to tap into that knowledge in other ways, which multimodality provides (Cummins & Early, 2015; Herrell & Jordan, 2016). In this case, drawing allowed the student flexibility to bridge with other modes to express himself more fully in English, the target language. Thus, this teacher shows an alternative approach to what Moses and Reid (2021) identify as "traditional prompt-writing instruction with a focus on grammar, mechanics, and school-based writing procedures (often referred to as the basics) [which can] have the potential to marginalize students from diverse cultural and linguistic backgrounds" (p. 6). Multimodality thus becomes a form of scaffolding that gives educators tools to reach marginalized students who otherwise might be stymied.

As further evidence of how visual literacy can aid in a multimodal approach to improve communication, a secondary school student participant working in English as her

native tongue explains how she can better understand a concept if she can draw it as well as write it out:

> If I have an idea, sometimes I have my sketchbook and will just write down ideas. But once I start to draw it out, it helps me with how it flows and how it all works together. Sort of like how it connects as a visual representation. Rather than just words, it can help me get into the details of things.

This participant uses drawing as a technique to brainstorm. Anderson (2003) maintains that "learning to visualize is an essential component of a student's cognitive development and important skill in activities of design and problem solving" (p. 1). This participant explains that sometimes she starts with the mode she feels best able to communicate in (visual) to develop her ideas and flesh out ideas as a steppingstone before shifting them into another mode such as oral or written.

Negotiated Meaning through the Linguistic Mode

The linguistic mode includes the act of reading, and any form of written language, be it on traditional print-based texts or digital texts. Oral language is also part of the linguistic mode, which includes auditory skills, verbal communication through presentations, or listening to audio. This secondary school teacher uses "Socratic Circles" whereby the students research an important topic such as feminist, modernist, or activist art, which aim to build general knowledge on contemporary artforms. In the initial coding of the transcript, we wrote "developing interpersonal skills amongst students" in the *coding* column beside the following quotation. According to this teacher,

> They [students] are learning to have conversations about art, about ideas, and they're learning to listen to each other. And they're learning that they have the skills to prime their thoughts, and to be disciplined about what they say and be sensitive and also understanding of other people's opinions.

This process highlights how crucial verbal negotiation is for learning. The teacher says that "there are observation checklists that I used when assessing their conversations and assessing their interactions," which suggests structured assessment of oral skills. As the teacher notes, *talking* about these ideas "prime their thoughts." Students engage in versatile meaning making across modes throughout this activity: researching and writing in preparation for the Socratic Circle; talking during the Circle; creating fine art afterwards influenced by those earlier design processes that drew upon other modes. Kalantzis et al. (2016) expound on the "fundamentals of literacy in the plural," when they state that

> writing cannot happen without some visualisation, nor without saying things to yourself in oral meaning as you translate these meanings into writing. Multimodal synaesthetic learning brings these processes to consciousness. It discusses explicitly the relation of the design elements across each mode. It gets the students to make their meanings in one mode then another. There is cognitive power in both of these moves. (p. 423)

"Multimodal synaesthetic learning" involves students being able to navigate through various modes in transformational ways that make sense and works to construe the meaning they are trying to convey. Socratic Circles provide rigorous expectations for learners yet allow for versatility in how they appraise the affordances and limitations of combining modes to achieve meaning.

Criticality undergirds learning through recognizing the interplay of reading, writing, viewing, orality, and representation. A school administrator participant advocates for this broader interpretation of literacy when he states that in terms of preparing students to undertake independent silent reading, "we need to make time to preview, read, and discuss." What is more, Ross et al. (2020) characterize criticality as an amalgamation of form and content to create a "multimodal argument" (p. 296). Adult educator, Karin Falconer, who teaches English as an Additional Language (EAL), indicates, "the grammar has to be fitting somehow in what we are doing in our lesson." Karin designs her lessons so that whether learners are writing an email or having a conversation, the grammar is subordinated to the larger goal of effective communication. Multimodal arguments foster criticality, according to Ross et al. (2020), by exploring how "compositional choices build or create tensions with the narrative" (p. 296). Karin might assess an email composition by considering the *form*, including font, image, style conventions, and through appraising the *content*, including clarity of expression, analysis, evidence, and grammar.

Another participant in the research study who works with adult learners, Amy Ley, is the Director of 4th Wall Music, a chamber music ensemble that creates interactive, themed concerts in unique, intimate settings in the community. Amy contends that verbal interaction with the audience is key to making music relevant:

> When you educate an audience about a piece of music, whether it is inviting that composer to the stage or a historian, you are opening the window to them in a way to what the intention or the meaning is behind the piece or even in the process of creating that artwork.

For example, at one 4th Wall concert, a historian traced the biographies of black composers, which was interspersed with the audience then listening to these composers' musical pieces being played live by the musicians (field notes, February 4, 2019).

As the other part of the linguistic mode, written meaning is constructed through combining content and form. The Canadian Museum of Immigration Pier 21 in Halifax, Nova Scotia, is a community learning space designed to engage learners of all ages. In curating the experiences of visitors to the museum, opportunities for learning are generated through multiple modalities. The museum displays immigrants' trunks that carried a person's belongings across the ocean to a new life in Canada. The trunks are artifacts used to teach about the broad ranging stories of immigrants – what they chose to bring for practical or sentimental reasons; information about the reasons they left; clues to their socio-economic status and cultural backgrounds. As a part of our original film footage, see https://multiliteraciesproject.com/adult-education/pier-21/ in which a Pier 21 guide discusses four stories behind different pieces of luggage.

Visitors are given the opportunity to tell their own personal connections to immigration by writing about their experiences on luggage tags provided by the Museum (see Figure 1). For instance, one writes,

> My great grandfather, a Canadian soldier in WWI, was severely injured in battle in the fields of France. After months of time in a field hospital, he continued to convalesce in a London army hospital where he was nursed by who would become my great grandmother. After the war, on 8 Apr 1920, she arrived at Pier 2 Halifax on the Royal George. My great grandfather was waiting and they married that same day, in the Pier 2 immigration office. They took the train to Sault Ste. Marie, Ont., started their family and almost 100 years later, here I sit!

Let us turn to some of Kress's (2010) social semiotics theoretical framework to examine the meaning-making process through linguistic content found in the design of these luggage tags.

Figure 1. Luggage Tags at Pier 21

Kress (2010) articulates the relationship between what he refers to as the *rhetor* and the *designer* (who may be the same person but not necessarily). Kress (2010) explains:

The *rhetor* assesses the social environment for communication as a whole. She or he needs to shape their message such that the audience will engage with it and, ideally, *assent* to it. That is the political task. The *designer* assesses what semiotic – representational – resources are available, with a full understanding of the *rhetor's* needs and aims, in such a way that the *rhetor's* interests, needs and requirements, are met and make the best possible match with the interests of the audience. (p. 49-50)

In this case, museum visitors are the *rhetors* who tell their personal, family histories for all to read, and the Pier 21 curators are the *designers* who have created the form which will delimit the narratives. The *rhetors* know that their audience will be fellow museum visitors who also have come to learn about immigration in Canada. We assume all of the narratives represent factual, true experiences. Every tag seems to be worded in a way that intentionally creates an emotional impact for the reader. The *rhetor* wants the audience *to feel* their experience – to know matters were grave for the soldier severely injured, suggesting this family's fate could have been different. As Kress (2010) states, the *rhetor* "assesses the social environment for social communication." In being persuasive, it does not mean that the *rhetor* is calculating, but rather the *rhetor* wants to marshal the powers of the pen (the written mode) to invite the audience fully into this experience. We infer the *rhetor* celebrates her family and national heritage through this love story.

The *designer* has chosen the old fashion-looking luggage tag with purpose. The size of the tags ensures the content is brief. The metal bar with clips that hold the tags is reminiscent of a laundry line. Like laundry, the tags are ephemeral, fragile, and easily whisked away much like the histories of Canadians whose stories of immigration are etched in memories. The museum helps to anchor some of these memories. The luggage tags are every day, vital identifiers for luggage just as much these tags become the talismans of *rhetors* wanting to share their stories. The luggage tag display helps to bridge between the historical artifacts of the pieces of luggage displayed in glass showcases, and the tags written by visitors in the last few years, which show how history is still in the present. With their own hands, visitors can rifle through the tags – many personalized by their unique handwriting, drawings, or native tongues. The *designer*, as Kress might argue, has assessed the representational resources available, and provides a semiotic form (the luggage tag) that gives meaningful, symbolic form to the written content of the *rhetor*.

In the photo (see Figure 1), note that there is a station to the right for readers to creatively become *rhetors* themselves. They too can share their story of immigration. Above are historical black and white photos of Pier 21. Outside of the photo's frame, if we were there in person, to the left, the visitors see the ocean beside them through floor to ceiling windows and are reminded they stand on the actual pier at which millions of newcomers arrived.

In her interview, one of the participants, Kristine Kovacevic, who works as the Interpretation and Visitor Experience Manager at Pier 21 states about their team developing exhibits, "it is more logistic building and selecting images and it gets really complicated. But more and more and more, it is becoming a very collaborative project between audience engagement and curatorial." The curators at Pier 21 foster criticality by providing a larger

national context for immigration that not only draws upon personal experiences to create emotional affect, but also explicitly shows how systemic racism has played a large role in Canadian history – an ideological choice to curate which objects will constitute the knowledge base that gets foregrounded. For instance, Pier 21 displays evidence of documents that show immigration officials and agents who purposefully dissuaded black farmers from immigrating to Canada through misinformation via newspapers and financial penalties.

Conveying Meaning through the Gestural Mode

Drawing upon the work of Stein (2003) and Hofstadter (1985), Bock (2016) argues that transduction is a great source of creativity "as the concept or idea passes from one mode to the next, it develops in ways that are unexpected and unanticipated, thereby enabling multiple variations (of forms, shapes, colours, patterns, words and images) to emerge" (p. 4). The gestural mode is perhaps turned to less often by educators, especially in adolescent and adult learning settings, but it offers an important embodied experience that allows learners to communicate both creatively and critically through a medium that is very distinct from other modes. Gestural representation embraces physical expressions, movements and gestures, and facial expressions (Cope & Kalantzis, 2009). Leonard et al. (2016) discuss the significance of moving from one mode to another as transmediation:

> Transmediation refers to the recasting of knowledge and its reshaping of meaning across modes. The new meanings that take shape remain particularly relevant through the gestures and movement afforded by dance. Form and meaning are lived, interpreted, enriched and transferred across modalities, shaping learning and creativity in a uniquely personal manner. (p. 341).

Anh Nguyen, another educator in our study, is the Director of HNM dance centre, which focuses on dance for artistic expression rather than commercial endeavors. The adult learners are professional dancers and community members. Here is an example of transmediation, or transduction, whereby learners created new meaning making by using their own bodies as representational resources to transmediate a spoken poem. Shifting from one mode of communication to another, Anh's adult learners engage in improvisation. The dancers push their collective creativity to its fullest:

- 1 ex.: they [6 dancers] sat in chairs in a circle – "Filling Station" poem was playing aloud. Anh went around the circle and touched each person's shoulder about every 2 min. When touched, each dancer would leap into action. Each one, dramatically through dance, capturing ideas/tone being expressed in the story at that moment. Sometimes standing up, sometimes slithering or slumping onto the floor. That person would freeze once the next person's shoulder was touched.
- Anh gently makes suggestions to the dancers throughout the classes. Not just about technical moves. Also regarding ways to express ideas through

movement. Often dancers would use only one part of the body. Anh would suggest using other parts as well. (field notes, September 22, 2019)

Dancers use multimodality and criticality in the process of embodied learning to interpret the poem through dance movement. The written poetry text is first transformed into an oral recording of voice. The poem is then enacted as physical movement, distilling key interpretations of the poem through gesture. This dance is also composed in a communal fashion with each dancer building on the meaning of the poem through each other's use of body language as well as Anh's ongoing verbal suggestions and critique, thus providing a unique example of what Stein would call "resemiotisations" to advance a person's creative forces (Bock, 2016, p. 4).

Multiliteracies theory encourages the usage of metalanguage, or as Emmitt et al. (2014) put it, "a language to talk about language" (p. 108) to deepen the learning process. When teaching dance, Anh counts steps as well as instructs dancers using the metalanguage of dance. (See https://multiliteraciesproject.com/adult-education/hnm-dance-centre.) In Anh's warm up in the studio, he uses the metalanguage of dance such as "first position," "second position," "high lift" to help guide the dancers. He uses this specific technical language, developed within the discipline of ballet, as a short form to accompany his demonstration of the move, which the dancers also perform alongside Anh. Metalanguage acts as a short form that allows the dancers to quickly communicate verbally what they are simultaneously performing physically as individuals working in an ensemble. Anh also uses metalanguage to forge versatile connections between gesture, movement, and verbal modes to convey ideas.

Often literacy involves learning the metalanguage of the context in which learners are engaged – whether it is the "codes" signifying needs for patient care in a hospital, knowledge of basic terms such as "stops" and "lines" when figuring out a bus or subway route, or words such as "gigabites" or "pixels" related to technological know-how.

During observations of the dancers in practice, Anh says to them: "This is poetry that hasn't been written yet. We aren't reciting what we already know. There is a sense of inventing" (October 6, 2019). His invites the dancers to be open to their own multimodal creative processes. Barb Robinson, an adult learner in Anh's studio comments, "dance is a form of communication. There is dance, there is the space, there is the music, and then there is the audience. And that four-pillar package is the way a performer expresses themselves." Our attention is drawn to the fact that bodily movement can express ideas in very nuanced ways. As Rowsell (2013) points out, "the body is central to how we make meaning in the world" (p. 111).

In a different adult learning context, the use of gesture is considered with regards to gaining literacy around additional language learning. Another participant, Towela Okwudire, is Director of an organization called French Lit. that teaches French. French Lit. physically resembles a café to create an authentic learning environment. Towela's teaching incorporates movement, which draws upon the Communicative Language Teaching approach, including Total Physical Response, a technique developed by Asher in the 1960s. As Curtain and Dahlberg (2016) point out, "when teachers link language with actions, they provide additional context….gestures help students remember key vocabulary" (p. 116).

In two short excerpts of original film accessed at https://multiliteraciesproject.com/adult-education/french-lit/, adult learners at French Lit. mimic new vocabulary pronunciation through song and movement. They stand in a circle, which Towela leads by introducing new verbs with repetition, gestures, and movement. Some verbs are abstract such as "to think," which in French is "penser".

In these film excerpts, each gesture meaningfully connects to the concept also represented in the spoken word. When the adult learners struggle with some of the vocabulary, Towela encourages deductive reasoning to interpret the gestures. For instance, she uses the synonyms "rangé" and "sorté," which both mean "to put away" in French. When one learner hypothesizes the associated gesture is "to exit," Towela asks her to re-evaluate the gesture as she again performs it. Towela holds her hands out as if clasping something, and then slightly turns her torso to the side while her legs and feet remain motionless, and finally opening her hands as if letting go of the imagined clasped object. Transduction between the gestural mode and oral mode reinforces the teaching of new vocabulary and verbal usage in the target language, which in this case is French.

Role play, another creative form of gestural mode, is essential in Linda Lord's view. Linda, a participant in this study, is an art therapist and Arts Can Teach educator who works with both adolescents and adults. In discussing role play, she observes:

> We are in the second generation where play is irrelevant. Play is, why would we do that? But play is where we expand our repertoire. We learn how to be other people when we play. We learn that we can hurt each other when we play. We learn problem-solving. We learn negotiating…especially for the kids in recovery because they get to play and practise who they think they want to be when they are not held hostage by their disease.

Role play allows people to express their ideas and perceptions in an embodied way without necessarily revealing deeply personal experiences. "Problem-solving" through play is really about having versatility in choosing which modalities to deploy to make meaning. The immediacy of opportunities to partake in modalities such as drawing, dance, and role play in a North American context tend to recede as people grow into adolescence and adulthood. Yet these modalities are powerful ways to express a greater range of ideas and emotions.

As social semiotics shows us, the need for meaning making continues over the lifespan, and teaching informed by multimodalities may enhance deeper opportunities for learning and the development of different literacies. It is ironic that as our mental capacities grow more complex, educational institutions frequently narrow the focus of modes through the conventions of traditional pedagogy.

Conclusion

This paper has explored multimodality and multiliteracies in the context of educators working with adult learners in a variety of community contexts and secondary school teachers finding ways to engage adolescent students in their classrooms actively.

Broadening the range of forms to communicate through multimodality may stimulate deeper ways of thinking through meaning-making processes. Leonard et al. (2016) argue that "because our world is one of symbols and complex meaning making within and across media, it requires us to call upon multiple literacies in order to access, interpret and recreate it (p. 339). By consciously bringing multimodality and how modes might be combined in thoughtful, purposeful ways into curricular design, educators are more likely to bring forth learners' interests, strengths, and abilities to meaningfully engage in and shift between modes. Multimodality and multiliteracies acknowledge the importance of social relations in any type of communication. An individual rapport between educators and learners built on a foundation of trust, respect, and caring is also fundamentally important to good teaching.

Teaching, though, must also be contextualized in its larger societal milieu. Kress (2010) identifies the "instability of social environments (that is, the fragmentation, disappearance of stable, reliable, 'accepted' conventions" (p. 134). For instance, in the field of literacy, the conventions of print culture are recontextualized in the wake of the Internet, at times exposing inequities of people who do not have access to new technologies or digital literacy, and thus furthering an already existing divide (Smythe et al., 2018). Adult education, multiliteracies, and social semiotics, which inform this paper, all come out of critical paradigms that acknowledge and critique power relations embedded within literacy.

While multimodality has historically been with us for all time, and modalities offer a resource that teachers and adult educators have often used instinctively to engage learners, social semiotics theory helps to clearly articulate the pedagogical value of multimodality. Multimodality encourages teaching that recognizes that a wide scope of communication tools can serve a greater number of diverse learners. Asking them to think through choices that involve metalanguages, transmediation, transduction, and synaesthesia may foster flexibility and higher order thinking skills. Using social semiotics theory also promotes criticality about ideologies and power relationships in broader societies – every mode is a text perceived as open to critique. To rise to the challenges of this era, multiliteracies, multimodality, and social semiotics theory offer a way forward in education to prepare learners to grapple with our world which is drastically undergoing large social changes at a rapid pace.

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