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Communicating with Visual Language in a Bilingual Art Classroom

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Abstract

This qualitative research study looks at communication during an art lesson within an urban, public elementary school with a bilingual American Sign Language (ASL) and English student population inclusive of Deaf, hard-of-hearing and CODA students who use ASL as their primary language. Though teacher, student and interpreter interviews along with classroom observations this study explores the many distinctive styles of communication native signers engage in and respond to when investigating, discussing, creating and critiquing in the art room. Some successful creative exploration tactics that synergize with native signers' inherent tendencies are visual thinking inquiry strategies and use of multisensory, tactile materials during art-making. Art educators can provide a safe and temporary outlet for a native signer's unique responsibilities concerning daily challenges of independence, oppression and intolerance by giving them a secondary visual language tool—art-making—to explore their developing identities and communicate their personal narratives. Fluid, honest, open (yet moderated) dialogue and understanding between students, teachers, and other orbiting influences such as interpreters is a vital part of students having a positive experience exploring new concepts, skills, risks, identities and communication in the art room. Some elements that need to be considered range from physical set up of the art classroom—to flexibility of teaching strategies based constant assessment of student comprehension—to recognition and inclusion of Deaf pride, culture and American Sign Language—along with incorporating inherent visual strengths of native signers into actual skills and techniques used in art-making.

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Introduction

Twenty years ago, as I worked as an art counselor at a special needs summer camp, my interest started to grow regarding the similarities between visual expression through art-making and communicating visually through American Sign Language (ASL). Many years later, I am pursuing a career in art education while simultaneously learning ASL in New York City. A large part of becoming fluent in sign language involves understanding and respecting Deaf culture. In the early 1800's using sign language as the primary mode of communication to educate the Deaf had started to blossom with Thomas Hopkins Gallaudet and Laurent Clerc opening the American School for the Deaf in Hartford, Connecticut. Manualists valued sign language as an optimal form of communication arguing, "...that signs were closer to nature because the first thing babies learn to do is gesture, which is akin to sign language" (Baynton, D, p. 15). Following the end of the Civil War in the 1880s, a huge setback came for Deaf culture and education when Alexander Graham Bell, a famed and wealthy inventor married to a Deaf woman, strongly promoted oralism at the International Congress on the Education of the Deaf (ICED), nicknamed the "Milan Conference". Held by the Pereire Society, educators gathered in Italy to decide on the best language methods for teaching Deaf individuals. Over half of the attendees favored oralism, presenting biasly worded theories over three days focused on efforts to ban the use of sign language as method of communication for the Deaf. The supporters of ASL, in contrast, were given three hours to present their case, leading the congress to vote that Oralism was the superior method and sign language was to be banned. The Deaf were not allowed to use sign language to learn or communicate in school or in public, with severe punishments such as being forced to wear mittens or having their hands tied together (Gannon, J., p. 14).

Considered the 'Dark Age of Oralism'—for the next 100 years the Deaf could only use and teach American Sign Language in secret. The 1960s-80s brought small amendments and changes to the oralism regulations, introducing more flexible communication methods using Signed Exact English combined with simultaneous oral speech therapy—but only in 2010 all restrictions were lifted with a formal apology from ICED freeing the Deaf to seek education in any combined methods that suited them. In 1990, the cochlear implant gained popularity and despite its minimal influence aiding hearing, children who had the surgery that had originally attended residential ASL schools were transferred into oral schools. These mainstream programs prepared no extra support or curriculum adjustments to help Deaf children integrate into a classroom of hearing students. Using sign language in school was discouraged, said to possibly slow down progress with speech therapy and lipreading.

Struggling with Oralism, ASL brings transformation

In my journey of learning ASL, three of my teachers—all highly educated, creative, successful in business and prominent figures in the NYC Deaf community—tell their story of being mainstreamed and taught lip reading and oral speech as their primary means of communication in school. They struggled with reading, writing and making meaningful connections with family and friends. Doctors advised their parents to not learn sign language—assuring their families that rigorously training their children in speech therapy involving lip reading, mouth movements with vibrations, and use of hearing technology was the best route to a successful education and integration into a dominantly hearing world. Deaf children were taught to relate spoken language and concepts to a printed word using a Signed English process when learning to read, write and communicate. My Deaf teachers describe the transformative, momentous and life-changing experience when an alternate world of communicating

visually through American Sign Language opened up around their high school years simultaneously connecting them with the Deaf Community. Two of my teachers completely dropped their previous hearing aid technology—immediately adapting to this expressive language and never looking back. As they spoke of their frustrating and unfair experiences in oral schools (and at family dinner tables), I immediately adopted their viewpoint that Deaf children should be taught ASL from birth and have unlimited access to using ASL as a primary communication mode in an educational environment.

Not at a Loss

Hearing people who are not well versed in Deaf culture tend to generalize that Deaf people would be better off if they could adapt to a 'hearing world' by using technology to aid in sound reception and learning to speak orally rather than using ASL to communicate. In fact, the Deaf argue that oralist organizations that promote hearing technology are, "...miseducating the parents of Deaf children… and earning their millions by perpetuating misinformation. They are using the ears and the bodies of Deaf people to make themselves rich" (Ringo, A., Aug 2013, p. 4). Being unable to hear is not a disability or something that needs to be 'fixed' and is instead, one of many physical variations of the body that builds perseverance, character, persona and stamina in a human being. Henry Kisor—a Deaf, well-educated and successful book review editor also raised orally without access to sign language—confirms this viewpoint in his memoir, *What's That Pig Outdoors?: A Memoir of Deafness*, saying, "If the Deaf don't miss what they've never had, where's the disability? The real handicap, they will argue—and not without justification—is not within themselves but in the obsolete and benighted views many ignorant hearing people have of the Deaf. Not for nothing did the existential philosophers declare that hell is other people" (p. 200). The Deaf community has always made it clear—no matter

their methods used to communicate—not being able to hear is not considered a loss, and in fact, has amplified their other senses such as visual perception. In a brain that does not need the auditory cortex for hearing, other senses will come in and colonize those cells with, "...a reorganization of multisensory areas, ranging from higher order cortex to early cortical areas, highlighting cross-modal interactions as a fundamental feature of brain organization and cognitive processing" (Bavelier, Dye, & Hauser, 2006, p.3). Just as an artist needs to consider how to express a concept by physically conveying an emotion or narrative within a specific space, "...signers are faced with the dual tasks of spatial perception, spatial memory and spatial transformation, on the one hand, and processing grammatical structure on the other - in one and the same visual event" (Emmorey, K. et al., p. 141). A signer must simultaneously use body language, facial expressions, spatial planes and dimension to accurately convey a concept or narrative when communicating. For example, one recent study at UMass Amherst looked at how quickly geology students adapted to using the Brunton Compass, a spatial recognition tool that images three-dimensional patterns. The professor noticed that, "Some students spend years honing their observational skills, especially those that involve pattern recognition and spatial-thinking. But students who use American Sign Language are often already adept at this 3-D thinking, and it may give them an advantage..." (Cooke, M., 2005).

A recent study done on deaf cats is able to pinpoint and cool parts of the brain to isolate where specific reactions and senses are functioning. Scientists find, "...that the brain recruits cells normally devoted to hearing to help them see better, the research revealed. The brain is very efficient and it's not going to let this huge territory that is the auditory cortex and all the processing that it has go to waste" (Than, K., p. 4). This study says that once the brain has repurposed and organized the auditory

cortex as an area for visual enhancement, later in life if one were to get a cochlear implant the results would be far less as the brain will not reorganize and give up this space for auditory learning once settled in youth. Could experiencing guided inquiry into new artworks and tactile, multi-sensory art-making as a youth help enhance and strengthen the brain's ability to redelegate unused areas for visual communication and interpretation?

What Does it Mean to be 'hard-of-hearing'?

When I initially began an email correspondence with the primary art teacher at my research location—an urban elementary school in that specializes in students that use ASL as their primary, home language and were learning English as a second language—I inquired about the ratio of Deaf students to students that were hard-of-hearing (HOH). Aside from friends I had made who were completely deaf in my ASL classes, I learned about another group of people with varying degrees of hearing who feel they are in between the hearing and Deaf world—many hard-of-hearing people feel like emotionally they don't belong to either culture if they don't use sign language but still have difficulty understanding oral speech. Rikki Poynter, a prominent, teen YouTube blogger who is hard-of-hearing jokes that she is 'too deaf for the hearing world, not deaf enough for the Deaf world'. Her first language is English, she was mainstreamed and grew up in an oral household with abuse she literally could not clearly express to anyone. Rikki states that regardless of what community one is put into:

> Science doesn't give a crap about your labels or your identities… 95% of deaf or hard-of-hearing kids are born to hearing parents who prefer their kids have hearing aids, speech therapy and cochlear implants—we aren't integrated into Deaf Culture or taught sign language. I have an identity crisis, like, who am I? I had

> no idea about the (Deaf) community and history so it's hard to feel a part of that, but I still have trouble connecting with the hearing world." (Poynter, R., 14:23)

Elementary aged students who are hard-of-hearing struggle with constructing their social identity among hearing peers who single them out as 'different' or among the Deaf community who are not accepting of their oral tendencies and possible lack of ASL knowledge. I was interested to see how hard-of-hearing students may be able to use art as a tool to communicate their self-realizations and bond with both worlds in the art room community. Researcher Brittany Lash grew up experiencing the challenges of being a hard-of-hearing student first hand—realizing her developing identity emerged through communicative interactions—conceptualized, co-created and defined by her peer relationships. (Lash, BN., 2011, p.3)

Who are CODAs and Are They Native Signers?

I had heard of the hard-of-hearing identity struggle but was taken by surprise when the art teacher told me that half of her class was a group of hearing students who grew up with Deaf parents teaching them American Sign Language as their first born, native home language and were speaking English as a second language in this school—Children of Deaf Adults (CODAs). When straddling the complex cultural plain between the Deaf world and the hearing world, they feel that their first language of sign is more relevant to their identity. "In sign language, there are ways you can express or say things that seem better or more appropriate [in sign than] in English. We sometimes sign something because it really captures what we're thinking." (Skujins, A., p. 3).

I began to wonder how students who were raised using a visual language to communicate would be especially influenced by learning to express themselves—using visual thinking strategies

accompanied by multisensory techniques and materials—through the language of art. How could visual inquiry strategies and tactile methods be used in the classroom to understand meaning in artworks while synergizing with the natural tendencies of children who grew up using a visual sign language? When these students tackled an art assignment after 'close-looking' at a specific artwork, movement style or watching a teacher demo a technique, what do we observe in their process and final product that embodies their unique perception of the world where the spatial and visual rules over sound and voice?

Literature Review

Introduction

First I reviewed literature on challenges and significant attributes that are observed in Deaf, hard-of-hearing and CODAs that may affect the way they respond to, process meaning, communicate and create in a classroom environment. I included research on the importance of classroom set-up and lesson modifications for Deaf and hard-of-hearing students. I found almost no literature that looked closely at these factors in the specific environment of a school art room or regarding art-making. I was surprised how little research existed about visual arts connecting directly with communication methods in school art rooms. Investigating my theories regarding the best ways for an art educator to guide a group of beginner, native signing students through interpreting and understanding a specific work of art, I reviewed current literature and research regarding Visual Thinking Strategies techniques. There is extensive, ongoing research that implies that with carefully guided questions, students can not only deep-dive into an artist's intent and emotion encompassed by an artwork, but also simultaneously develop visual thinking and problem solving skills that can connect to other

disciplines. I then looked into the many multisensory and tactile strategies with mindful teaching materials that can be used in a classroom to engage exceptional students on multiple levels. The topic of self-expression through art-making linked to visual communication through sign language seemed to be scarcely touched on in academic literature. I reviewed scientific research that documents beneficial effects of teaching ASL as a secondary language to a classroom of elementary hearing students. I especially connected with literature that studied art as a language itself. I found relevant research that documents the organic, innate development and benefits of a visual, hands-on approach to language learning—babies naturally using gestures to communicate before they have words and young children learning basic ASL signs to accompany new vocabulary showing an increase in their literacy learning abilities later on. There are debates as to whether ASL should be taught in schools as a foreign language, questioning if the language has a proper culture and value if it can't be written? I found relationships in the classroom between English Language Learners (ELLs) and children who learned ASL as a first language regarding inclusion issues such as socialization and language skills barriers. I looked at current practicing Deaf artists, such as Christine Sun Kim at MoMA exploring sound as visual art. Other creative events in the Deaf community such as ASL poetry slams stood out to me as yet another connection to dimensional and visual communication art that could be explored in the school art room and provide an outlet of unconventional expression. I read through Deaf students' perceptions of their school experiences to understand more from their perspective. I looked at *Blueprint for Teaching and Learning in Visual Arts* and *National Core Arts Standards* to understand how creative teaching goals can be integrated successfully into art lessons and demos for students using ASL to communicate. Reviewing this literature, I looked for connections to how all of these studies, experiences, arguments, issues, methods of creative expression, and tools could affect, benefit,

and synergize with particular perceptions and characteristics found in native signers and be implemented in the art classroom to improve these learners' communication through creative experiences.

In the Classroom: Challenges and Unique Attributes Observed in Native Signers

Nicknamed 'the hearing eye', people who are deaf from birth tend to be more sensitive to light or motion in their peripheral vision and are therefore better at processing these visual cues. Auditory deprivation and the acquisition of a visual language have been shown to have marked and different effects on the development of the brain (Neville, H.J., and Lawson, L, p. 284-94). Recent studies point to tactile experiences as extremely important for interpretation and understanding, "The deaf participants had more activation in the auditory cortex in response to touch and visual stimuli than did the hearing participants... the primary auditory cortex in Deaf people responded even more to touch than to vision" (Bates, M., 2012, p. 1). This links the importance of using multisensory strategies and mindful, tactile teaching materials in an art room of students with exceptional communication needs such as native signers. Reported issues of wavering attention spans due to peripheral distractions in the classroom are common in deaf children—sometimes misinterpreted by teachers as disinterest or boredom. "Deafness has been shown to correlate with an enhanced ability to perceive moving objects; increased peripheral vision capabilities in the retina itself; and increased visual attention, sometimes even to the point that it's no longer advantageous" (Audicus, 2014, p. 2). It's possible the distractions can be reduced with close attention to classroom set up and other techniques (discussed in detail later on), but consider the advantages a hearing student has when—occasionally their visual attention may waver—they are still audibly able to absorb the general gist of what the teacher is saying and tune

back in without much information loss. In an inclusive classroom, if a hearing student in the class group discussion speaks out, a deaf student would need to look away from the interpreter to locate the thread of conversation and large gaps of translated instruction may be missed—throwing their understanding out of context for the rest of the lesson. Students relying on interpreters are always processing information a few moments behind in the lesson, considering the varying time it takes for the interpreter to translate spoken words into ASL. This also affects these students' response times when contributing to a conversation and may lead to a student's hesitancy to respond within the group discussion, fearing their comments are lagging or possibly no longer relevant. (Blizzard, D. and Foster, S., p. 228) Studies related to communication in a classroom of Deaf, HOH and CODAs who favor sign language as their natural source of information input, show these students are less likely to request clarification or repetition of what they missed, and may receive the wrong information from peers who are trying to interpret or clarify for them behind-the-scenes:

> Taken together with these findings that deaf students may pay limited (visual) attention to a teacher lecturing in the front of a classroom (even with an interpreter), the infrequency of requesting repetition of information and the lack of comprehension of sign or spoken utterances in face-to-face communication suggest significant educational as well as interpersonal challenges for deaf students with significant hearing losses. (Marschark, M., et al., 2007, p. 422)

Could visual 'check-in' methods incorporated into group inquiry, demos or the art-making process be used in the art room to aid these students in comfortably expressing apparent confusion—such as the teacher designing a quick visual assessment activity to measure what needs clarification on the spot? Paula Eubanks researches the expressive components of visual language and sees the making of marks or objects as 'visual symbol systems' that communicate ideas. Art educators can interpret children's drawings as, "...a cognitive pathway into their understanding, allowing their teachers to check the

students' understanding of new vocabulary and correct syntax" (Eubanks, P., 2011, p.34). Visual response exercises used for quick in-class assessment of student understanding could possibly lessen the communication gap for native signers in inclusive classrooms.

Native signers come to the table with less English vocabulary to express themselves with and less general knowledge of what hearing people assume is obvious to everyone. This language deprivation is due to the lack of full access to language acquisition, especially during first two years of child's life if they don't have full immersion in ASL. (Callis, L., Dec. 2017) "Deaf kids do have deficits in just general knowledge and background knowledge of things that hearing kids understand because they have experience with something similar...Teachers assume a depth of knowledge that Deaf kids really don't have and they sit without having a clue what you're talking about" (Jiménez-Sanchez, C., and Antia, S., 1999, p. 221).

In a similar vein, Fruchter and colleagues (1984), concluded from their research that native signers may have trouble with figurative language when literally interpreted from oral English. This figurative language must be broken down and 'the larger picture' visually described for a complete understanding. Deaf culture has their own way of expression slang, idioms, sarcasm and figurative language in signs that have no true English translation. Maybe visual expression through art could help teachers and students close the cultural gap by using imagery to bridge a mutual understanding in the art classroom.

In regards to potential development in literacy and students understanding complex texts, it has been observed, "...that students could read beyond literal meanings and learn to read more critically if they were ...exposed to advanced comprehension tasks commensurate with the maturity of their

thinking abilities" (Erickson, 1987, p. 293). Deaf and HOH children along with CODAs encompass a maturity and unique understanding of the world, as they have been dealing with challenges concerning communication, independence, oppression and intolerance from a young age. CODAs have the especially mature responsibility of interpreting for (and navigating discrimination against) deaf family members in situations that are beyond their years when pertaining to a child's normal exposure to intense and weighty information regarding topics such as medical, financial or legal matters. If art educators could tune into and harness this remarkable maturity when guiding students through comprehension of sophisticated art concepts, the result could be a more meaningful and unconventional interpretation than a student without these responsibilities and challenges.

Native Signers Have Similarities to English Language Learners in the Classroom

Children who are taught ASL as their first language—because it is their family's first mode of home communication or their primary language because they are Deaf—experience very similar challenges to other English Language Learners (ELLs) being educated in the United States. ELLs bring a unique understanding and exceptional perspective to the classroom, but similarly to native signers, these students struggle with language skills barriers while immersed in a classroom that charges forward in the dominant language. ELL's face the challenge of becoming academically literate while simultaneously dealing with socialization and inclusion issues. Until the late 1980's, the US government argued that ASL could not be considered a foreign language because Deaf people are first and foremost Americans and users of English. Deaf culture was not officially recognized as it was believed to be just a subculture of American culture. It was determined that with no written form, ASL should not be recognized as a true language. The argument that ASL was really just a gestural form of

English has been countered by studies of ASL linguistics, "...that pointed to phonological, morphological, and syntactical similarities and differences between ASL and spoken languages. ASL contains, for instance, phonological binary opposites, morphological combinations, and word order that are comparable to the features and constructions of the world's spoken languages" (Rosen, R., 2008, p. 12).

In the 1960's, a professor of English at Gallaudet University, proposed that sign languages were full-fledged languages on a par with spoken ones. This was considered radical, but he had noticed patterns in errors his deaf students made that were very consistent with non-native English speakers and not just physical linguistic impairment from hearing loss. "Finally, scientific linguistic acknowledgment of sign languages as actual languages allowed for rethinking of the identity of Deaf people as linguistic minorities versus simply hearing-impaired people." (Pomeroy, E., and Nonaka, A., p.293) In the 1990s, the Deaf community organized to put forth a rich body of documentation of their histories and cultural traditions in arts, literature, language—proving it is a constantly evolving community. Regarding the old view that a true language must lie within a specific nation's physical boundaries, "Ties between language and nation have been broken down by migration across geographical regions by the world's peoples and their speaking different languages and carrying different cultures. This leads to the relativization of "language" not in terms of "nation" but in terms of "community" of users" (Rosen, R., 2008, p. 12).

Because ELLs' learning styles vary, art educators need to be flexible and creative with materials and practices, using interactive teaching methods that do not depend on solely on auditory instruction—engaging alternate learning styles that are visual, spatial, kinetic and tactile. "Adding sign

language to a classroom of heterogeneous learners that includes English language learners will aid in generating a positive learning environment, inclusive and interactive for varied learning needs and styles" (Heslinga Ed. D., V. and Nevenglosky, E., 2012, p. 3). Bringing this concept into the art room where the aim is visual communication, "...hearing-impaired students can quickly comprehend the visual formation required for success in this area. Art provides an opportunity for language learning because students are actively involved in the experiences around which language is generated and because the language can be related to concrete objects, processes, and events." (James & James, 1980). Earlier I described native ASL signers as having enhanced abilities of spatial intelligence and the ability to generate visual mental images and maintain them. "Research has shown that pairing signs with English helps learners formulate mental pictures. This multimodal experience can help create new pathways in the brain for storage and retrieval. This helps students remember and recall sight words and spelling words (Daniels, M., October 1994, p.291). Studies have also shown that young students who learn sign language for specific sight words learn to read at a faster rate (Goode et al 1993/94). Especially for younger native signers in inclusive classes taught in the dominant language (spoken English)—teaching and using sign language in the art classroom shows benefits such as, "...enhanced bonding and communication, development of fine motor skills, and assistance with reading and comprehension well into the elementary school years" (Jones, C. PCD, April 2006).

Group discussion and inquiry strategies used to explore meaning in the art room encourage students to have a two-way exchange of ideas and perceptions regarding what they see and feel regarding a work of art—giving them a voice in a structured safe space to ask for clarification, add to a discourse or express a perspective that may conflict with the mainstream opinion. According to

Lampert (2012), "Using critical and creative thinking helps students understand that there are multiple perspectives about art and about life." Both native signers and ELL students may take these newly found group communication skills and connect them to other disciplines, such as developing academic literacy and critical thinking skills.

Visual Thinking Strategies

As I made my way through my teaching observations in both schools and museums in New York City, I became fascinated with the methods of visual thinking strategies (VTS) that art educators were using to introduce complex, conceptual artworks to young students. The teachers that seemed to make the most impact on students (and myself) facilitated looking closely at deeper meaning—addressing more that the obvious assumptions one may have at first glance. Instead of telling the students what the artist intended or what critics pronounced was important, students are engaged in open-ended conversation that involves asking questions that tap into all five senses one experiences regarding a work of art. The students are encouraged to have a two-way exchange of ideas and perceptions regarding what they see and feel. According to Lampert (2012), "Using critical and creative thinking helps students understand that there are multiple perspectives about art and about life." Important skills such as close-looking, peer-to-peer learning, creative thinking, and problem-solving are developed.

In 1980s and 90s, Philip Yenawine—then director of art education at MoMA in New York City and specialist in implementing visual thinking strategies with museum viewers—wanted to find a way to not only educate beginner art viewers about a work of art, but teach a technique they could

implement on their own to find personal meaning in artwork. He wanted impact of the artwork to resonate with the viewer longterm—along with using these deeper-looking techniques for problem solving in broader applications in life. He partnered with Abigail Housen, a cognitive psychologist and pioneer in researching how viewers perceive artwork and approach finding meaning. Her previous studies revealed that viewers, “Using their senses, memories, and personal associations… make concrete observations about a work of art that are woven into a narrative.” (Housen, A., 1999, p.xxx). Housen found that beginner viewers resort to a personal framework when looking at works of art, using what is familiar to them regarding their perceptions of social, moral and conventional constructs. (Housen, A., 1999, p.9) Would a child—who grew up using a tactile, visual and spatial language in combination with vision, smell and touch to make sense of the world—approach understanding and communicating through artwork differently than a person who is perceiving their environment primarily through auditory input?

Rika Burnham and Elliott Kai-Kee—accomplished museum educators —also explore the nuances of guiding art viewers of all ages through visual inquiry. They wonder, do viewers actually need to be asked pointed and directing questions to fully grasp the meaning of a work of art or is this really just a way of feeding a novice art viewer predetermined facts? They research the series of actions a viewer cycles though to ‘experience’ an artwork, “...scanning its surface, grasping it as a whole, focusing on details, thinking and reflecting on them, pausing to look again, reconsidering the whole in relation to its parts, and so on. In the end, everything should come together, with the experience of the artwork unified in an expanded whole. Each encounter with a work of art ends differently, unpredictably… reaching a moment of culmination, a point at which the observations and thoughts of the group come

together." (Burnham, R. and Kai-Kee, E., p.16). Many art educators within an inclusive art classroom argue that visual inquiry questions are important kickstarters needed to lead a student group that may be coming from different cultures, language backgrounds or learning challenges to a shared understanding, "Some groups have rarely been asked their opinion before. Some groups have not experienced learning as interpretative and dialogic instead of didactic. Some groups have had no practice listening to each other. Some groups are scared to death of sounding stupid. Some feel highly uncomfortable in the galleries" (Delamatre, J., 2015). The topics of listening, interpreting, belonging, fearing—these are all very familiar feelings to native signers integrating within a hearing world's education plan. Research that studied integrated classrooms with Deaf, HOH and CODA students concluded, "An educational setting where D/HH children of hearing parents have access to a model of collaborative interaction and problem solving and also have the opportunity to participate in incidental communication will advance their linguistic and social-emotional development." (Jiménez-Sanchez, C., and Antia, S., 1999, p.223)

When considering this idea of a student group working together to come to a culminated understanding, I thought about Deaf culture's theory of 'Deaf Gain', a phrase used to describe the benefits of being Deaf and using ASL *gains* one entrance to a unique culture and a valuable way of life that eludes hearing people. These native signing students may be able to access a particularly original perspective as a group as, "The unique ways in which Deaf people organize themselves socially are often related to the visual nature of signed language. Dialogue, for instance, occurs between individuals, often arranged in circular groupings, with a heightened reliance on face-to-face engagement" (Bauman, H-Dirksen, and Joseph J. Murray, 2009, p. xx). What types of special and

meaningful insights could these students discover as a class that students from a hearing culture may not realize?

Multisensory and Tactile Teaching Strategies

Along with VTS using inquiry strategies, there are additional, hands-on, tactile approaches that greatly enhance the learning process in the art room for native ASL signers by tapping into their finely-tuned alternate senses. I started by researching Howard Gardner's 'Theories of Multiple Intelligences' that considers that a young learner's intelligence consists of a combination of relative strengths and weaknesses in different styles of learning (Moran et al., 2006, p. 25). When thinking about native signers in the art room, I found these categories to be relevant: Spatial Intelligence, the ability to orient and manipulate three-dimensional space and Bodily-Kinesthetic Intelligence, the ability to coordinate physical movement. Spatial intelligence is an imperative skill in the fine arts when tackling areas such as dimensional sculpture or proportions and perspective within figure drawing or still life. Research has found that native signers have the enhanced ability to generate visual mental images, to maintain them, and use gestures with hand shapes to express spatial visualization—for example, the mental rotation of three-dimensional objects. (Talbot, F., & Haude, H., 1993) Signers' enhanced visual imagery abilities may be tied to specific linguistic requirements of ASL such as referent visualization, topological classifiers, perspective shift, and reversals during sign perception. (Emmorey, K., Kosslynb, S., and Bellugi, U., 1993, p.181)

Bodily-kinesthetic abilities can be seen in performance art or envisioning and expressing movement and energy within an artwork. In particular, the creative ability to physically see and use the body to manipulate materials, syncing with the mind's intent to express a creative idea. A native

signer uses gestures and hand shapes when signing to participate in discussing works of art. “Students who learn kinesthetically will be able to remember the movements of the body and use this as a bridge to make connections to the information learned.” (Skoning, 2010) Perhaps this physical expression and muscle memory of signing particular artistic concepts such as textures, facial expressions of subjects or composition helps to aid in translation of the content and ingrain the intent of the lesson. Gardner’s theories of separate intelligences that lend to different learning styles suggest teachers should respond with particular methods of imparting information to a student based on what meshes with their learning style. It should be noted that there has been much debate in the scientific world about independent intelligences—many psychologists insist there is a lack of empirical evidence for Gardner’s theories. These psychologists theorize that the human brain operates under one general cognitive intelligence. (Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R., 2008, p.105–119) I feel that the specific strengths native signers show in spatial intelligence and bodily kinetic areas should be strongly considered when an art educator prepares a lesson, as the student may discover these natural tendencies as positive assets in art exploration. I also believe that in an inclusive setting, multi-modal materials that appeal to students with multiple types of learning tendencies will lend a rich multi-sensory context that will only improve learning for everyone.

Dr. Erica Warren, an educational therapist with a fine arts background, writes about multisensory activities that are engaging to tactile, kinesthetic and visual learners. She suggests warming up with doodling exercises, tracing lines over a copy of the artwork being looked at, experimenting with the fluidity of paint vs charcoal on paper, and collaging with textured materials that emulate patterns and textures the artist portrayed with mark making. (Warren, E., 2018, website) Young artists can create

dioramas or models of an environment to explore the realms of dimensional space. Showing young artists how to physically organize a desk space and set up materials before starting to work are also exploratory activities that will benefit these learners. Implementing these lesson ideas in the art room with Deaf, hard-of-hearing and CODA students gives them an approach that feels natural and intuitive—using their pre-existing understanding of space and dimension they bring to the table as native signers as a platform to build additional scaffolding of alternative physical ways to express their voice.

When a person tells a story in ASL, the aim is to describe—in multi-faceted, sensory-oriented details—perhaps the visuals that encompass the setting, the attitude of the characters, the smells of the food, the emotions that result from an action, the tactile feel of a material, and the vibrations of thunder with the feeling of static in the air from a storm. Emphasis is put on successfully drawing your audience into your particular narrative by using finely-tuned particulars and specifics. Being able to perceive these multisensory details in a situation and relay them using these methods is *essential* to true communication using ASL. One may also say that these are essential ingredients in creating a successful work of art, script or performance. A truly dynamic artwork envelopes the audience in the artist's content while simultaneously leaving it open to the receiver's interpretation. The writer, Holly Lisle advised for successful storytelling, "We have to see – really see – the people and places around us as if our bodies were full-sensory cameras and our minds were film" (Lisle, H., 2001). Perhaps after a dynamic visual inquiry with a group of students, there could be a brief ASL storytelling session where the students collaborate to tell the narrative of the artwork in an impromptu sign language performance, demonstrating understanding and elaborating on the dimensions of the work's story in a

familiar language space. The art educator could possibly take it even further by having the students build out a diorama, make puppets or create characters that interact in a ‘stop-animation’—bringing the still work to life in a dimensional space that appeals to multiple senses.

In addition to the collaborative benefits of VTS, these multisensory teaching techniques in the art room also encourage collective interaction between classmates, despite differences in modes of communication. “...it involves creating rich experiences in which students with different intelligence profiles can interact with the materials and ideas using their particular combinations of strengths and weaknesses. Often, these experiences are collaborative. As the amount of information that students—and adults—must process continues to increase dramatically, collaboration enables students to learn more by tapping into others’ strengths as well as into their own” (Moran et al., 2006, p. 27).

How can these strategies address challenges and help communication in the art room?

An art educator well versed in Visual Thinking Strategies will not only seek information from the student group verbally, but they may use physical cues such as pointing to areas of interest, “...keeping eyes focused on the subject of discussion… and drawing eyes to a spot others might have missed, and this gives everyone a chance to discover more while there” (Yenawine, P., p. 33). In thinking about some of the challenges native signers face with focusing in the classroom, this gesturing technique struck me as particularly noteworthy. Yenawine mentions pointing, paraphrasing and linking ideas are valuable tools that can bridge communication gaps and aid in breaking down language barriers as these methods, “...anchor words with images, a powerful way to increase vocabulary.” (p. 34) He also notes that implementing VTS in school environments, “...seemed to engage those who normally held back, or whose attention wandered, and to erase distinctions applied to students– gifted or challenged,

for example." (p.16) Elements of VTS combined with multi-sensory exploration in an art classroom could be invaluable, considering the difficulty Deaf and hard-of-hearing kids experience when trying to follow banter, initiate communication and express ideas during group teaching and inquiry.

In the United States, for over 100 years, the mainstream population has fabricated education of the Deaf community around what hearing people deemed appropriate—without allowing Deaf students to voice their own needs. Children learn at a young age to recognize the notion of 'difference' from the adults that guide them and the peers around them. People in the dominant group marginalize those whom they view as 'different', and by doing this wield a dangerous power. The hearing world has consistently undermined Deaf and hard-of-hearing people by treating them as inferior and creating structures that overlook their rich language and valuable culture. Generations of this social oppression and deep-rooted past inequalities—in addition to all of the other challenges I have mentioned—have manifested in these young students' identity construction and shaken their general confidence as able makers and explorers. Art educators can teach these strategies of additional visual expression to level the playing field in our increasingly inclusive classrooms as, "To aid in the progress of our multicultural society, we all must become aware of the institutionalized injustices that perpetuate oppression, and then we must work together to change these structures—from both the top down, and from the bottom up" (Callis, L., online, 2017). By giving our students alternative tools to communicate personal narratives, we can resurrect their confidence and give them back a 'voice' in their own education. Maxine Greene theorizes about creating social change through the arts by teaching a child to release their imagination, "Many of the alienated or marginalized are made to feel distrustful of their own voices, their own ways of making sense, yet they are not provided alternatives that allow

them to tell their stories or shape their narratives or ground new learning in what they already know." (1995, p. 187) Art educators are looking for ways to empower marginalized students (such as native signers) to take risks and face these challenges and constraints, while simultaneously promoting a positive and creative working environment.

This doesn't just apply to Deaf and hard-of-hearing students using ASL—CODAs also need a voice and a mode to express their frustrations with these injustices. Although CODAs have the ability to hear, they also feel the weight of oppression while straddling both worlds (and maybe struggling with not always feeling loyal to one side or the other in times of hardship. "Our uniqueness is about being parented by a Deaf person. A person that you can't just walk away from, avoid, or never see again. A person who is oppressed on all sides…by their families, by their education, by the media, by the judicial system, by their employer, and, yes, sometimes by their own children." (Williamson, A., 2012, p. 3) Using VTS techniques and multi-sensory strategies within collaborative art classrooms could streamline the process of appreciating, creating, and interpreting artworks through interactions among students and teachers, "... releasing students from the limitations of their verbal inarticulateness by helping them become empowered during their own experiences with creation" (Greene, M., 1995).

Visual Considerations of Classroom Design and Deaf Space

When considering setting up an art classroom space that enables and empowers visual communication and creative exploration for an inclusive group of Deaf, HOH and CODA students, the concept of Universal Design (UD) seems to encompass and inspire some basic necessities. UD focuses on improving usability, wellness, and social interaction within a space. Always an ongoing and responsive process, adapting a physical environment for a specific group ends up benefiting not just a

select few but all of us. (Maisel, J. PhD, and Ranahan, M. PhD, 2017) There is a particular philosophy that must be considered within the universal design of an art classroom using sign language. The concept of 'Deaf Space' promotes a visually accessible learning environment in classrooms and buildings where sign language is the primary mode of communication. (Bauman and Murray, 2009) Deaf Space keeps in mind the following modifications when setting up an inclusive art room for successful visual communication and art-making. The environment should be well lit and the instructor's face should not be shadowed to aid in signing clarity. Instructors can flash the classroom lights to call for the class's attention during student group work or enlist the help of other students drawing attention to the front. If the room needs to be dark to show art on a projection screen, the interpreter—and if possible the group of students—should stay lit for signing receptivity. Keep the wall colors and surfaces basic to minimize visual "noise" such as obstructions in sight lines, naturally directing toward the artwork that is the central focus. (O'Connor, G., 2018)

Another consideration an art educator must think about when setting up the art-making and instruction space is visually connecting to students with *eye-to-eye gaze.* 'Eye gaze' is an important attention-getting strategy—Deaf individuals in the classroom (both faculty and students) will instinctively monitor others' eye movements to assess the turn-taking and flow of conversation. (Mather, Susan A. 1987, p.13) Desks should be arranged in a circle or u-shaped configuration for easier viewing of frequent whole-group discussions along with the interpreter. Some learners may require a an individual work area if room activity stimuli is distracting. There should be space between seats and furniture for children to move around while making art and sharing with peers. Visual aids such as relevant imagery and a large whiteboard should be accessible for written instructions to

accompany oral directions. During visual inquiry, no music should play in the background that could interfere with hearing aid receptibility. While demonstrating a technique, the teacher should not demo and speak at the same time, as students can not lip read if the face is directed downwards.

Potentially when an art space is set up with these considerations and the teacher abides by these guidelines, the visual mode of communicating through sign language can harmonize and complement discussing and making art. Again, referring back to the defined spatial and sensory attributes that Deaf people experience:

> ...a visually centered way of orienting themselves within the world and a strong cultural bond built around their shared experiences. This design approach examines the sensory experience of deafness and the unique needs of the deaf body. This includes modifications in color, scale, transparency and light to better suit a visually based signing deaf individual. As Deaf Space uncovers the ways in which deaf people have manipulated and reconstructed space to suit their sensory orientation, information regarding the relationship between space and bodies can allow us to develop new ways of living in the world. (Legg, J. and Sok, S., 2012, p.6)

Art as a Visual Language

Paula Smith, an art educator with twin, hearing-impaired boys, researches how art as a visual language can help with linguistic development, communication and self-expression within general curriculum for in Deaf and HOH children. She refers to art as a series of symbols that can unlock communication barriers children experience when their home language is not mainstream, “Art reduces the problem of communication to one of translation. An idea is translated from the original thought into visual language. Verbal symbols, words, can then be meaningfully mapped onto the visual symbols. The visual referent acts as a bridge between the thought and the abstract verbal symbol with which it is associated. The result is communication” (Smith, P., 1995, p.138). Marilyn

Daniels, a professor and author who studies the effect of sign language on hearing children's language development, explains signing as a 'seeing language' because the kinetic sense of the language not only augments the usual oral/aural sensory channels but, "...literally allows a child to feel language." (Daniels, M., 1995, p.13). The idea of *feeling a language* led me to explore other realms of creative expression in relation to sign language as to better understand how it could apply to and influence art-making. Judging by the wealth of literature, the genre of Deaf poetry performance art seemed relevant and held many connections. The ASL Poetry Slam mission, a Deaf performance group originating in New York City, is to present and encourage new, experimental work using poetry, performance art, improvisation, literature, visual art, language and music. (www.aslslam.com) Skilled communicators in ASL employ creative *anthropomorphization*—using their unusual spatial and dimensional linguistic perspectives to embody particular human characteristics in order to give life to usually inanimate objects to more accurately describe a particular situation or narrative. Deaf Poetry has been described as "...the blending of two conceptual spaces—those of the signer and those of the entity depicted—as both the signer's body and the surrounding space come into play and as events are depicted rather than simply described" (West, D. and Sutton-Spence, R., 2012, p.191). Anthropomorphism is considered an innate tendency of human psychology that has been used in storytelling and artistic devices since ancient times. When watching a live Deaf poetry slam, it becomes clear that a native ASL signer naturally embodies a physical form of *anthropomorphization* as a valuable tool when telling a vibrant, impactful story in real time with intense detail and dimensional visuals. The performer uses poetry as a vehicle to expressing their feelings and ideas, enriching the audience with their message and perhaps activating change. Deaf poetry slams are safe venues for educating diverse audiences by way of performed narratives—giving a voice to individual

identities, oppression, and injustices within the Deaf community. This ambition is comparable to the intentions of skilled visual artists such as Christine Sun Kim. Deaf since birth, Christine plays with the concept "ownership of sound" through performance and visual art-making. She struggled with articulating her feelings, thoughts and ideas growing up with immigrant parents who were themselves just learning English and did not tackle ASL until much later in life. When she began to make art, her path to language acquisition became easier, "Art is like another language where I can truly, adequately and visually articulate." Kim's artistic practice is a linguistic study, where sound and her body are both the medium and the content. (Carlson, M., 2014, p.35) If native signing, experienced artists like Kim find that art-making is a satisfying alternate vehicle for expression and communication, I predict that children who are native ASL signers and struggle in other school subjects may feel previous communication burdens lift in the art room. How will these children incorporate their natural home language tendencies such as anthropomorphization, dynamic symbolism and their ability to 'feel a language' when responding to visual information in an art classroom?

Conclusion

After considering the reviewed challenges and extraordinary attributes that are observed in native ASL signers—such as enhanced abilities of spatial intelligence and elevated response to touch and visual stimuli—art educators can employ visual thinking strategies along with multisensory and tactile teaching materials to enhance interpretation, communication and understanding within the art classroom. Native signers experience issues with wavering attention spans—influenced by components such as peripheral distractions, processing delays through interpreters, or falling behind in following conversations and therefore a hesitancy to partake in group conversations. These challenges

are not always acknowledged with supportive solutions. Visual response methods for quick in-class assessment of student understanding could be one element that lessens the communication gap for native signers in inclusive classrooms. An art student's work can be used as a cognitive pathway into their understanding of presented material.

Considering similarities to ELLs, art inquiry and art-making could aid native signers still struggling with language skills barriers while immersed in a mainstream classroom that operates mostly in the dominant language. Hearing teachers (even if fluent in sign language) can be insensitive to native a signer's misunderstandings of basic associations, figurative language and customs that hearing students have experience with growing up with English spoken in the home. Using flexible, interactive teaching methods that do not depend on solely on auditory instruction, along with engaging in alternate learning styles that are visual, spatial, kinetic and tactile can help level the playing field for native signers in an inclusive setting. Using imagery and visual aides, along with encouraging a child to express understanding visually could bring mutual understanding. Group inquiry strategies in the art room such as VTS encourage students to have a two-way exchange of ideas and perceptions regarding what they see and feel, giving them a voice in a structured safe space to ask for clarification, add to a discourse or express a different perspective from their culture. The art educator can use methods of visual inquiry to facilitate engagement of students who may normally become lost when trying to follow banter—the structure allowing student to initiate communication and express ideas in a group setting. Important skills such as close-looking, peer-to-peer learning, creative thinking, and problem-solving are developed. Despite differences in modes of communication—student groups working together engaging these methods can come to a culminated understanding. If an art educator

considers emphasizing areas of a lesson plan that uses aspects of 'Deaf Gain' as an advantage, the native signer will be able to communicate on equal ground and seek solstice in their natural strengths and tendencies—possibly yielding a particularly successful process and product. In regards to communicating in ASL in the art classroom (teacher-to-students, interpreters and peer-to-peer), this physical expression and muscle memory when signing in discussion of particular artistic concepts such as textures, facial expressions of subjects or composition can helps to aid in translation of the content and ingrain the intent of the lesson.

Deaf culture's history and cultural traditions in arts, literature, language portray a constantly evolving and proud community. Art educators working with native signers should tune into this history of oppression, lack of recognition and voice within dominant cultures. Because of these cultural burdens passed along through many generations of Deaf families, even young ASL students may carry a remarkable maturity and sophisticated outlook that differs from privileged hearing peers. When these students are given access to and guidance in learning another visual mode of communication—art—the result can empower marginalized students. These deep-rooted past inequalities can affect a student's ability to communicate their developing identity. Art-making may give these students back a 'voice' in their own education.

Art educators must keep in mind Deaf Space modifications when setting up an inclusive art room for successful visual communication and art-making. 'Eye gaze' and consideration of a signer's sensory orientation are imperative for successful communication in the classroom.

Art can literally be considered an language—ASL poetry performance and artistic practice is a linguistic study, where sound and her body are both the medium and the content. Children who learn

to use art as a secondary language to give powerful voice to their struggles, may feel the burdens of miscommunication pressures of adult responsibilities lift in the art room. My research will explore how native signers incorporate their natural home language tendencies such as anthropomorphization, dynamic symbolism and their ability to 'feel a language' when responding to visual information in an art classroom.

As I gathered this vast range of literary exploration focusing on varying elements surrounding Deaf culture, community and American Sign Language with the intent of directly comparing the physical language of signing to the physical act of art-making—I realized there were so many other factors that played into why I might find very special perspectives, approaches, processes and products in an art classroom community of native signing students. Although there was very little literal information regarding the direct effects of how sign language influences the on the way a person looks at and makes artwork—a central and key element repeatedly arose from within the history, science, cultural and social aspects of the sign language community when reviewing related creative topics. At the root of a flourishing and effective inclusive signing classroom community, there seems to be a necessity to build a base of free-flowing communication and understanding between the students as a group along with the individual students with the teacher. Focusing my sights on an art classroom inclusive of Deaf, hard-of-hearing and CODA students whose primary, home language is ASL—my intent in this research is to focus on what communication looks like during an art lesson mindful of using visual thinking strategies accompanied by multisensory art-making techniques and materials, within a bilingual ASL and English, urban, public elementary school art classroom. I hope that art educators with inclusive classrooms can use this information to give native ASL signers equal footing

with their hearing peers when responding to visual information and voicing what matters to them through making meaningful art.

> ...students can become empowered when they see that communication does not have to exist only in spoken words. In teaching students of different ages, languages, ethnicities, cultural patterns, and academic abilities, the two authors of this article found that incorporating signs into a class builds a cooperative environment, enthusiasm for expressions, quick assessment of focus and comprehension, exploration of language combinations, scaffolding for words and concepts, possibilities for acceptable motions that add a sense of fun and freedom to the classroom, and consideration for people from other cultures, particularly the deaf culture. (Heslinga Ed. D., V. and Nevenglosky, E., 2012, p. 5)

Methodology

Why Qualitative methods for this research?

In order to document this art classroom's context and identify communication methods within this learning environment, I felt qualitative research done through observations and interviews (both casual and formal) were the best methods to gather meaningful, honest and relevant information. To gather data on students' interactions with and responses to talking about and making art, I felt it was important to observe the students in the classroom setting. I also engaged in informal conversation with the students during art-making about the process they were engaging in, creative topics introduced in the lesson or their general experience navigating this particular school experience. As the relationship grew between myself and the students, I included the abundance of personal information the students volunteered about their backgrounds or families as additional valuable supporting data. The research and findings need to reflect the multiple perspectives of the students, the art educator and orbiting influencers like the ASL interpreters.

Study context

I chose an urban, public elementary school on the United States east coast that has a specialized bilingual classroom population composed of students that use ASL as their primary home language because they are Deaf, hard-of-hearing or CODAs. Because of the rare and particular nature of this ASL school, the classes are small with a low student to teach ratio (191 total students) and it also houses grades 6-8—the upper school having art classes only the second half of each year. Over 100 years old, this school was the first non boarding or residential school for Deaf children in the state and boasts it offers the 'least restrictive' environment for Deaf students within this city's Department of Education.

Study participant demographics

The art educator: The primary art teacher (I will use the pseudonym Ms. L) is hearing and not fluent in ASL but uses frequent signs while speaking English to enhance understanding and add clarity to her art lessons. Ms. L is a recent graduate of Teachers College at Columbia University and was also a student at The Sign Language Center (a prominent, Deaf-owned and run school that teaches the public ASL)—therefore very understanding, accessible and willing to provide information about her personal experiences in this niche classroom, opening the door for me to pursue my own observation and research. Although Ms. L teaches every grade in the school (pre-k through 8th) this study focused on students in 3rd, 4th and 5th grade, enrolled full time in this public school, required to take a 55 minute art class twice a week.

Ms. L builds her own curriculum and lesson plans, inspired by guidelines in the National Core Arts Standards and Blueprint for the Arts. The course content (varied slightly for different grade levels) focuses on introducing influential past and current movements and artists through various methods of art inquiry, experimenting with physical, multisensory art-making techniques, self-exploration and expression, along with troubling-shooting arising challenges (both personal and larger picture) via peer collaboration and critique. She plans her lessons—remaining flexible regarding subject matter and timing—based on what is relevant to and naturally connects with her students. Ms. L has developed close relationships with many of her students after observing them working in the art room year after year. She notes that because of the old history of this school, there are many generations of families that continue to send their children there. She comments that unlike her art curriculum, other subjects in this public school are very regimented with pre-made lesson plans and even a script to follow when introducing new concepts. I will show later different ways Ms. L's allows flexibility in her lesson plans to allow native signers a release from imposed burdens of responsibility that are often put on Deaf and CODA students at home. She also comments that although the teachers have a close knit social community within the school, they do not collaborate frequently on projects that compliment content that extends across the school's wider curriculum.

The students: The students in this study range in ages 8 to 11 and because there is only one class per grade, the same group moves together through each grade. In addition to the heavy cultural bond that native signers and their families carry, the students are incredibly close—literally growing up together as they progress through each grade, with little variation of new students entering the picture. The student backgrounds are comprised of diverse ethnicities and origins, the school's minority

enrollment at 77% of the student body with the majority as Hispanic.(publicschoolreview.com) There are also varying socioeconomic factors at play, as this is a school in the heart of a fairly wealthy city neighborhood, but many of the students are bussed from far away to be a part of the ASL community in a school setting.

The interpreters: Because of the range of each student's relationship to communicating in ASL and the teachers not all being fluent in sign language, each Deaf student is accompanied by an interpreter in all classes to translate the lesson and voice the student's input when necessary. Along with their basic job description, the interpreters seem to also play a role of disciplinarian, mentor, teacher and friend to their paired student. I will provide more details on these roles in my findings.

Data Collection

Observations: To understand more about how this particular grouping of students responds to visual information and how this teacher leads the class through successful art inquiry, I first and foremost wanted to closely observe the class in action—the social and casual aspects of student interactions, the lesson introductions, the dynamic of art demos and the students' art-making in response to the inquiry, problem-solving prompts and multisensory materials at hand.

I formally observed four, 55 minute art classes in Ms. L's art room. One 2nd grade, two 3rd classes and one 5th grade class of 15-18 students that included a majority of CODAs, three or four hard-of-hearing children and one or two Deafs students in each class accompanied by a personal, DOE provided interpreter. I made a short list of observational protocol questions (see Appendix A) to guide

my noticings and ensure I remembered particular details in my field notes about specific happenings in the class.

Interviews – both casual and formal*:* Two interview protocols were developed. I began with open-ended, casual questioning with Ms. L regarding informal pre-lesson plans and a short post-lesson check-in at the close of the class—noting details in an interview journal following these discussions. Towards the end of my observations, I continued investigating by developing an individual 40 minute interview conducted in spoken English and audio recorded with Ms. L to obtain further details on her background, her educational philosophy and its relationship to her specific teaching practices, along with her perceptions and expectations of the students and their learning processes. By method of casual discussion, I looked into getting the viewpoint of the students' personal interpreters that were provided by the Department of Education and followed their student to each class during the day. They have a unique understanding of the children's learning process and growth—both interpreters that I spoke with informally had been paired with the same Deaf children for many years. My daily conversational, more informal questions with Ms. L and the interpreters were aimed at understanding more about their students' personal histories and their prior connections to the arts. What aspects of artistic expression in art class did these adults—so connected to their student's daily learning processes and modes of communicating—observe as important and relevant concerning the child's success in communication? I wanted to understand more about what teaching elements and techniques contribute to 'successful' communication and a positive artistic learning experience throughout an art lesson. How could these progressions be assessed, considering the particular visual form their home language instilled in them.

Informal student interviews and work assessment*:* During project work sessions I walked around, conversing in both ASL and oral English with many of the students about the content of their work, asking for their thoughts behind of specific designs, symbols, colors and mark-making choices.For example, did they like the artists presented and why? How did they feel when they were working with the medium at hand? Did they like making art and did they make things at home? If the student was distracted or purposely isolating themselves I engaged them in conversation that attempted to get to the root of their disinterest. I took photos of the student work as visuals that I could connect with my conversational findings. Choice work that illustrates my findings can be viewed after the appendix.

Data Analysis: Methods of Organizing and Coding

I transcribed the formal interview with Ms. L and compiled this data with detailed excerpts, notes, memos, photos of student work and summaries from all field notes taken during four observation sessions, informal student and interpreter interviews in Ms. L's art classroom. I was guided by John Creswell's qualitative inquiry and research methods to organize, analyze and code my data. (Creswell, J. W., 2013, p.179-188) After organizing the data, and deep diving back into it as to become intensely familiar with all of the results as a whole, I began sectioning the data according to open categories—some were familiar from my literature review and some were newly emerging themes that presented themselves. I formed a comprehensive outline of noticings, experiences, project outcomes, and connections that fell within these emerging categories. Some basic motifs came to light regarding how these children were engaging in art as an alternate form of expression and communication in the classroom. I also felt it was necessary to point out any disruptions or contradictions I saw in my research in comparison to past literature. I also kept an eye out for what was not mentioned or

addressed in the classroom when I felt it ought to be, along with noting observed breakdowns in communication and examining these silences.

Efforts to Ensure Study Credibility

In regards to my observations, conversations and findings connected to the students, it was important for me to discuss and substantiate my outsider perspectives and considerations with Ms. L and the interpreters' viewpoints—taking into account how well they know their students' learning and communication habits. The nature of trying to define intentions, meanings and articulations within a child's art-making journey is by far an exact science. My decoding of the patterns and themes I see as the observer along with my opinions and connections about art and creativity in general will most definitely depend on a slew of personal variables such as my culture, environment, relationship to art… the list is infinite. That said, an important aspect of ensuring this study's credibility involves recognizing and reflecting on my own identity as a hearing person—taking a second look at my perspective and privileges. I am a white, middle-class, female artist who speaks a dominant language and was educated in a mainstream, financially stable, public education system that much lacked in diversity. The artwork I create rarely stands on its own without a verbal component. art-making has always been a fairly accessible communication outlet for me. For this research project, I ventured into an environment where I was the minority—in this case a school where most everyone shares a Deaf cultural bond and speaks ASL as their primary language. At many points in my journey of learning sign language and integrating with members of the Deaf community, I have become self-aware of my own form of communication seeming 'impaired', constantly aware I was observing from an outsider's perspective. Dirksen Bauman, a hearing professor who became fluent in sign language when starting a

job at a Deaf college, signs in a TEDx presentation what 'losses' he realized he experienced as a hearing person in a Deaf world, "Entering into an area of the Deaf community without ASL fluency let me experience a fragment of what it means to be Deaf in a hearing world. It is at this time that one acquires a new, distinctive self-identity as "not-Deaf." (Bauman, D., YouTube 16:30) As a hearing person with no Deaf family members, who is proficient but not fluent in ASL, I do not have full inclusion within or completely open access to the Deaf community's viewpoints and perspectives.

Findings and Results

After analysis of the research data organized and coded as described under 'Methods', my following findings and results address recurring themes and patterns that surfaced regarding all forms of communication in the art room between the students as a group, the students and art educator, the interpreters and in the discussion and making of artwork. As I observed, interviewed and conversed within in this environment, it was important for me to to understand what elements within an art classroom seemed to engage a native signing student. What do I mean when I use the term 'engaged? I seeked to understand what creative circumstances seemed to enhance positive communication in an art room of native signers—looking at their responses and reactions to looking at and making artwork as a secondary language of self-expression. This extraordinary group of students worked in the art room comparable to a tightly-knit family within a small village community. Because of their shared culture and learning experiences, these young students had an existing base of free-flowing communication and understanding between them. I observed how these communicative interactions and peer

relationships were enhanced and defined by specific creative approaches and exploration that complemented the nature of native signers.

The Physical Set-up Of an Art Room Affects Communication

Although the class sizes are small (9-13 students), the seating arrangement is key to the lesson's impact and success—Ms. L is constantly playing with the student seating chart to find the best grouping of students that work well in close proximity. The art room is large, about 800 square ft with floor to ceiling windows dousing the room with natural light. The walls are clean and white with thoughtful placement of colorful visual classroom guides. The modern cabinets and counters running around the side and back of the room accommodate well organized supplies, bountiful drying racks and boast two sinks. When setting up this art space, I felt the educator had only partially considered the abundance of research promoting basic Universal Design, Deaf Space, and Eye Gaze as crucial to success in any classroom comprised of native signers. I was surprised that although the students were sitting in close physical proximity—there were two large groupings of four or five individual desks forming 'floating islands'—but they were facing each other and had their backs turned to other students, with only a side view of the teacher and interpreter if they were at the front of the room. There are two rows of 'curved U-shaped' desk arrangements in the back of these grouped desks—these facing front but again leaving the last row of students facing the backs of the row in front of them. In the course of my observations, there were multiple examples of this desk setup causing student frustration. A profoundly deaf, third grade boy Eli (to ensure anonymity, pseudonyms are used for all student names) is having a hard time seeing his interpreter and the teacher's visuals in the second row from the back. He begins to fidget, distracted by a peer trying to sign him missed

instructions and is repeatedly disciplined for not paying attention by his interpreter as she is translating! He is openly expressing frustration and only after much commotion is moved to the teacher's desk at the front of the room to work, seemingly isolated for his disruption rather than a better sight line. The class was sketching ideas for personal super heros and once moved, he produced two intricate and focused character drawings that he showed me with pride and communicating much accompanying detail of his thought process in designing them.

Above each table area a hangs a color square representing student groups. Ms. L assigns the chores to each table—this lesson focusing on streamlining the initial supply gathering and clean up after the lesson. She dedicates half of a class period reiterating how the color coded desk systems work with the assigned jobs to ensure the students break a previous pattern of wasting precious art time with a chaotic beginning and end of class. She carefully writes the steps of the process and jobs on the whiteboard along with rehearsing each group's role in the larger process. During a post class check in, she explains to me that her curriculum puts strong emphasis on good studio habits such as care of materials and time management as she hopes these skills will carry over into all aspects of her students' daily planning. She loses their focus, attention and valuable class time in the miscommunication and disorganization that usually ensues each period—she now understands her students thrive when she provides a very specific framework of roles and steps reiterated in sign language, oral English and visually on the large white board in the front of the classroom.

During the full extent of one class while students are working on large sized paper developing superhero characters, a HOH boy named Luke literally hides under one of the desk arrangements, ducking the physical taunting of another CODA student, Leo, sitting back to back with him. Both

students are missing the content of the lesson because they are distracted by each other, turning around in their seats and eventually Luke leaving his designated spot to seek refuge. Noticing this situation, the next class Ms. L employs flexibility in the physical seating plan to overcome this communication issue by moving Luke to the front of the room during her introduction. As the children begin to work on the large sheets of paper, Ms. L realizes the best way to quickly avoid students' work from bumping up against one another is to move six students to the floor where they can spread out. The floor work space seems to improve social interaction within the space. The artists organically choose to face each other in a semicircle—creating a space where the possibility of 'eye gaze' makes conversing in sign language and oral banter while working a natural possibility. In a post lesson check-in with Ms. L, she comments on the noticeable improvement in cooperation, focus and communication between students when they began to use the floor space as a work area.

Creative lesson plan techniques that facilitate communication and engagement

Guided visual thinking and inquiry in lesson introductions: The students face Ms. L at the start of each class for an introduction to a new artist that is relevant to the course of the art lesson to follow. An example of a particularly engaging class intro begins when Ms. L shows a large projection of Picasso's Guernica painting (also passing around smaller color copies) while initially discussing Picasso's historical journey as an artist. She begins a visual inquiry to draw the students into looking closer at the art work, strategically pointing and gesturing to specific areas of the painting to draw visual focus to her verbal points. How old do you think Picasso was when he painted this? What shapes do you see in this painting? How does the artist use lines to guide your eye around this narrative composition? What mood does the color palette reflect? What are some stories the artist

could be trying to tell the viewer if we put these clues together? The students are being encouraged to raise hands but more often add to the discussion by shouting out. The Deaf students and HOH students are responding in equal proportion to the CODAs in both ASL and orally. A profoundly deaf student, Jeremy, has a very high level of oral/verbal communication and contributes seamlessly along with his fellow students. Despite what I expected, he does not seem lost in this group discussion frenzy as his interpreter is skillfully relaying the oral 'shout-outs' and he doesn't need to lip read. The hearing CODA students do not appear distracted by Jeremy's interpreter enthusiastically signing in front of them for the entire lesson—in fact, I notice that many gaze back and forth between the interpreter and Ms. L while they listen.

Ms. L uses signs to emphasize specific words like 'shape' and 'color' and 'animals'. I am intrigued by the interpreter's methods of describing Picasso's cubism style by literally mimicking the 'displacement' of facial features by rearranging his own with hand shapes moving around his face. The students' body language shows engagement and barely-contained excitement while participating in the visual art inquiry. The group of native signers responded to *particular* cues while being lead through Ms. L's visual thinking process—with the following collaborative discussion leading the students towards her intended insights and realizations about Picasso's work. Up until this point, the students were not understanding that this was a painting about death, destruction and war. When first asked how the participants within the painting may have felt, the students missed the mark—asking if they were disco dancing or playing. Ms. L then asked, "What do you think the characters are feeling based on the look in their eyes and facial expressions?" The students suddenly comprehend the dark mood and pain that accompanies the circumstances of war in Guernica, perhaps because body

language and facial expressions are critical in defining meaning that accompanies signs and gestures in ASL. In fact, a specific sign can have two, opposite meanings depending on the accompanying facial expression, shoulder, eyebrow and mouth positioning. Ms. L is careful about giving each child a chance to add something to the discussion, never insinuating that there is a wrong answer and adamant the class focuses on each participant so their individual story and voice is heard. Ms. L's inquiry also explores shapes and lines the artist uses to guide a viewer's eye around the painting's landscape. She finds focusing on shapes draws her native signers deeper into the composition and meaning, possibly because feeling shapes within a space is directly connected with sign language. Handshapes and classifiers are imperative to interpreting spatial relations, directions and descriptive details used frequently in ASL. As she speaks, the interpreter simultaneously uses his hands to give examples of different shapes, reiterating and connecting the shapes that carry meaning in the artwork to shapes that carry meaning in their first language.

Multisensory and tactile materials combined with personal narratives

I notice at the front of the classroom there is a colorful, large interactive sign that accompanies Ms. L's verbal and white board listed daily instructions. (*see visual 1*) The title reads, "*WHAT ARE WE DOING TODAY?*" and for the current project there are six steps, each accompanied by a movable, card with a photo illustrating the instructional text. As she verbally runs through the sequence of events to follow for the project, she picks students to select the appropriate card and attach under the step number. If a student is distracted or unable to follow the verbal instructions during the introduction, they can visually check the board and realign with the group. This can also help a visually oriented learner plan the set up of their work space by presenting photos of the required

materials to be gathered. These visual sequenced cards also help with time management, aiding in understanding of the full scope of what needs to be accomplished in a specific class period. All of the supply bins have a color photo of what is inside taped to the front for easy location, along with larger photos pasted on the walls above of how the area should look when properly organized (markers categorized by color, small scissors in bin adjacent to large scissor bin, rubber band jar next to the twist ties jar). Using photos next to text on labels not only helps keep the room organized and facilitates easy set up and break down, but after seeing the accompanying visuals, the native signers begin to naturally associate the printed English word with the visual image aiding the secondary language learning process.

In our initial interview when discussing ongoing challenges, Ms. L mentioned that she was frustrated with the lack of information retention she was experiencing in regards to talking to her art students about the history of an artist, showing them visual work by the artist and understanding how their work can be relevant and inspirational to the current art project. In speaking with her recent graduate peers who were teaching in schools that were not specialized in ASL, it seemed that 2nd through 4th grade was very engaged in and retentive of a verbal presentation accompanied by visual slides introducing an artist. She began to experiment with what effectively helped with engagement and memory retention. Before the starting the work session, Ms. L leads a physical demo that not only explores the skills and methods involved with the materials, but additionally shares interesting and curious personal narratives about the artist that directly connect with something happening in her students' lives. I did note there was still a bit of disconnect for the Deaf students during demos as the interpreter would take attention away from the student watching the physical demo if the student

wanted to keep up with verbal stories told while Ms. L worked. To aid in the translation of content and help ingrain the process and intent of the lesson—she makes the demo experience interactive and collaborative, incorporating student participation. She shows a step or technique and then has a student try it in front of the group. Involving the students in the initial tactile and physical learning process complements the native signers' natural tendencies of expression through movement—potentially creating lasting connections to the information. She purposefully chooses artists that play with tactile materials and multisensory engagement such as Yayoi Kusama. After looking at the patterns, mark-making techniques and environmental spaces Kusama has created, Ms. L's lesson incorporated this inspiration into painting gourds with tactile mark-making.

Ms. L says, "For example, in talking to them about Kusama, along with showing them images of her super visually engaging work, I did a quick verbal run down of who she is and what style of art she makes… then looped back, casually and verbally assessing their retention of what we just discussed. They just looked at me blankly, did not absorb most of what I said, they seemed very bored. The couldn't even remember her name!" (Interview, 2018) Ms. L pivoted her approach, diving a bit deeper with a narrative into Kusama's struggles with mental illness and feeling 'different'. She relayed that Kusama used art to explore her identity and personal voice, art becoming an alternate tool to express to the outside world that she had her own ways of making sense. (Kusama, K., 2012) Ms. L made connections between the artist and similar risks, challenges and constraints a young native signer may experience in a hearing dominated world. She had them each come up and try different techniques painting a pumpkin in a similar dotted design as Kusama's art. "Kusama's story struck a chord with some of the students—they were engaged, asking specific questions about the artist with requests to

see more work. As soon as they connected to the artist and there were things for them to be touching, doing and moving, I could tell they were absorbing the information. I also saw elements of Kusama's polka dots reflected back creatively within in the students' personal work." (Interview, 2018)

Another tactile project the students connected and engaged with by enthusiastically sharing work with their peers and the teacher was using a ruler to practice drawing lines with pencil, creating optical designs and patterns on large sheets of white paper. After having an inquiry into the work of Wassily Kandinsky and exploring his abstract line and color compositions, Ms. L gave them a specific count of 25 lines that could be drawn crisscrossing in any direction with pencil. The students counted orally and in sign language within their working groups, enjoying the control a ruler gave them to make a straight line while focusing on giving their work an individual twist. To soften the hard-edged, graphic nature of the lesson, she then had them use soft pastels to apply colors into some of the shapes that were created in between the lines. To promote purposeful and educated visual choices, she demoed using a scrap sheet to test the particular effects specific colors had when vibrating against or complementing adjoining hues. The students seemed to delight in and adapt seamlessly to using their fingers to blend and mix textures and gradations of pastel colors. More than one student commented to me that they loved the way the soft pastel felt when being applied to the paper, so smooth and fluid as well as satisfying to blend into custom colors. Could this enjoyment and fluidity stem from their natural finger dexterity built through signing, perhaps triggering an innate confidence using a medium that employs the fingers for expression?

Creative Lesson Themes that Synergize with Native Signers' Strengths

Exploring the self: A very successful lesson that I observed in Ms. L's art room revolved around each student drawing a large self portrait of themselves as a superhero. If you could have any power, any ability, any sidekick or help anyone, include this in your drawing. The purpose of the lesson was to explore the self, begin to envision and develop a larger identity for yourself, a wider perspective on what you deserve and can achieve and slowly scaffold these seemingly whimsical ideas into believable and realistic goals. Ms. L speaks about the most important underlying concept within her lessons, "Honestly, no matter what your first language is, there has to be a connection there. The most tried and true method I use to engage a child is to have them make something about themselves. Even if it's not literal, the projects are successful if they explore emotional dynamics and roles within a student's family or inquire deeper into their favorite things—things that represent him, things he cares about and wishes to give voice to, something he wants to change about the world." This founding concept resonated with me as entirely beneficial to this group of young native signers—referring back to Maxine Greene's point regarding the marginalized become distrustful of their own voices because the mainstream population seems to make rules that restrict Deaf students from voicing their own needs.

Taking Risks: There is a large handmade sign on the door of the classroom stating, "Creativity takes Courage – Henri Matisse" (visual 4). Ms. L talks about the importance of native signing students learning to take risks when envisioning who they can be—stepping outside their comfort zone, as they may have learned to be complacent with the role of taking a 'back seat' or letting other people speak for them in fear of not representing themselves properly. Ms. L began a lesson with fourth graders creating a four panel comic strip that potentially illustrated an uncomfortable or awkward narrative inspired from a personal experience. Only a few students actually addressed an incident that seemed

personal, the most prominent comic portraying a girl literally shrinking to a small speck because her heart was broken by an insolent comment thrown out by her crush in a crowded school hallway. (Visual 3)

Ms. L also revealed how a lesson in taking risks can backfire if a student is pushed too quickly in a group setting before they are mentally prepared. She introduced a lesson on blind contour self portraits. "I got out the mirrors and one girl was so freaked out as she started to look and draw, that she burst into tears and had to leave the classroom. She found the pressure of looking at herself and not caring about what the end product looked like too overwhelming. She verbally interpreted these feelings into 'I don't like drawing, I don't like art and I don't like this, [ending with] thank you for the worst part of my day!' I thought it was an opportunity for us to all be silly about the way we look and it really backfired on me. I had to backpedal and do a few projects that focused less on the self and end product and more about process and discovery." Ms. L realized that slowly building up assurance through deep looking at a young age will lead native signers to feel more confident later on. "When it comes time for an older student to express a specific concept through art and have it look a particular way, they will know how to do it with the physical and mental skills we have practiced." (Interview, 2018) A lesson building confidence to communicate fearlessly and openly is an important tool these students will need outside of school. Ms. L reiterated this again when speaking about Kusama finding her own artistic voice and not succumbing to people disregarding her art work because of her struggles with mental health.

Dream big with larger-than-life characteristics: The students were encouraged to give anthropomorphic, larger-than-life characteristics or actions to their invented superheros, such as godly

powers, animal abilities or instincts and sidekicks that were not necessarily human. A common theme I observed in many superhero drawings were powers or elements that activated change or help the weak. Jeremy's superhero was titled, *STRONG BOY* with flaming hair and worshipers gathered around him, but he seems to have heavy weights where his hands would be! I ask if the weights prevent *STRONG BOY* from signing but he shakes his head, no. There are a lot of characters that curiously involve large ears, vampires, cats, wolves, crystals, time traveling devices, friendly animal sidekicks and my favorite—*SAFETY GIRL*—wearing a large sash emblazoned with '*BE KIND, BE SAFE, I WILL HELP*'. When students asked why I was joining the class and looking at their superheros, I explained that I was trying to understand connections between kids using sign language and kids expressing themselves through making art. Two of the students showed me the proper way to sign this question and responded together saying, "We are better at seeing things around us, we notice details and communicate with our hands, just like the art we make with our hands. Our superhero story tells about who we are!" Ms. L commented that at the end of the day, it is only a successful lesson if the child cares about what he made because it represents him and is inspired to start the next project.

Integrating Deaf pride, culture and community into creative discussions and art-making

One common theme that came up consistently in peer-to-peer, student to teacher and in my casual conversations with students was their pride in being a part of Deaf culture and the tight-knit community of Deaf families in the city. When making art that involved self-exploration, many of the students spoke enthusiastically about their families in relation to sign language, proudly telling me narratives about influential relatives in the Deaf community. These conversations opened up communication at the group tables and other students were eager in this context to chime in about their

or a peer's artwork's content or narrative. Expressed to me in sign language and orally—the drive to express to an outsider the importance of the Deaf community was overwhelming. The CODAs told me about their deaf family members, the Deaf students told me about the best way to become fluent in sign, the interpreters boasted about their Deaf students' accomplishments and influential relatives in the Deaf community—all of them bursting with motivation to educate the hearing world. This school has a strong alumni group, Deaf families have been sending their children here for generations. Ms. L understands the important need to recognize this pride in her assignments and lessons, "Students are intimately connected to each other in this school because their grandparents went here, their parents went here and the parents all know each other through the Deaf community. The classes are small, every year for the last seven years they have been learning together. The students have a brothers and sisters dynamic—they even fight like that—they are loyal in that way, they are like family." (Interview, 2018)

When I introduce myself verbally to the group I also sign my name. A deaf student named Michael literally jumps out of his seat, introducing himself and signing proudly that he is Deaf and an artist! He is pleased that I have an official sign name and is impressed that it references that I am also an artist! Having a sign name is important in the Deaf community as only a Deaf person can give another a particular gesture that reflects something about them as an official nickname. As I walked around the group tables as the students worked, there was an abundance of communication at the group tables—students were eager in this context to chime in about their artwork's content or narrative. Within all of the lessons—the superhero character, the rising action and awkward moment climax comic strip and the Picasso Guernica discussion—I noticed a subtle, underlying theme of dealing with

social oppression. Perhaps an making art is an opportunity for Ms. L's students to communicate feelings, emotion and general hopes on paper that would be normally difficult to voice in a classroom situation. In her introduction to Picasso's work, Ms. L stressed the importance of how at first, Picasso was chastised and misunderstood even by friends for expressing himself differently with a style that was not accepted as 'normal'. I thought it was clever that Ms. L spoke of Picasso of risking mainstream disapproval by standing by and pursuing his differences in opinion regarding what was defined as 'art'—this conviction eventually becoming his ultimate strength in the artworld. Each lesson emphasized respect and acceptance of differences while taking pride in your culture and family.

Native signers show a lack of assumed mainstream frameworks

Ms. L brings up an important point when discussing the planning and introductions of her lessons. Very similar to hearing, mainstream students—when her native signing students are looking at artwork from different points in history—they don't have experience to explore new concepts yet with preconceived notions of art history. Most young students looking at historical artwork use a personal framework, memories, personal associations, and what is familiar to them to make sense of the narrative presented in from of them. They relate what they see to the self—its is what they need to know and explore first. Ms. L does notice that her native signing students need her to provide a more detailed background and framework to what they are looking at as a result of many native signers experiencing delayed language exposure as a child. As previously discussed, screening babies for hearing loss was not always accurate or enforced in early childhood, along with parents possibly being deterred by doctors from jumping right into ASL as a first language with accessible intervention strategies. A hearing child's general framework regarding the way the world works stems from

constant auditory input they experience in the world around them, "...learned indirectly from overhearing conversations of others, from television exposure, and similar sources." (Marschark, M., 2001, p.3) Ms. L talks about how she is constantly reminded of this when encountering issues with comprehension regarding content she originally assumed would be understood with no explanation. The native signer may have a bit less vocabulary and background information on worldly concepts when building their framework. Instead, a native signer takes what is familiar and processes the information through their own internal constructs that were built without external auditory input—creating their own interpretation and perspective that may differ from the mainstream. Although sometimes these interpretations or misconceptions could appear at first ignorant or naive, it must be noted that some areas within a young native signer's framework could be more evolved than a hearing child's—such as reception of facial expressions, sensory perception, and engaging in social challenges concerning communication, independence, oppression and intolerance.

Ms. L speaks to misunderstandings that can stem from this, "The ASL kids have a vocabulary pool that is a lot smaller, sometimes I have to rephrase or reframe it to simplify a concept, using words they are familiar with. In the beginning, a kid who is hearing just knows more words, concepts may click a little faster for them." (Interview, 2018) This can affect the student's confidence to express themselves in a group. I observed a situation with a artistically talented third grade HOH student, Maria, that illustrated just a slight misunderstanding relating to vocabulary and storytelling attributes—lead to a lack of confidence in achieve expectations and a hesitation to begin the assignment. Ms. L introduced a lesson on comic panels and their narrative structure by showing a *Garfield* comic joking about the concept of 'extinct species' as the punchline resolution of the dialogue. As I walked around looking at

student sketches, Maria commented that she didn't get the joke—what was an 'endangered species' and how was that a 'punchline'? Ms. L takes extra time in her lessons to scaffold creative vocabulary skills and how to use tools that may be unfamiliar. She will use a full class period to just practice mixing paint or using a ruler or gluing techniques, "...taking time to do those things that aren't as fun for me to teach but building up artistic vocabulary and tactical skills also encourages and builds up a young artist's confidence to express. If this is happening then I did my job right...I think about this a lot, how can I set them up to just dive right in and be excited and happy to work." (Interview, 2018) Ms. L's main goal is to give kids a space where they are not afraid to try something new even if they haven't had the opportunity to gain previous experience—and that they make something that they care about.

Distractions Observed in the Art Room

Luke, the HOH boy who prefered to hide under the desk despite his seat change, is still avoiding all communication with other students, trying to become invisible by literally pulling his hood over his head to hide his face. There is no possibility of lip reading or watching the interpreter from inside of his hood, therefore missing the introduction of the lesson, the accompanying project preparation and group participation. Fortunately, Ms. L had spoken the day before with his mother about Luke's continuing refusal to participate. His mother knew right away that her son did not feel comfortable sketching on paper from his imagination, but does connects with organizing spatial geometry and patterns. Ms. L again remains flexible with her planning—once the class is in working mode, she pulls Luke aside and suggests a more tactile method—he cut shapes from multi-colored, textured scrap paper to glue down on cardstock, with the aim to create an abstract and dimensional superhero

character, modifying the project by introducing a different medium that is more conducive to Luke's strengths. Just as some of the students felt more comfortable working independently from the group on the floor, here we see another example of varying learning styles pushing art educators to be flexible and creative with tactile materials. With the help of parental insight, Ms. L modifies her original plan by engaging in alternate learning styles that are kinetic and multisensory. Luke had employed purposeful blocking of visual communication as a signal for help that the original method assigned was not something he felt comfortable with.

Ms. L's co-teachers in other subjects comment to her they feel attention and focus are common issues with ASL students—they tend to 'phase out' and 'daydream in a bubble' when the teacher lectures at the front of the classroom and the interpreters hands are flying. Ms. L commented that the other teachers consistently remark enviously how 'engaged and excited' the students seem when it is time to enter the art room—moods lifting as students temporarily put aside distracting mental baggage when it's time to make art. "As kids, they haven't learned how to deal with the distraction factors yet. Even the CODAs struggle with this—the lesson needs to be happening, hands on and very visual." (Interview, 2018) I observed in the art room, both Jeremy and another profoundly deaf student were actually two of the most focused, hardworking and dedicated students—eagerly participating during the introduction inquiry and not distracted or disruptive during the work sessions unlike some of the CODA students.

The Art Classroom can be a Safe Haven for Native Signers (especially HOH and CODAs): Responsibilities are Temporarily Shelved

In regards to the HOH and CODA students seeming more disruptive and unfocused, let's consider how they were raised straddling the worlds between hearing and Deaf culture. Ms. L notes regarding behavior, CODAs especially are known in the school for 'craving attention' from the class and more likely to invade what a hearing person would consider their personal space when communicating affection and engagement. As close eye-contact is important in understanding sign meanings, these children communicate with an unabashed, close and focused stare while talking. When a CODA uses these inherent Deaf strategies interacting with the hearing world, sometimes they can be socially misinterpreted and shunned. Thomas Bull blogs about his experiences navigating his developing identity as a CODA, "I thought I was alone in the need for eye contact. I wish someone had explained to me that part of internalized Deaf Culture when I was young. Hearing people typically avoid sustained eye contact. It is considered rude to 'stare.' Much later in life, I had an epiphany watching a lecture about Deaf personal space and this helped me process negative reactions from my past, turning them around" (Bull, T., 1998, p.17). I asked Ms. L to describe some differences CODAs display when interacting and communicating in art room, "They are really outspoken and eager to share, wanting someone to listen to them. Their artwork is not vastly different from the Deaf or HOH kids, but they are the first ones to raise their hands and talk about their work. Maybe it is harder for them to get attention at home? They are very proud and they have more responsibility than the average kid at home. School can be a place to be silly and let loose. The average hearing kid treats school as a serious place and relaxes at home." (Interview, 2018) A Deaf child may not feel the driving need to 'let loose at school' as they may not carry a responsibility to ease communication barriers their family members are experiencing. The CODA blogger Thomas Bull felt this weight of responsibility beyond his years when his maternal grandmother died unexpectedly, "I was 12 years old and helped my parents select

the casket and communicate with mortuary personnel." (Bull, T., 1998, p. 3) I saw this with two students, Lisa and Amy, who formed an unusually quick bond with me as I observed their projects, cheering and hugging me each time I returned. These girls were best friends and grew up on the same block, both with Deaf parents. Leaning in close and completely tossing her project aside, Amy volunteered very personal information right away that she was the youngest in her family, her home situation was volatile and her older brother (also a CODA) had recently moved to Florida. She was openly despondent—telling me her parents are deaf and now at age 8 she is the only hearing family member. Amy was nervous about taking care of and protecting her mom. This was reflected in her superhero character of *SAFETY GIRL*, who was there to help those in need. Both CODAs and HOH children shoulder a major responsibility when navigating the world—always translating or challenged to lip read and speak.

I saw this need for a temporary creative release from responsibility again with Jade, a HOH, 2nd grade student, who spoke to me about her love of seeing theater and ballet shows. Proudly wearing an American Ballet Company shirt, she has been many times, telling me, "...for someone that can't follow TV or hear voices clearly telling a story, its relaxing as the dancers tell a story without words. You don't have to work hard to follow what they are trying to communicate, it's just so easy and fun to understand the dancers' stories through their movement!" She showed me her comic panels that portrayed scenes on a ballet stage telling the story of a princess surrounded by animals, the drawing style reflecting light-handed swirls of grace and fluidity.

Visual Assessment Can Aid Communication and Understanding

The academic literature emphasizes the importance of the educator being constantly aware of the struggles native signers may experience trying to follow an inclusive class in a group discussion or demo. Other than Ms. L verbally recapping group realization in inquiry and walking around to individually discuss projects during work time, I did not see any quick, informal group or peer-to-peer assessment or larger critiques to provide group feedback on finished work. When asked, Ms. L did express visual assessment was a very important part of furthering communication and inspiration in between peers (and the teacher) in the art room. For the younger grades, she sets students up with partners to do quick peer assessments with the '*FEEDBACK SANDWICH*' (*see visual 2*), the steps represented on a large, colorful, hand drawn poster: 1. Compliment: what did the artist do well? 2. Question: what do you want to ask the artist? 3. Suggest: what suggestions do you have for the artists? She feels this encourages students to communicate their intentions of their work to each other and has their intent been received successfully. Her favorite group assessment is a gallery walk at the end of a project. "The students put their in-progress or finished projects out on the tables and walk around to check out everybody's artwork. You're engaging in discussion and seeing your friend's work right next to you along the way—but maybe the people at this table don't naturally communicate with the students in the back." (Interview, 2018) Ms. L has her older students write comments on post-it notes or leads open discussion with specific questions around noticing specific new themes, symbols or original storytelling elements springing up in students' work. By recognizing these things in a group, the artists can tap into each others' strengths, broadening their framework by learning from each other's experiences in the world. "By the end I hope each of them are walking back to their seats inspired to take the next steps with their project." (Interview, 2018)

I also notice a giant, gridded rubric poster with detailed written and visual descriptions aligned with points towards a grade—categorizing levels of creativity, understanding, studio habits and presentation. This visual guide clarifies and can be referenced at any time to communicate expectations in the art room in these categories. (*See Visual 3*)

The Interpreter's Varying Roles

I casually interviewed two interpreters that accompanied individual students throughout the day to every class, including the art room. I wanted to understand more about the additional roles an interpreter finds themselves navigating when becoming in part, a child's daily voice and mode of communication. What teaching elements and techniques did they feel contributed to 'successful' communication and a positive artistic learning experience for their student client during an art lesson? Both interpreters I spoke with were CODAs and integrated within the Deaf community. Interestingly both were semi-professional dancers, dimensional movement within space a part of both aspects of their careers. Jeremy's interpreter Rosa gives me a background of the school's history as her parents attended this school 30 years before. She has been in every art class with Jeremey for 3 years, commenting that in the art room it seems that Jeremy needs her much less to integrate into the group than other subjects. Rosa has a low-key demeanor and is very reserved in her signing style. When Ms. L wonders to herself what could be bothering a CODA student in a dark mood, Rosa comments quietly to me that he is having a hard time at home, she knows his family. She purposefully hangs back and only comes forward to interact with Jeremy and peers if he signals her. Rosa comments that Jeremy finds a calm satisfaction in adding intense detail to his drawings, also thriving when given specific jobs within the art room as part of the lesson cycle. She tells me that his mother works in an

art gallery but surprisingly he does not get the chance to make art frequently at home. She emphasizes that even though this school has a specialized population of Deaf and HOH students, the mix of CODAs and some hearing students have changed the schools positioning in the Deaf community to a negative feeling of 'mainstream'. I expressed surprise, as there are so many accomodations for the Deaf here, but she said the Deaf community felt that there should be no need for interpreters here—the teachers should be fluent and all children should be signing as the primary language in class, English only as a secondary communication goal.

The second interpreter, Mary, has accompanied a 3rd grade Deaf girl, Camila, since kindergarten in all classes, every day. Mary is a CODA who is very expressive in her gestures, strongly opinionated and not afraid to discipline in ASL any of the students in the class if she tunes into disruption Ms. L may not notice as a consequence of her lack of fluency. Mary seems adamant in providing not only literal interpretation and communication for Camila, but also personal encouragement, insight and an almost parental stance regarding consequences of social or academic behavior, choices and actions. Mary speaks proudly about Camila having unusual creative talent and focus in the art room, and that Camila wants to be a professional artist one day. She also has close relationships with the other students—giving them pep talks about focusing on the task at hand, pointing out to one student that not only did she have Deaf culture in her background but to also incorporate her Latino origins into her artwork—all the while curbing chatting and banter that could potentially distract Camila from her project. Mary, along with all of the other interpreters I observed, seemed to relax in the art room and actually did the art assignment alongside her student. I felt by physically participating in the

art-making, the interpreters were visually interpreting the proper way to engage in the assignment and with peers in the art classroom.

Discussion

Considering the academic literature and my personal findings in this research, I will discuss and expand on how I interpret and process these themes, issues, elements and methods—some commonplace, some surprising and remarkable—that seem to accompany and influence overarching communication and response to visual material and artmaking within a bilingual ASL and English art classroom. First and foremost, an art educator (hearing or Deaf, using ASl or English) engaged with teaching native signers a secondary form of visual expression—art—will only progress with students if they embrace and respect the Deaf community, ASL, Deaf history and culture—this knowledge providing constant inspiration and insight into any creative pursuit.

The art educator's role in boosting communication:

When considering the art educator's individual roles and responsibilities in facilitating successful communication pertaining to classroom community, comprehension of content and generally paving the way for a student's fruitful and creative exploration of their developing identity—I recognized some critical, key orbiting techniques and strategies that should be considered when introducing the creative process to native signers.

Considering the space: Recalling the academic literature stressing the importance of the physical environment a native signers needs to engage in unfettered communication, set up of the art classroom

is a key factor in a student's response to material presented. The visual nature of sign language calls for particular consideration of how the dialogue will occur between individuals with a heightened focus on factors such as face-to-face engagement, eye gaze, lighting, minimized clutter or distractions along with a general consideration of Deaf Space design. When entering this elementary art room for native signers, I felt the room was thoughtfully organized, clean, well stocked and decorated in a tasteful, minimal yet creative tone—calmer than many of the garish and overly stimulating art rooms I had visited in the past. Although the old building was built many years ago with an intended use for Deaf education, architects had not considered or planned for the full range of diverse needs and specifications needed to make a building accessible to all. I felt after observing the dynamic in this art room that one basic and easy adjustment the art educator could make—instantly improving the communication factor—would be to move the individual desks to a semi-circular, u-shaped grouping—perhaps with a circular demo table in the center towards the opening in the front of the room. Using the floor space as a work area was a quick fix, but I still witnessed students expressing frustration resulting in behavior disruptions simply caused by obscured sight-lines. The open plan of the room would aid in facilitation of the specific jobs given to students at each table—focusing on caring for the materials, assisting fellow peers and learning to set up a proper work area. These important physical exploratory activities require open and easily navigated space, encouraging the signers to work together while using multiple forms of communication methods. Other noteworthy physical communication strategies observed that related to the space where frequently flashing the lights to grab the group's attention, and surprisingly, call and response hand clapping—very similar to hearing classrooms I had experienced.

Engaging in parent involvement: Aligning with the existing literature discussed in relation to issues young native signers may have communicating what they need to flourish and take creative risks—Ms. L's student Luke showed many signs of discontent—moving under a desk to escape distraction and literally blocking visual communication with his hood. These repeated signals of distress indicated to Ms. L that there was a deeper problem at hand, Luke remaining silent and unattainable. Her method of conflict resolution—reaching out to the parent to explore family insight and dynamics behind-the-scenes—opened the doors quickly to possible adaptations that let Luke explore the assignment using a method he felt comfortable pursuing. Considering previous literature revealing the many communication struggles a young native signer may experience daily—if a student is shutting down due to a negative experience with a peer, group participation or an assignment—a teacher can ease the tension by gathering the backstory from an engaged family member and customizing an individual plan that synergizes with the child's personal framework.

Flexibility based on constant assessment: In accordance to the varying learning styles native signers respond to as recorded in past research, art educators need to be flexible with the materials they choose and the practices they exercise in a creative curriculum. Ms. L was flexible in her seating chart to solve issues with distractions. Flexibility was also employed with Luke by providing alternate tactile materials for him to engage with. She is flexible in her process of visual inquiry to ensure the group is secure when communicating with each other. As discussed in the reviewed literature, VTS strategies can be helpful to engage young viewers that have pre-existing strength thinking in and communicating with a visual language—using thoughtful prompts and narratives relevant to a students' developing framework to investigate meaning within artwork. Flexibility is needed when

adjusting the approach—adapting inquiry questions normally directed at viewers with mainstream frameworks—to focus on what a native signer would need to interpret meaning in their visual and spatial language. I observed an example of flexibility in perspective during visual inquiry when Ms. L assessed her students were initially not understanding the darkness and pain depicted in the the war themed painting Guernica. She adjusted her approach of inquiry by specifically focusing the students' close looking on the facial expressions of distraught characters in Picasso's painting—engaging their natural tendencies to interpret specific meaning in ASL based heavily on facial expressions.

In order for an art educator to engage in effective flexibility in the art classroom, I observed there needs to be constant assessment of student understanding. For the art teacher understand more about what teaching elements and techniques contribute to positive communication and understanding in a group of native signers, the students need to be assessed both casually during the lesson and more formally at the culmination of the project in methods that flow with a native signer's natural modes of expression. First, consider the particular attributes their home language has instilled in them—conveying a narrative in ASL demands attention to dimensional space including multifaceted descriptors about the environment, emotions, physical descriptions, and other sensory elements. Instead of verbally summing up a list of noticings and interpretations the group has brought to light, perhaps a better way to measure understanding would be to call on students to individually recap the narrative to the group in ASL, demonstrating what they gathered from the discussion. ASL storytelling and poetry slams are methods frequently used by Deaf performance artists to express and depict their comprehension, perspective and personal meaning of a story using their body, movement and surrounding space. The students will remember the movements of their body as they tell relay their

viewpoint in ASL. The brain will connect these movements to the information learned—helping to aid in translation of the content and ingrain the intent of the lesson in the viewer. If the art educator builds in time for short ASL story recaps performed by students after close-looking and discussion, she can gauge the levels of comprehension within the group. An explanation in their native language will also aid the students who may take a bit longer to make those connections because of gaps in learning. Other quick methods of student assessment could be sketching (instead of writing) a visual exit slip answering a question relevant to material presented. Ms. L uses art walk critiques as another way to have peers assess each other, broadening their framework by learning from each other's experiences in the world.

Effective changes to lesson plans, materials, and processes to improve communication, understanding and engagement

A child who grows up using a tactile, visual and spatial language in combination with vision, smell and touch to make sense of the world, approaches understanding and communicating through artwork differently than a person who is perceiving their environment primarily through auditory input. With some simple modifications or additions to art lesson plans, perhaps these differences can be accomodated and shine as a strength in the creative process and originality within the finished artwork.

Intro and inquiry: In order for an art educator to bring a group of native signers to a culminated understanding during discussion, it is necessary to mediate turn-taking regarding student responses–allowing time for the interpreter to get all students on the same page. This didn't seem to be a critical issue in Ms. L's classroom, possibly because the students were so familiar with each other's input and learning styles resulting from tightly-knit relationships within a small class size traveling

together throughout the years. In culmination of the group discussion or during a critique, comprehension can be accented by incorporating students describing the narrative component of the artwork in ASL, the details of the work represented in physical dimension and movement.

Demos*:* Some communication and understanding was lost in Ms. L's demonstrations of practical artmaking techniques and skills needed to complete the assignment. Considering time restraints of a 55 minute class, demos could be possibly improved by a few adjustments. Slowing down the demo to allow for interpretation between steps—allowing the signers to shift their focal point without missing important visual information. This could also provide a moment for spontaneous questions about vocabulary or concepts that might not come to light if no pause is given. Showing more hands-on details considering expansion and depth into the capabilities of the materials could lead the students to experiment more with their own ideas instead of just copying the demo work. As I walked around and looked at students using watercolors on still life drawings, I realized that the paintings all looked very similar—most students sticking to the thick primary colors because Ms. L did not demonstrate the full fluidy of the medium. She took more time instructing how to keep the colors clean and restock the shelves than demoing the risky yet beautiful factors watercolor paint can take on if the paint is manipulated with water. I showed a group of boys—who had somewhat given up and said they were 'finished'—what happens if if the paper is wet before the paint is applied and what a bit of liquid mask could accomplish. Immediately after witnessing the surprising spreading and blending of colors bouncing the edge of the thin rubber, they dove back into their work and the techniques were represented on their own paintings—each in their own original style.

The nature of the assignment: Art educators need to take advantage of young native signers' pre-existing understanding of space and dimension gained from using ASL. The physical nature of the project should be tactile and dimensional, investigating content through spatial perception—a method of understanding that is intrinsic to a native signer. Instead of drawing on flat paper, perhaps the students can create dioramas or models of a historical painting or drawing to explore deeper realms of what is happening in the narrative space. Maybe the students would respond well to figure drawing with live models that could be viewed at 360 degrees, using a native signer's enhanced ability to mentally rotate three-dimensional objects. The students responded positively to multisensory and tactile materials such as soft pastels that used their natural finger dexterity as assets connected to the medium. If the content of the artwork seems dated or unrelatable because of differing frameworks—after the teacher is confident the students understand the original intentions of the artist—perhaps the lesson could allow freedom to reinvent the characters in sculpted clay and animate them digitally to tell the modern day rendition of the story.

The students in Ms. L's classroom may have been more engaged if the projects were more open-ended, giving the students a chance to explore and make own choices. The projects that challenged students to explore their identity and voice their opinion centered around assignments that scaffolded technical skills while building up their personal confidence by validating risks taken in the process of exploration. Maybe instead of drawing the superheros on paper, a native signer would connect to making a dimensional cardboard construction or paper mache sculpture representing their enhanced self. Research previously discussed speaks to a native signer's visual senses heightening,

perhaps the assignment could exercise this asset by having students collect found objects that catch their eye to make a collaborative group superhero sculpture.

Considering social oppression, pressures and identity construction within Deaf culture:

It is important to integrate the student's connection to the Deaf community and culture into creative assignments that explore the self and family. Discussing artist's intentions, making and performing art can be safe venues for educating diverse audiences—giving a voice to individual identities and injustices within the Deaf community. Visual expression through art could help teachers and students close any gaps in communication by using imagery to bridge a mutual understanding. Deaf, HOH and CODAs deal with varying challenges concerning independence, oppression and intolerance from a young age. Art educators could guide the remarkable maturity that comes from these experiences by giving students alternative tools to communicate personal narratives. Ms. L is integrated into the Deaf community by becoming intensely involved in her students lives—passionately setting an example for how an artist can use the power of art-making to make a statement. Still, she is a *hearing, English speaking, non-fluent in ASL* role model in a classroom of native signers. I believe it is imperative to invite Deaf, HOH and CODA creative role models who communicate in ASL—into the classroom to provide accessible mentorship in the arts that is relevant to these students' lives. Deaf pride should be deeply integrated into the curriculum—one thing I thought was severely lacking at this school specializing in educating the Deaf community was the access to seeing other Deaf artists such as Christine Sun Kim, watching epic videos of ASL poetry slams along with vibrant Deaf storytellers and dancers legends. There are ASL guided tours of multiple art museums within minutes of the school. Experiencing these modes of artistic expression will ultimately mesh with these young native signers'

reality—the resulting inspiration possibly empowering marginalized students to make life altering artwork themselves. In the late 19080s, a group of Deaf artists came together at Gallaudet University and made a manifesto regarding express Deaf experience through visual art. Nicknamed De'VIA for Deaf View/Image Art encapsulates:

> De'VIA represents Deaf artists and perceptions based on their Deaf experiences. It uses formal art elements with the intention of expressing innate cultural or physical Deaf experience. These experiences may include Deaf metaphors, Deaf perspectives, and Deaf insight in relationship with the environment (both the natural world and Deaf cultural environment), spiritual and everyday life. (Deaf Art Manifesto https://bit.ly/2ByB5w8)

Personal relationships with successful Deaf artist mentors that have experienced similar setbacks could ease socialization and inclusion issues that ELLs deal with regularly. Perhaps a final critique or an art show for parents could include a ASL poetic performances that accompany the students' work in lieu of written artist statements.

Study Limitations

One limitation relates to the mention under 'Study Credibility' regarding my recurring realization of my 'Not-Deaf' identity. I originally asked a few of my deaf teachers at the Sign Language Center to connect me to other local Deaf art teachers, artists and classrooms for observations and interviews. Initially they were enthusiastic about my thesis research, cc-ing me on emails reaching out to their Deaf associates, but I mostly heard nothing back and was gently brushed off or turned down. The reason I was given indirectly by other members of the Deaf community was I would be taking the place of another potentially Deaf teacher or researcher and the opportunities to promote Deaf research were far and few between. I found that the two interpreters I spoke informally with, both CODAs themselves, agreed this was probably the case and also felt uncomfortable doing formal interviews

with me—almost as they were betraying the inner workings of a private community. Amy Williamson, a CODA interpreter, says that at the end of the day, "In my observation, many Codas possess an unequivocal understanding of privilege and power that is not easily recognized by non-Coda interpreters (including myself.) We continue to hold the secrets of our deaf parents and the secrets of the hearing community" (Williamson, A., 2012, p.3).

Implications

Though teacher, student and interpreter interviews along with classroom observations within this urban, public elementary school with a bilingual ASL and English student body, my research explored many distinctive styles of communication used to investigate, discuss, create, assess and critique during art lessons that engaged visual thinking strategies and multisensory materials tailored for native signers. Fluid, honest, open (yet moderated) dialogue and understanding between students, teachers, and other orbiting influences such as interpreters is a vital part of students having a positive experience exploring new concepts, skills, risks, identities and communication in the art room. After analyzing previous literature addressing challenges and attributes of native signers, similarities to other ELLs, adaptive tactile teaching techniques and materials, and both art and ASL serving as visual languages in themselves—there are many considerations that play into a successful art classroom community of native signers. An art educator can make adjustments to their pedagogical approach, mindset, curriculum and expectations to adapt to the needs of native signers. Some elements that need to be considered range from basic physical set up of the classroom—to flexibility of teaching strategies based constant assessment of student comprehension—to recognition and inclusion of Deaf pride,

culture and American Sign Language—along with incorporating inherent visual strengths of native signers into actual skills and techniques used in art-making.

This study helps shed light on some of the many ways that native signers respond to visual stimuli and emotional experiences in any classroom such as battling peripheral distractions, reacting to spatial and dimensional body movements and facial expressions, and dealing with heavy responsibilities in social situations or at home. I saw areas of overlap in previous documented research regarding these areas in the general classroom and my observations and interviews among Deaf, HOH and CODA students in an art investigating and making environment. Today's art educators would benefit from considering my findings and relevant situations observed and incorporating them when setting up the art room, writing flexible lesson plans that consider multisensory elements and tactile materials, giving time and space for group interpretation and discussion, while watching for possible distraction factors—the art room will become a haven for peer communication, supportive community building and expressive art-making resulting in some very original perspectives and products by native signers.

Since the implementation of the Individuals with Disabilities Education Act (IDEA), advocating hearing impaired students be placed in mainstream classrooms, art teachers in all schools need to be aware of these discussed strategies to help students achieve the base understanding they need to feel included, confident, relaxed and able to take creative risks. I think that all art educators would benefit from learning basic ASL and incorporating this visual language and its dynamic aspects into any art lesson with vocabulary, storytelling and spatial considerations. I suggest that art educators explore Deaf artists in the art room, linking them to every assignment and organizing Deaf speakers and ASL tours of museums. I would like to pursue further research of a longer duration regarding the different

visual perspectives of native signers vs. hearing students. I would continue research by giving identical art assignments to a group of native signers and compare their process and final work with a group of hearing students—analyzing visual and content similarities and differences. Other related questions to this topic that still need to be investigated are what art teaching styles mesh and synergize best with the discussed learning styles and perspectives of native signers—choice-based, discipline-based, structured, themed...or a combination of all? Could after-school art clubs, after-hours classroom art shows and family day art-making that includes parental participation improve the communication and overall engagement in the art classroom? If art can be a natural secondary mode of expression for native signers as it has similar elements to the visual language of ASL—can it be incorporated into the curriculum of other subjects that are a challenge for student understanding? Marlee Matlin, an Academy Award winning Deaf actress, stresses the vital element of communication, "When I learned to sign and speak at the same time, the whole world opened up to me. That's the beauty of encouraging kids who are deaf to use whatever it takes to communicate." (Matlin, M., 2010) Participation and engagement in all aspects of the art community gives a young native signer one more valuable tool to communicate their self-realizations and bond with worlds that may have seemed at one time, inaccessible.

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Appendices

Appendix A: Observation Guiding Questions/Protocol

1. How does the teacher introduce the lesson? What tools does she use to explain and emphasize relevant, important information? Do the students ask questions and respond to inquiry prompts? If so, in ASL or another manner?

2. What is the students' body language and facial expressions during art inquiry and while working on the art assignment? Are there any emphasized gestures or signs that are repeated?

3. Are the students distracted or engaged? Are they signing with the teacher asking questions or the interpreters? Are the students signing to each other as they work on the projects?
   Do the students work independently or in groups?

4. In what ways are the students pushed to problem solve? Think creatively? Are they using ASL in the classroom to express visual solutions or are they sketching to record ideas that may not be verbalized?

5. Are there and if so, what types of modifications and differentiations does the teacher make during the lesson to bring the 3 groups of students together, communicating as one classroom community? What types of visuals are used? Kinesthetic elements? Other elements/senses that may not be emphasized in an English speaking, hearing only classroom?

6. Are the students comfortable expressing their ideas/added comments in front of classmates? Do they take risks in communicating ideas that are new or they may be unsure of ? How do they do this?

7. How does the teacher assess the progress of the students during the class working time? What about after the class comes to an end, is there any group critique or exit slips?

8. What stands out as some things I did not expect to see? Relationships between classmates/teachers/interpreters? Teaching methods or influential props/aides?

9. What are some elements or clues that that follow my assumptions that ASL communicators are visual learners that benefit from expressing themselves in a secondary visual language such as art?

Appendix B: Individual Teacher Interview Questions

1. What is your background in teaching and how did you end up at this particular school?

2. What kind of art to you like to make in your own time? Do you practice regularly?

3. I was surprised when I started observing here how vocal/oral the kids are—it seems that signing does go on between Codas and Deaf students (and sometimes within groups of Codas) but a lot of oral communication. X's interpreter referred to him as being 'mainstreamed' even though this school has ASL in the name of the school. Why do you think the Deaf guardians/parents of these kids felt like this was the best spot for their kids?

4. ASL focuses on their body language, facial expressions, spatial planes and dimension to accurately convey a concept or narrative when communicating. When talking about beginner viewers looking at artwork for the first time, it's been said that resort so a personal framework to make sense of the visual…. their senses, memories, and personal associations using what is familiar to them regarding their perceptions of social, moral and conventional constructs. Do they seem to use alternate heightened senses to tune into your lesson? How might this come out in their artwork?

5. What are ways that you observe Deaf students as more visual, hands-on learners?

6. What are ways that you observe Coda's interacting with and viewing the world as different from hearing kids? How might this come out in their artwork?

7. When you tackle a new lesson, introduce a new artist or plan out a material demo, in what ways do you like to push the students to look closely and problem solve? Think creatively? Search for the non-obvious? Do you use any Visual Thinking (and inquiry) Strategies?

8. What types of modifications and differentiations do you make during an art lesson for these students that might increase understanding, encourage bravery, pride in their work, and classroom community? What types of visuals are used? Kinesthetic elements? Tactile materials? Other elements/senses that may not be emphasized in an English speaking, hearing only classroom?

9. How do you observe students expressing their ideas and commenting in front of peer classmates? How do you encourage students that may have lost confidence in communicating in mainstream classrooms to take risks in communicating their ideas about looking at and making art?

10. How do you assess the progress of the students during the class working time? I do notice you walk around and discuss work with students during work time—what about when a project comes to an end— is there any group crits or peer-to-peer discussions? Do you have a rubric that you express to the students at the beginning of the year?

11. Have you observed any situation with a student where an ASL communicators benefits from expressing themselves in a secondary visual language such as art? Any stories of students that have trouble with communication but suddenly open up in the art room?

Appendix C: Glossary of Terms

ASL - American Sign Language

CODA - Children of deaf adults

deaf - A person who regards their hearing loss solely in medical terms. They do not associate with other members of the Deaf community, identify themselves with hearing people. Some may also be progressively losing their hearing and not yet integrated into the Deaf culture.

Deaf (with capital D) - A person who identifies as culturally Deaf. This person has a strong Deaf identity, pride and is part of the Deaf cultural community. Associated with groups within Deaf schools and programs.

Deaf Space - An architectural concept tailored to Deaf vision in space. Buildings, hallways, and other spatial arrangements are designed to Deaf people's way of seeing and being in their environment.

Eye Gaze - serves a variety of functions in ASL such as regulating turn-taking, marking constituent boundaries, directing attention, and receiving signs within peripheral vision rather than directly looking at hands.

HOH - Hard of hearing

Individuals with Disabilities Education Act (IDEA) - A special education law providing rights and protections to children with disabilities and to their parents. Provides a free appropriate public education (FAPE) to children with disabilities. Gives parents a voice in their child's education.

Levels of Hearing Loss - Mild, Moderate, Severe, Profound

Native Signer - A hearing, Deaf, HOH or CODA exposed to ASL by family members in early infancy, and who use ASL as their primary language.

Sign Name: One aspect of Deaf culture is the use of unique, personal "name signs" as a way to identify someone without fully spelling out their name using ASL. These names often reflect the person's character and are usually devised by someone within the Deaf community.

Universal Design - the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.

VTS - Visual Thinking Strategies

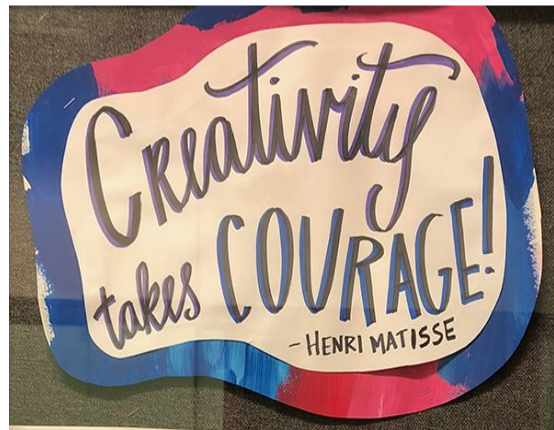
Appendix D: Images

Visual 1

Visual 2

21-25 POINTS	16-20 POINTS	11-15 POINTS	0-10 POINTS
Work exceptionally unique, detailed and interesting. Takes creative risks.	Work generally unique, detailed and interesting but can be pushed further. Takes some creative risks.	Work somewhat unique, detailed or interesting. Shows some developing ideas but without true sense of originality.	Minimal creativity shown and minimal risks taken.
Shows exceptional understanding of techniques and ideas. Completes ALL project requirements.	Shows understanding of techniques and ideas but is missing 1 or 2 project requirements.	Basic understanding of techniques, and ideas. Missing more than 2 project requirements.	Minimal understanding of techniques and ideas. Little to no attention paid to project requirements.
Exceptional effort, planning and time management. Exceptional care taken to materials and active participant in cleanup.	Work shows good effort, planning and time management. Takes good care of materials and is involved in cleanup.	Work shows basic effort and planning. Usually takes care of materials and was involved in cleanup some of the time.	Work shows minimal effort, planning and participation. Care not taken to materials and/or lack of participation in cleanup.
Artwork is completed on time with exceptional care and attention to detail and neatness.	Work is mostly complete. Work done with good care and attention to detail and neatness.	Work done with basic care and attention to detail and neatness. Work not handed in on time.	Work done with minimal care and attention to detail and neatness. Not handed in on time.

Visual 3



Visual 4