

NORTHERN ILLINOIS UNIVERSITY

The Impact of Music on Language Acquisition

A Capstone Submitted to the

University Honors Program

In Partial Fulfillment of the

Requirements of the Baccalaureate Degree

With Honors

Department Of

Curriculum and Instruction

By

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DeKalb, Illinois

May 2019

University Honors Program

Capstone Approval Page

Capstone Title (print or type)

The Impact of Music on Language Acquisition

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Department of (print or type) Curriculum and Instruction

Date of Approval (print or type) _____

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HONORS CAPSTONE ABSTRACT

More and more students in the classroom are English learners (ELs) (U.S. Department of Education, 2017). Despite the historically strong evidence that music is beneficial to the language acquisition process for ELs, there is very little music education occurring (Engh, 2013; Salcedo, 2010). The more teachers know about the benefits of implementing music in the classroom, it is hopeful that they will be more likely to include music in their curricula. The purpose of this literature review is to explore the positive impact of music on language acquisition and communicate the role that music can play in lowering the affective filter and developing intercultural competence. The researcher identifies key findings, such as how music introduces and reinforces language pronunciation and grammar, and more nuanced aspects of language acquisition (Ajibade & Ndububa, 2008; Brandt, Gebrian, & Slevc, 2012; Culp, 2017; Degé & Schwarzer, 2011; Gordon, Magne, & Large, 2011; Li & Brand, 2009; Murphey, 1989; Zhang, 2011). One limit is the lack of empirical data from a clinical study. Overall, music can have a positive impact on language acquisition as well as related aspects and child development.

Keywords: diversify, music, music education, language acquisition, affective filter, intercultural competence, pronunciation, grammar

Introduction

In Fall 2015, nearly 4.9 million ELs attended a public elementary or secondary school in the United States (U.S. Department of Education, 2017a). These students represented 9.9% of the total K-12 population during that time (U.S. Department of Education, 2017a). This is an increase from the 2008-2009 school year when nearly 4.7 million ELs (9.7%) were a part of the K-12 school population (U.S. Department of Education, 2017a). Spanish is by far the most common home language of ELs with 3.7 million of the nearly 4.9 million EL students (77.1%) in 2015 reporting that they spoke Spanish (U.S. Department of Education, 2017a). Specifically, in Illinois, in 2015 there were 194,040 students or 9.5% of the total K-12 student population in Illinois who identified as being ELs (U.S. Department of Education, 2017b). This is an increase from 2000 when only 6.2% of the K-12 population was reported as ELs (U.S. Department of Education, 2017b).

As evidenced by this data, classrooms are continuing to diversify. There are more and more students who are being identified as ELs and more specifically, students who are speaking Spanish as their native language. Despite the historically strong evidence that music is highly beneficial to the language acquisition process for ELs, there is very little music education occurring in the language classroom (Engh, 2013; Salcedo, 2010). Teachers are not using music as a resource in the classroom to help students acquire language and develop literacy skills (Leavitt, 2013; Shayakhmetova, Shayakhmetova, Ashrapova, & Zhuravleva, 2017). While most teachers claim that they use best teaching practices, many are not aware of the research-based methods that could be implemented in a classroom with ELs (Leavitt, 2013). Teachers are either unaware of the linguistic benefits of music in the classroom, are aware of its effectiveness but do not have much empirical data to support their claims, or do not know how to implement music

instruction in the classroom/curriculum when they are already focused on meeting state standardized test goals (Leavitt, 2013).

Elementary education teachers feel that due to the implementation of standardized testing, there is little to no time to include music in the curriculum (Engh, 2013). Hence, the more teachers know about the benefits of implementing music in the classroom, it is hopeful that they will be more likely to include music in their curricula. Historically, music has been used around the world and in pre-linguistic societies as one of the earliest methods of communication (Besson, Chobert, & Marie, 2011). There are not only linguistic benefits to implementing music strategies in the classroom but also cognitive connections between language acquisition and music in the brain. Additionally, there are positive social aspects and cultural considerations.

Historical Language Use

Common Origins – Language and Music

It is theorized that music and language have common origins (Besson, Chobert, & Marie, 2011; Brown, 2001; Mithen, 2005; Ruviano, 2003). As suggested by Descartes (1618), there are three basic components of music, all of which interact: the physical sound, sensory perception, and the effect of the music perception on the listener. People experience these same feelings as they interpret the physical sound of language, perceive the sensory input as they dissect the meter and rhythm of the language, and make sense of the language in the context of their lives (Descartes, 1618).

“Musilanguage”

In considering “musilanguage,” a model and theory suggesting a common ancestor for music and language, Brown (2001) says that music and language have biological similarities in addition to differences (i.e., divergences). One similarity is that both music and language have combinatorial syntax and intonational phrasing. This means that in both music and language,

discrete units (e.g., music notes – music or letters and their sounds – language) can be combined to make a unit that is meaningful (Brown, 2001). People can combine music notes to make an arrangement and letters can be combined to make words and then sentences. Intonational phrasing is the, “Modulation of the basic acoustic properties of combinatorically organized phrases for the purposes of conveying emphasis, emotional state, and emotive meaning” (Brown, 2001, p. 273). In other words, based on the intonation of music and language, the listener can determine the emphasis of specific notes and words as well as determine the emotion of the music or the speaker delivering the language. One specific divergence is that music (without words) is a communication system that specializes in the expression of emotion while language specializes in the transmission of information (Besson, Chobert, & Marie, 2011; Mithen, 2005). When language and music are combined (i.e. when there are lyrics with the music), the impact of song can more positively affect language acquisition because the positive effects from both music and language will apply.

Communicating with Music

Music can induce emotions and change behavior, which supports anthropological findings that human ancestors needed to be able to communicate through song to survive challenges (Mithen, 2005). Sound elements structure more complex combinatorial structures which are present in both music and language (Brown, 2001). For example, combinatorial structures include the ways that phonemes are put together to make words and grammar structures are combined to make sentences (i.e. syntax). There is also intonational phrasing which is “...combinatorically organized phrases for the purposes of conveying emphasis, emotional state, and effective meaning” (Brown, 2001, p. 273). As people speak, they use different intonations or rising and falling of voice to communicate different messages. Again, this phrasing is evident in language, music, and song lyrics. Some additional characteristics

exemplify the common origins of music and language – they are both holistic, manipulative, multi-modal, musical, and mimetic (Mithen, 2005). In addition to structural evidence for similar music and language origins, there are also archaeological findings that prove existence of music which date back to some of the most ancient human settlements (Mithen, 2005; Ruviano, 2003).

In Steven Mithen's book *The Singing Neanderthals: The origins of Music, Language, Mind, and Body* (2005), he explores the integral role that music has played in social life and the neurological, physiological, ethnographic, linguistic, archaeological, and ethological analyses and connections between language and music. Mithen states that musicality is integral to being human and even that the protolanguage of music and emotive expression predates language and influenced its creation (2005). Not only do animals communicate with a type of musical language (e.g., vocalizations of apes and monkeys), but humans can communicate this way as well (Mithen, 2005).

Linguistic Benefits

Musical Intelligence

There is an intimate connection between language and music in humans. It is a prelinguistic strategy for communication (Brandt, Gebrian, & Slevc, 2012; Gardner, 1993; Howle, 1989; Krashen, 1992; Loewy, 1995). In other words, music can be used to communicate prior to language use. According to Howard Gardner (1993), musical intelligence is the first intelligence to emerge. This is among other intelligences that are acquired at later stages of development, which include visual-spatial, linguistic-verbal, logical-mathematical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalistic (Gardner, 1993). Since musical intelligence develops even before linguistic-verbal intelligence, these musical skills should be capitalized on in order to facilitate the development of language and the language acquisition process. Musical knowledge is so important that, "Without the ability to hear musically, it would

be impossible to learn to speak” (Brandt, Gebrian, & Slevc, 2012, p. 1). Even before birth, fetuses in the womb are susceptible to experiences with language. Newborns are able to recognize familiar environmental sounds, melodies from the prenatal environment, and even distinguish the native language of the mother that they were exposed to while in the womb from other languages (Paratanen, Kujala, Tervaniemi, & Huotilainen, 2013). At 27 weeks, external auditory input can be recognized in the fetus’s auditory cortex (Paratanen, Kujala, Tervaniemi, & Huotilainen, 2013).

Once a baby is born, mothers use a form of song known as “motherese” when they are communicating with their newborns (Loewy, 1995). It is usually high pitched, slow, and rhythmic with more melodic tendencies than typical adult speech. People communicate through sound by song (both music and lyrics) and language (Loewy, 1995). As babies receive input from music, they also begin their speech with music (e.g., babbling). Music learning matches the time it takes to acquire a language and the effort that is required to do so (Brandt, Gebrian, & Slevc, 2012). Additionally, music therapists use music to elicit verbal responses in working with people who have speech production deficits. Nursery rhymes and lullabies are among some of babies’ first exposure to language (Howle, 1989). They will take this input and memorize the songs, thereby acquiring the language which they can then repeat back. As people parrot the language that they are hearing in songs, they are practicing with the language more (i.e. how to say it, working with phonemes and semantics) and with more interactions can acquire the language (Howle, 1989).

Music as a Language Learning Tool

Since music can be successful in nurturing language production in infants, this should be applied when working with ELs to acquire English. Some of the techniques music therapists use involve beating on a drum to develop rhythm and mirroring sounds. This can help the learner

organize and shape vowels, consonants, and blends in language and also supports phonemic awareness (Loewy, 1995). According to Stephen Krashen (1992), there is no fundamental difference between the way that people acquire a first language and a second language. Humans have an innate ability that guides the language learning process (Krashen, 1992). When people listen attentively to spoken language that is relevant and meaningful to their lives, they will acquire that language (Krashen, 1992). Music is a language learning tool for people who are acquiring their native language. They receive musical input even prior to birth. This strategy should be capitalized on as a resource for second language acquisition as well.

Music introduces and reinforces language pronunciation and grammar, as well as more nuanced aspects of language acquisition (Ajibade & Ndububa, 2008; Brandt, Gebrian, & Slevc, 2012; Culp, 2017; Degé & Schwarzer, 2011; Engh, 2013; Gordon, Magne, & Large, 2011; Li & Brand, 2009; Loewy, 1995; Milovanov & Tervaniemi, 2011; Murphey, 1989; Zhang, 2011). These skills include phoneme discrimination, stress patterns, prosody, segmentation of syllables, phonics, rhyming, blending, intonation patterns, and vocabulary acquisition. Songs can be used as resources for teaching and reinforcing sentence patterns, vocabulary, pronunciation, rhythm, adjectives, adverbs, and more (Ajibade & Ndububa, 2008; Besson & Chobert, 2011; Li & Brand, 2009; Milovanov & Tervaniemi, 2011). People who listen to music can learn aspects of language such as: prosody, rhythmic characteristics, melody, and pitch. As students listen to the lyrics of the song and interpret the music underlying the words, songs are a source of instructional gold. In a study conducted with Chinese ESL graduate students, the students in a group who listened to music that supplemented English instruction earned the highest English test scores (Li & Brand, 2009). The researchers concluded that there is a relative effectiveness of song use (lyrics and music) on vocabulary acquisition, language usage, and meaning (Li & Brand, 2009).

As students acquire language skills, they will need to practice rhyming, segmenting, and blending in order to use the language to construct sentences and participate in discourse. Music can be used to provide exercises with direct instruction in rhythm and analysis of song lyrics to promote training in these abilities (Degé & Schwarzer, 2011). More specifically, jazz chants are a recommended tool for language acquisition because they are a natural, rhythmic expression of language that incorporates rhythms, stress, and intonation patterns that are a replica of native English speaker language (Zhang, 2011). As students are chanting the language with a beat, which is less complex than a song with different rhythms and melodies, they have multiple opportunities to interact with the language. The teacher first previews the chant and explains the cultural context, the students listen to the chant, the teacher and students choral chant, and then students participate in group and individual chanting as necessary (Zhang, 2011).

Another critical skill of language development is stress patterns and prosody. Prosody is intonation, tone, stress, and rhythm in a language (Gordon, Magne, & Large, 2011). In order for people to develop fluency with language, they must practice prosody. ELs can learn about stress patterns and prosody from music in English which will increase their English language skills. Well-aligned songs focus listener attention and then students are better attuned to segmentation of syllables (good for phonics skill development and speaking/reading fluency) and comprehension of songs (Gordon, Magne, & Large, 2011). Two suggestions for using songs in the classroom to develop the aforementioned language skills are studying the grammar of song lyrics and practicing selective-targeted auditory comprehension (Murphey, 1989) Another recommendation is writing dialogues using a song's words, which encourages application of language (Murphey, 1989).

Applications of Language Supported by Music

Once students have acquired the basics of a language, music can continue to support literacy development, reading, listening skills, writing, and speaking, all of which are applications of language (Culp, 2017; Engh, 2013; Jalongo & Ribblett, 1997; Murphey, 1989; Paquette & Rieg, 2008). Students who learn through music are also more likely to be engaged in reading (Culp, 2017; Jalongo & Ribblett, 1997). From music, students become familiar with the language and have opportunities for enjoyment in both production and expression of language and feelings. Moreover, students are exposed to repetition, an expanding vocabulary, story structures (e.g., as they consider a song that is a story with music and what the songwriter is attempting to communicate), critical thinking opportunities, and chances to foster creative expression (Jalongo & Ribblett, 1997). As students advance from listening to music to producing their own music, they can improve writing skills as they create new lyrics and tell their own story through song (Paquette & Rieg, 2008). Students also make literature connections and learn content as songs teach and reinforce new and previously learned information.

Students are introduced to academic language as they learn specific content through song lyrics as well as native speaker discourse and colloquial language (Engh, 2013; Murphey, 1992). Some of the key features of music make it a great tool for language learning. Pop music includes conversation-like languages that occur at half the speed of spoken discourse (Murphey, 1992). As a result, people who are acquiring the language of the song are receiving less input in the same amount of time as if they might be having a conversation with someone or listening to a dialogue (Murphey, 1992). This can make it easier to understand and digest the incoming information because there is not as much to comprehend. Additionally, language in pop songs (in English) is commonly associated with the level of eleven-year-old native English speakers (Murphey, 1992). Therefore, people can learn natural, everyday discourse and vocabulary by

listening to popular songs. Additional academic language can be introduced in songs that the teacher selects or creates to teach content in the classroom. Some examples include the quadratic formula song in mathematics to help students remember this specific formula as well as the “Fifty Nifty United States” song in social studies to help students recall all of the states.

Cognitive Connections

Similar Processing – Language and Music

As supported by neuroimaging, music is processed in language areas of the brain (Brandt, Gebrian, & Slevc, 2012; Lake, 2003; Milovanov & Tervaniemi, 2011; Murphey, 1989; Patel, 2003; Reifinger, 2018). According to Reifinger (2018), “Theorists have suggested that music and language may share some cognitive mechanisms because the two domains seem to employ similar executional demands, such as the perception and interpretation of acoustic sequences and the interpretation of a system for mapping mental images to sounds” (p .72). Both music and language have, “...perceptually discrete elements organized into hierarchically structured sequences” (Patel, 2003, p. 674). In other words, music and language have smaller units of information that can be combined to communicate a more extensive message. For example, individual music notes can be combined to create an arrangement for a song and letters and their accompanying sounds can be combined to make words, sentences, and longer messages. As people perceive these messages, they must perceive the sound, interpret what it means, and connect it with what they already know.

Dependency Locality Theory

Songs are linguistically processed in a similar manner as in conversational discourse (Murphey, 1989). When considering syntactic processing in language (Dependency Locality Theory, or DLT), linguistic sentence comprehension demands neural resources (Patel, 2003). This means that when people are perceiving language, they are using their brain power to

perceive the physical sound, interpret the incoming message, and relate it to what they know. A message can be broken down into many components, such as the individual sounds of letters, the meaning of different words, the syntax of the sentence, and the meaning of the whole message. One neural resource is structural storage and another is structural integration. When people use structural storage, they are keeping information in their brains. As they experience language, they remember different syntactic categories of the components of language and store them for use at a later time. Structural integration involves using what you know to connect it with incoming information (Patel, 2003). As a person hears language, he/she connects it with prior words that they have heard before to make sense of the sentence. The location of words (i.e. the “locality”) can determine their meaning (Patel, 2003). According to DLT, language follows a pattern and people can predict what is supposed to come next.

Tonal Pitch Space Theory

Similar to language processing, in music, there is an overlap in the neural areas and different operations which provide the resources the brain needs for syntactic storage and integration (Patel, 2003). This is known as syntactic processing in music, or the Tonal Pitch Space Theory. When people hear music notes, they can use what they know (information in their structural storage) to predict what is supposed to come next (structural integration) (Patel, 2003). Patel states, “...musicians and non-musicians alike acquire highly structured mental representations of music pitch via exposure to tonal music,” which supports the aforementioned claim (Patel, 2003, p. 678). Additionally, musical training can increase plasticity in the brain, which allows it to adapt and have a greater ability to process language (Brandt, Gebrian, & Slevc, 2012). Infants use rhythm, timbral contrast, and melodic contour, all of which are musical aspects of language, to scaffold the semantic and syntactic aspects of language that they learn later (Brandt, Gebrian, & Slevc, 2012; Lake, 2003).

Recall

Language in the form of a song is better committed to memory which can increase the likelihood of recall, that is, a memory aid (Besson & Chobert, 2011; Fonseca Mora, 2000; Murphey, 1992). The same brain regions are activated during verbal and musical short-term memory tasks (Besson & Chobert, 2011). People who are more exposed to music can hold more information for longer periods of time in auditory memory. They have trained this memory to focus on songs (Besson & Chobert, 2011). For example, most songs are typically around three and a half minutes. The average music listener is training his/her brain to focus for this specific amount of time on the message that the song is communicating. Additionally, people who are musicians are training their brains to focus for the length of time that they are playing. The brain is like a muscle: it must be trained and used regularly in order to perform at its greatest capacity.

Students are better able to recall text when they have music to supplement the instruction (Salcedo, 2010). Melodic text is the easiest to remember. Spoken text, which is often repeated and simple, is the least frequently recalled (Salcedo, 2010). Students store the lexical patterns of songs in their long-term musical memory (Fonseca Mora, 2000). As a result, students remember what a song is communicating and recall the information later (Fonseca Mora, 2000).

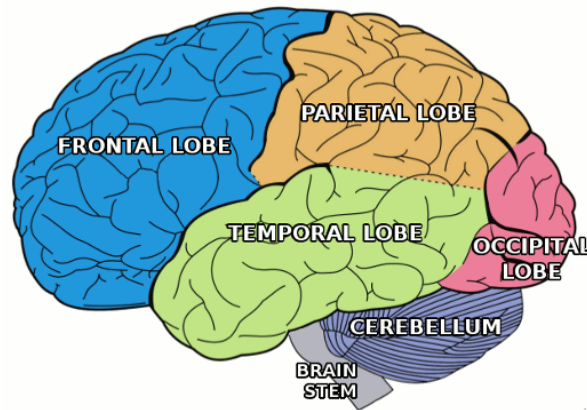
Additionally, students will be able to recall the language that was used in the lyrics of a song and remember linguistic structures. They have the information to remember in the form of a song.

Not only are students remembering the specific language structures that are used in the song and how to produce them, but also the content and information in the song lyrics.

Temporal Region of the Brain

Auditory processing is engaged with both language and music and as this incoming information is interpreted, people are processing it similarly (Degé & Schwarzer, 2011; Gordon, Magne, & Large, 2011; Lake, 2003). While it is known that in the brain, music and language

have similar processing despite lateralization that is developed over time (e.g., language in the left hemisphere, music in the right hemisphere), auditory processing is imperative in both language and music (Brandt, Gebrian, & Slevc, 2012). Musical training develops a greater processing ability in the temporal region of the brain where auditory information is managed (Milovanov & Tervaniemi, 2011).



(Anatomy Info, 2018)

This is important in processing language, and most notably with phonological segmentation. When linguistic stress and musical meter (e.g., beats) are aligned in music, beat tracking and comprehension of lyrics is enhanced and there is increased neural activity with strong syllables in songs (Gordon, Magne, & Large, 2011). Songs that have alignment between beats and strong syllables can aid in language learning because specific sounds are emphasized (Gordon, Magne, & Large, 2011). For example, in the song “Everybody Dance Now!” which was originally sung by C+C Music Factory but has now been adapted for the elementary classroom, children can learn short e, b, d, and n sounds as they listen to the hard beats at the beginning of the syllables in the words *everybody dance now* (Daninhampshire, 2007). Another song is “I Like to Move It” as featured in the popular children’s movie *Madagascar*. As students listen to this song, they can learn long i, l, t, m, and short i as these are the sounds that are emphasized with the beat of the song (Maximumpmk, 2009).

Affective Filter

The affective filter can be lowered by music which increases the likelihood of output and permits greater consumption of input (Ajibade & Ndububa, 2008; Claerr & Gargan, 1984; Coe, 1972; Fonseca Mora, 2000; Krashen, 1992; Lake, 2003; McMillan & Chavis, 1986; Merriam, 1964; Murphey, 1989; Murphey, 1992; Paquette & Rieg, 2008; Wilcox, 1995). According to Krashen (1992), the best learning happens when students experience low anxiety, high self-confidence, and high motivation. When these conditions are not being met, people employ an “affective filter” which acts as a barrier to incoming and outgoing language and inhibits language learning, processing, and production (Oxford, 2000; Krashen, 1992). The teacher must strive to create conditions that support a low affective filter. Music can meet this need as it makes students feel more relaxed and receptive to learning language (McMillan & Chavis, 1986; Paquette & Rieg, 2008). If students are more relaxed, then their affective filters are lower which supports language acquisition and speech production. Additionally, music can lower levels of stress and anxiety in students. This, in turn, lowers the affective filter (Claerr & Gargan, 1984; Coe, 1972; Merriam, 1964; Wilcox, 1995).

Students’ confidence level in their language abilities often lead to higher levels of motivation to participate in using language in and out of the classroom (Ajibade & Ndububa, 2008; Oxford, 2000). Songs can be used as a motivating factor in the classroom in order to encourage communication. If children are not motivated to communicate then they will not be actively involved or have a positive attitude toward learning (Ajibade & Ndububa, 2008, Oxford, 2000). They will have a high affective filter which inhibits and negatively impacts language acquisition. Songs can motivate students in areas of listening, speaking, reading, and writing (Ajibade & Ndububa, 2008). While music can encourage discussion of the topic of the song and practice with the language being used, it can also create a sense of calm in the classroom.

Students are encouraged to be quiet when the music is playing because they need to focus on the incoming auditory information (Fonseca Mora, 2000). As a result, the environment is relaxing. A classroom that is calm will help to lower students' affective filters and promote language acquisition.

Classroom Environment

The type of environment in the classroom is dependent on the teacher's ability to manage procedures and student behavior as well as create an initial sense of community. Many ELs come to school feeling uncertain and timid because they are unfamiliar with English. However, song can help the acculturation process with emotional music and lyrics (Lake, 2003). Additionally, in the monitor model, as people hear language, they must acquire it (i.e. take it in) and then make sense of it (Krashen, 1992). When emotion and language are combined in a song, as well as are coupled with visual images, music can be a powerful language learning tool (Krashen, 1992). When students connect with a song, they are more likely to be highly motivated to continue learning and will be more invested in the learning process. As a result, they will have a lower affective filter. This teaching style provides opportunities for students to take in the information and then make sense of it in a few different ways: reading it, listening to it, focusing on the music, focusing on the lyrics, and interpreting it visually.

Social Aspects

Acculturation

Music can bring students together by building trust and cooperation and fostering social bonding (McMillan & Chavis, 1986; Paquette & Rieg, 2008; Ruviano, 2003). Music not only enhances harmony among those listening and engaging with the music but also can provide a safe space to experience learning collectively and an opportunity to build community (Paquette & Rieg, 2008). These social benefits support attaining teaching and learning goals because a

cooperative and collaborative classroom requires harmony. As students are engaged in singing, there is group participation which supports building trust and cooperation among students (McMillan & Chavis, 1986). Some students, specifically students who are ELs, approach the school environment with a feeling of anomie, which is social uncertainty, and is also akin to homelessness (Lake, 2003). Students may feel like they are completely separated from their home cultures; however, music can help with acculturation. In the words of a student in Lake's (2003) study, she recounts that music improves the solidarity feeling of the class. As music is integrated, students feel that socially, there is more unity and mutual support within a group.

One specific example of music being a catalyst for the acculturation process is implementing Woody Guthrie's (1944) song, "This Land is Your Land." As students read the lyrics and listen to the music in the song, it is the hope that they will feel accepted in their new environment. Socially, students will feel that they are a part of a common culture:

"This land is your land

This land is my land

From California, to the New York Island

From the Redwood Forest, to the Gulf Stream water,

This land was made for you and me"

Not only can students build social community as they identify with a common culture, but they can also learn content about culture from music.

Cultural Considerations

Multiculturalism and Intercultural Competence

One tool that can be used to cultivate multiculturalism and intercultural competence is music (Ajibade & Ndububa, 2008; Brand, 2007; Howard, 2018; Shayakhmetova, Shayakhmetova, Ashrapova, & Zhuravleva, 2017; Zhang, 2011). As students listen to the lyrics

of songs, they learn about new cultures from music (Brand, 2007). Songs that are culturally relevant are a method for introducing cultural themes and are an opportunity to be exposed to an “authentic text” (Ajibade & Ndububa, 2008). Lyrics can be considered an “authentic text” because the language that the people are using in the song may be unique and specific to a particular culture (Ajibade & Ndububa, 2008). Students learn about culture specific language and vocabulary from these different “authentic texts.” Additionally, they will be exposed to different cultural values based on the information that is being presented in the music (Brand, 2007). For example, in a study during which students listened to music about British culture in order to develop intercultural competence, 17% of students in the experiment group increased their intercultural competence from an initial pre-test to a post-test (Shayakhmetova, Shayakhmetova, Ashrapova, & Zhuravleva, 2017). This is in stark contrast to the 3% of students in the control group who were able to increase their intercultural competence without music between a pre- and post-test (Shayakhmetova, Shayakhmetova, Ashrapova, & Zhuravleva, 2017). Students can also develop an emotional connection to what they are learning about as they become more invested in the culture.

Empathy

Music often creates powerful empathetic emotions in students while they are learning about another culture (Howard, 2018). This can be beneficial for ELs learning about the culture into which they are acculturating or for native speakers in the classroom to understand the culture from which ELs might have come. Music is also an avenue for children to increase their ability to engage in taking another person’s perspective (i.e. experiencing heightening social inferences); work through difficult feelings; and understand, appreciate, and accept the differences between diverse cultures that exist (Howard, 2018). Students might experience group guilt as they learn about racism in music and recognize the power that some groups of people

have over those who are disadvantaged (Howard, 2018). The more exposure that children have to music that is diverse and offers different perspectives, the more empathetic and culturally aware they can be (Howard, 2018). Music is a conversation starter as students consider blatant discriminatory practices and stereotyping cultures (Howard, 2018).

Content and Language Integrated Learning (CLIL)

CLIL is when teachers introduce a cultural context for the information being studied in the classroom. This improves specific language competence and prepares students for the future by cultivating multilingual interests and attitudes (Zhang, 2011). This can be done through listening to the musical notes of a song and how it differs across cultures (e.g., what instruments are used, how are the beats and rhythms different) as well as the colloquial language that is used and the information that is being communicated. As students listen to music they can develop multicultural competence, which is the "...desire or motivation to understand, appreciate, and accept the differences between diverse cultures" (Dziedziewicz, Gajda, & Karwowski, 2014, p. 33). This can be manifested in a variety of ways such as judgmental awareness (e.g., personal and in other people), distinctive traits across cultures, curiosity and motivation to learn, as well as a respect for others (Howard, 2018).

Historical Evidence in Music

One example of an artifact that can act as a window into the past to help students understand specific cultural contexts is music (Engh, 2013). Music, like writing, is a way for people to communicate. It should be viewed as a piece of history and a social narrative of what is/was happening in the world at a specific time. The artist is communicating a specific message in music: "Music, while universal, is culturally specific in that the musical context and style mirror a particular culture, acting as a cultural artifact that may both reflect and influence that culture" (Engh, 2013, p. 115). There is an opportunity for students to connect their own cultures

to music, which will make them more invested in learning (Cortés Santiago, 2012; Goldenberg, 2008). In thinking about music as a text for students, the concepts must be relatable so that students not only apply background knowledge and learn new content, but also have a relationship with the information they are learning (Goldenberg, 2008). While music can be a great tool to teach students about new culture, finding songs which students relate to is a powerful teaching tool (Cortés Santiago, 2012; Goldenberg, 2008).

Conclusion

There are many aspects of language acquisition that must be considered when determining best practices for students. For example, these include linguistic features, brain activity (i.e. cognitive connections), social aspects, and cultural considerations. Songs, both musical notes and lyrics, positively influence each of these areas. Thus, as students build language skills using music, they apply them in reading, writing, and listening (i.e. areas of language arts). Furthermore, historical evidence sheds lights on the connections between music and language that predates linguistic societies of human ancestors. Additionally, songs with music and lyrics join the purposes of language and music to communicate information and emotion. Another critical benefit that music has is lowering a student's affective filter. In other words, music creates a low-stress environment which in turn increases motivation, linguistic risk-taking, and as a result, language acquisition. This information is imperative as the population of elementary classrooms continues to diversify and the number of ELs continues to grow. Teachers should consider implementing music in their classrooms. This fosters not only language acquisition for all students, but also intercultural competence and social bonding.

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