CHAPTER II
REVIEW OF THE LITERATURE

Music in the classroom was supported by ideas found in several areas of research: brain-based learning, multiple intelligences, social and emotional learning, and Mozart Effect. All these areas promoted the importance of music in the classroom.

Brain-Based Learning

Brain-based learning was a recently developed concept in education. McGreehan (2001) summarized the findings of brain research and how it can be utilized in the educational settings. Knowing how the brain works can empower educators in designing effective lessons and also improve students’ success in attaining the content. Emotion plays a role in how students learn. When individuals feel threatened the body reacts accordingly. Learning is denied in the brain because individuals are busy reacting to the threat and negative situation. When the brain is at ease, no threats, the brain can acquire knowledge through experience (McGreehan, 2001).

An increase in positive stimulation creates not only more neurons in the brain, but the ability to understand more. Jensen (1998) asks individuals to challenge themselves so that they can be stimulated. Music is a means for the brain to be enriched. It serves as a positive stimulant because individuals react to the music. Music also primes the brain because it helps maintain the communication of its neurons, enhances creativity, and provides a positive attitude (Jensen, 1998, p.38).

Multiple Intelligences

Gardner’s theory of multiple intelligences suggests that individuals have different types of intelligences. Schools should not only focus on the linguistic and logical intelligence. Curriculum needs to be diverse so that every students’ strength can be met and challenged (Gardner, 1993). One of the key ideas of multiple intelligences is that educators need to be aware
of not just two but also all of the different types of intelligences, so that more students can be successful in the classroom (Kassell, 1998).

Glendale Community College has an initiative called “The Multiple Intelligence/Learning for Understanding (MI/LfU) in which students are given the opportunity to be creative and are provided imaginative learning options (Diaz-Lefebvre, 2004, p.49). Students were able to facilitate their own leaning and gain ownership of their knowledge. The content became personal and relevant rather than just memorization and regurgitation. The brain can focus more on the experience when it is meaningful and relevant (McGreehan, 2001).

Jensen (1995) claims that 40% of our students are auditory learners. Music in the classroom affected students’ mood and behavior, which allows them to feel safe in their environment. “Music … has a positive, measurable, and lasting academic and social benefits” (Jensen, 1998, p.36). Jensen (1998) stated that the emotions music evokes help drive attention and create meaning (72). The use of music can teach students how to response to musical sound and to effectively use it in their life (Brewer, 1995)

Understanding how to use music effectively in the classroom can help more students be successful. Having a nurturing place for student learning can improve the school’s and students’ performance for the high-stakes testing. Music can be used as a tool for success, not necessarily a tool for increasing IQ scores. It brings appreciation to an art and incorporates an effective use of music in everyday life (Jensen, 1998).

Social and Emotional Learning

A safe environment helps students to be ready to learn. The environment is not limited to the physical arrangement of the room, but also on the children’s well being. Teachers need to be aware of their students and their daily moods. Adolescents are usually more focused on their
personal lives rather than their classes. When teachers are aware of their students’ well being, it can be used as a classroom tool. When schools systemically pay attention to the social and emotional learning aspect of their students, there is an observed increase in academic achievement, a decrease in problem behaviors, and the quality of relationships that surrounds each student improves (Elias et al, 1997, p.1). Students become more involved with their learning. School becomes a personal experience where they can construct their own style of learning (Elias et al, 1997, p.19).

The emotional well-being of students can be integrated with the use of music. Humans have a physical response to music (Chalmers, Olson, & Zurkowski, 1999), stimulating our brain, setting the mood and evoking emotion. Schools can induce a learning environment by providing certain types of music to provoke a certain kind of emotion. Chalmers et al. (1999) studied the Lozanov method of suggestology and found that “background music with softly spoken information … create[s] a relaxed yet concentrated state of mind conducive to absorbing information at a higher than average rate” (n.p.). It has been observed that playing music at 60 beats per minute provided a state of relaxation and more focus and attention. Music affects our whole body, from our heart rate, to posture, to mental images, and to emotion (Jensen, 1995, p.221). Types of music can set the a tone, and “significantly affect the state of the learning… [then] of course, can affect the learning” (Jensen, 1998, p.37). Music helps with focus and attention (Jones, 2005).

Mozart Effect

The Mozart Effect, as cited in the 1993 study by Rauscher, Shaw, and Ky, “indicates that spatial-temporal abilities are enhanced after listening to music composed by Mozart” (Nantais & Schellenberg, 1999, p.370). The conclusion was reached based on an experiment, where a group
of college students listened to Mozart’s work and before completing a spatial-reasoning task. These tasks were paper folding and cutting task and memory items. Students in the group with Mozart’s music did much better than students with no music (Rauscher, Shaw, Levine, & Ky, 1994). As these findings were shared in the media, facts were distorted and misconceptions were made. The results were interpreted as if people listened to Mozart, they would be smarter (Cassity, Henley, & Markley, 2007; & Ivanov, 2003).

The major complaints of the study were that it was done in the laboratory in a controlled environment and the specificity of using Mozart music (Ivanov, 2003). Researchers want to replicate it and see it done in more realistic situations. The study was replicated with different types of stimuli, such as Schubert’s work a positive and stimulus work, a narrative story by Stephen King (Nantais & Schellenberg, 1993), and “adagio by Albinoni, expected to induce low arousal and sad mood” (Thompson, Schellenberg, & Husain, 2001, p.248). Both of these studies showed were that significant improvements in scores were found in groups that received a positive stimulus, regardless of type, in comparison to groups who remained in a silent environment. The group that received a negative stimulus, the Albinoni piece, had lower scores in comparison to the silent group. Both studies concluded that preferences to the stimulus changed arousal and mood, which in turn influenced how a subject would perform in a specific task (Nantais & Schellenberg, 1993; Thompson et al., 2001). Arousal is defined “[how] music either increases or decreases the attentional neurotransmitters” (Jensen, 1998, p. 37).

As cited in many other works, changing the mood of the subject can significantly affect the cognitive performance. This effect was further studied with a video game. Subjects were observed as they played the game with the original soundtrack and changed to a Mozart piece. It
was observed that subjects performed better when it was music they preferred listening to. Once again, performance was based on the arousal and mood of the subject (Cassity et al., 2007).

**Music in the Classroom**

Students’ ability to stay focus and learn the content is affected by many outside and environmental factors. Background music is a factor that teachers can easily manipulate and “hold potential for having an impact on student achievement” (Smith, & Davidson, 1991, p. 1). The misconception is that music makes an individual smarter (Cassity, Henley, & Markley, 2007; & Ivanov, 2003). What music can do is help with how one learns an idea (Demorest & Morrison, 2000). Music enhances learning because it “stimulates cognitive functioning” (Press, 2006). Music “activates students mentally, physically, and emotionally and create learning states which enhance understanding of learning material” (Brewer, 1995, n.p.). Music enriches the brain and makes learning more meaningful for the student. The student is stimulated and is able to focus more on a particular task (Brewer, 1995).

A study done by Hall in 1952 used background music in the classroom. It significantly improved reading comprehension for fifty-eight percent of the 245 students taking a reading test. The test concluded that the music helped with concentration (Hallam & Price, 1998). They also examined previous research done by Savan in 1996 where students were observed to be more calm and cooperative when music was used in the classroom. Hallam and Price (1998) pursued the same context and studied their students. Davidson and Powell (1986) observed that the use of easy-listening background music “was effective in increasing on-task-performance of children in an elementary science classroom” (p.32). As background or mood music can help aid some students, it may serve as a distraction for others (Press, 2006).
Music is not just a means to help with students focus, but it also has been studied to
develop the mind (Jones, 2005).