Rebecca Ridley

Psychology coursework introduction

No matter where we are, or what we are doing, music is usually all around us, in shops, clubs, and pubs, and on the streets. Although music is studied as a subject in schools, it is also used in other lessons to increase the concentration and learning of pupils. Jane Polack(1997), investigated this idea and concluded that particular types of music in classrooms aided and improved recall, concentration, creative thinking, memories, imagination and language.

The type of music played may affect recall and intended task performance. For example the solemn music played in churches is said to induce the mood of worship and Folk music played in the early 19th century was also said to lighten up the mood of labourers enabling them to work longer hours and in turn earn more money. (The Waverley book of knowledge).Spiritualists have also suggested that music affects ones mood and that if you want a fast heart beat and an adrenaline rush then fast paced music is best whereas if you want to relax then slow paced music is best. Spiritualists also believe that in the near future it will become possible to stimulate various glands, such as the pituitary with sounds and different types of music. This would act as a method for relaxation and the increasing of spatial pathways that help an individual remember more. Their theories remain yet to be proved however.

A more scientific approach for the effect of music for the effect of music or noise on the mind was investigated by Glass et el (1969).Glass found that when participants were given cognitive puzzles to complete, with noisy tapes being played in the background, task performance levels dropped. When the tapes were louder or more intermittent the participants made even more errors, and by using the galvanic skin response as a stress measure, it was found that their stress levels became higher when the participants lacked the control of the tapes being on or off. However some participants did manage to adapt to the noise after time, showing that individual differences may have a part to play when noise or music is involved with task performance.

In a recent UK Government research program children with emotional and behavioural difficulties were studied, to see if classical music actually improved concentration in the classroom. The children were taught in lessons with the background music of Mozart. Results showed that blood and pulse rate significantly decreased. This was thought to be because the brain had an increase in endorphin production, thus leading to a decrease in adrenaline, enabling the children to relax and learn more effectively.

Music and memory has been shown to have strong links according to the University or Georgia's research group (September 1998), this particular research group have suggested that hearing music or being sung to as a baby can be very beneficial and that babies bought up hearing music are more likely to build more brain connections and have better spatial pathways, enabling them to learn more effectively. When a baby or a young child listens to music, especially classical music, supposed spatial path ways are turned on and ready to be used to remember and learn more as the infant grows. Also the use of classical music, such as Mozart and Bach is said to be more complex and interesting, and babies as young as three months can recognize rhythms that they heard from the womb. The Georgia research group also found that

young children who play musical instruments have improved cognitive task performance of up to 30% and a better memory.

It has also be come apparent that memory recall be dependent on the environment where it was learnt, this is known as state dependent learning. Godden and Baddley's 1975 study investigated deep sea divers who were presented lists of words on the beach and 15 feet below under water. Recall was then tested in the same and opposite environment. The results significantly showed that recall was better in which the words were learnt.

Also studying Mozart's effects on the mind was the centre of Neurobiology of learning and memory at the University of Californina at Irvine. Psychologists Franses H and Gordon L conducted experiments using music and studied its effects on intelligence on the mind. One experiment in which involved thirty six college students studied the effects of a relaxation tape, Mozart and no music on the mind. The students listened to one of three conditions before completing an IQ test 15 minuets later. It was found that the relaxation tape and no music had equivalent scores and that Mozart averaged out to have 8-9 points higher than the other two conditions. The reason for this was that supposed that more spatial reasoning pathways are opened when listing to Mozart, and these are help memory.

Following on, Kirkweg(1996)investigated the effect of music on memory recall. This was done by randomly assigning participants to one of three conditions. The conditions were based on the independent variable of background sound, white noise, heavy metal music by Metallica and classical music by Haydn. The participants were then shown a picture using a projector and asked to study it for thirty seconds. The picture was then taken away. Participants were then asked to complete a questionnaire which tested the short term memory recollections of the picture. Kirkweg's results showed that the white noise had the least errors and that Haydns music produced the most false memories. The heavy metal music by Metallica had no significant effect.(http://clearinghouse.mwse.edu/manuscripts/230)

As shown by many studies, music aids the storage and recall of information. Based on current information, the following experiment will examine how music affects the recall of sixth form students. Three conditions will be used, in which either Mozart, heavy metal music or no music will be played. Memory recall will be tested using lists of 20 words all with no emotional meaning. Results will drawn up, and the more words recalled correctly will analysed against the condition they were leant in. A suggested hypothesis is that recall of words will be better with the background music of Mozart, and not so good with heavy metal music. The null hypothesis is that the Mozart, heavy metal, and no music will have no significant differences.