

**DEAFNESS...NO BARRIER TO MUSIC?
A LITERATURE INVESTIGATION ON THE CHALLENGES DEAF
MUSICIANS ARE FACED WITH IN SOCIETY.**

BY

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With special thanks to my family for their support and the inspiration from deaf musicians which has enabled me to write a challenging dissertation.

Abstract

This dissertation overall will examine two different questions throughout, in brief:

1. asking if deafness acts as a barrier to the accessibility of music
2. the role of music in education and how this can be developed in order to provide successful musical learning for the deaf with additional investigation into different perspectives of the concept of deaf musicians.

Both of these questions allow me to investigate just how deaf people can access music and develop these musical skills further. I want to illustrate how the image of deaf musicians is a definite concept yet often a rarity; due to historical, social and disability discrimination, thus sadly preventing deaf people from accessing the magic of music. I expect my answers to show that with the right kind of attitude, education and support, deaf people can become amazing musicians, on the same level, if not above, of their hearing peers.

Note: The terms 'deaf' and 'hearing impaired' refer to all degrees of hearing loss

Preface

As a professional deaf musician, when I entered university to study three years of music, fulfilling a lifetime's passion, it struck me that I was the only deaf person in my year doing music. This aroused my curiosity to wonder about the lack of deaf musicians; Are deaf people afraid of music? Were they denied to learn music? Did it just not interest them due to their profound/severe hearing losses? This is how I decided for my dissertation, I wanted to investigate accessibility to music for the deaf, looking at approaches to education, communication and development skills as well as different attitudes towards deaf people and investigation of society's ability to take in the concept of "deaf musicians," and to analyse any underlying stereotypical beliefs and mental attitudes surrounding this concept.

This topic is obviously quite personal to me, being a deaf musician, so I have such a fierce determination to fulfil my aim of creating recognition and understanding for the deaf, as well as encouraging society into accepting and respecting the concept of deaf musicians. With this project, I hope with the knowledge I gather throughout, I am able to inspire and educate people from all levels of society on the importance of allowing equal access to music - hearing or deaf.

Introduction

Accessibility to music can be provided through the use of therapy, speech work, educational access, performance training and so on. There are two contrasting arguments I can present to you; one believes that music is accessible enough to the deaf, focusing only on the enjoyment of music rather than offering an academic education and developed understanding of music for deaf people; therefore the deaf are limited in developing their potential and skills to be musicians. The contrasting argument, however, believes that music should be stretched to its limit to provide the deaf an opportunity to succeed and be recognised within society, which is supported by the rise of more deaf musicians. These two arguments show how society deals with the concept of "deaf musicians" and I will show the range of statements, views, and opportunities that society gives/denies deaf musicians and how this affects their intimate bond with music itself.

History plays a vital role in the different points of views expressed; for example many historians may have neglected disability understanding because they see the disabled as medically weak thus summing them up entirely from a medical perspective, with no encouragement to be able to do something to challenge their hearing ability - such as learning the concept of music. This outlook has dominated and affected modern policymaking, professional practice, and societal arrangements regarding people with disabilities and this all links to the concept of music. However, in contradiction, for performing artists, disabilities that are generally stigmatized may paradoxically be seen as desirable, or sometime in an ambiguous point of view marketable, due to the actual gifts they can offer their department, depending on which department it is, i.e. deaf people

offer music the importance of rhythm. For artists of all kinds, a stigmatic trait may come to be seen as a mark of exceptional gifts and of essential and desirable deviations from the normal. We see here how different attitudes regarding disability and music are expressed and how from this music is seen and used for different purposes, as well as how people see the deaf as a nuisance or contradictorily a heroic figure, depending on their own point of view as well as other various features such as education and understanding of the deaf people themselves.

Through each chapter I will present, I aim to grasp and illustrate the importance for access to music, for the deaf and the variables to be changed, for this to occur. The first chapter focuses on how attitudes in society reflect the perceptions of deafness and how this can influence the roles of educators and music programs. This therefore gains a significant insight on deaf people in society, as well as giving the reader a personal link and understanding of the characters and oppressions deaf people can face in every day society.

The second chapter, Rhythm identifies different elements of rhythm and how this is perceived, through ear or the body and different arguments on how this is relevant to the deaf's learning of music with focus on specific learning methods, which enables the deaf to understand the concept of rhythm, which can also support in learning other musical constituents.

Music in education is one that is regarded as the most important and defined chapter because it is wholly responsible in how a child perceives music. Without the correct use of education for the individual, the child wont be able to develop the musical skills that they have been taught from a young age, therefore under benefiting and

missing out on the concept of music. I have approached this topic by highlighting areas of deaf education, music education in general and specifically music education for the deaf as well as, of course, analysing the varying attitudes and beliefs associated with this issue.

The development of technology has enabled the deaf to have access in music that has only been possible in modern times, thus supporting a possible theory that the concept of deaf musicians is hard to administer due to the lack of them in history because there wasn't enough methods to teach deaf people music. Here I focus on the use of hearing aids and cochlear implants as well as other modern technological devices which has helped spurred musical access.

Lastly, the chapter on the insight of professional deaf musicians and companies is representative to modern society, through the influence of factors mentioned in previous chapters; this therefore has spurred the way on allowing the deaf to achieve on a professional level.

This literature investigation will allow us to see how music is important to the deaf and the importance of allowing accessible methods to allow them to retain, develop, understand and respect the exceptional magic of music.

Chapter One: Deafness

This chapter aims to introduce a brief argument on the conflicting views in society on deafness; focusing on the term of viewing deafness as a medical impairment. These views are important because they play a role on how people with hearing impairments are challenged and how this can relate in associating music ability and potential with the deaf. We see with those different attitudes from different professors and educationalists in music and deafness, illustrating how the hearing-impaired are faced with various enduring challenges to represent the right to learn music.

Knight in Gregory (1998, p. 213) states:

Much of the perceptions of deaf people evolve from dominance of the professional medical profession, which influences all concepts to the deaf person's lifestyle - in how to educate them, in how they function and basically, in how they live their life.

Medical opinions are drawn from physical neurosis analysis of sound and its linkage to the brain results in various theories of how to understand the break through the concept of deafness from many medical experts.

Drake and Barton suggest that in advanced Western societies the predominant view of disability is one informed by the medical profession. Drake in Gregory (1998, p. 215) claims that, from a medical perspective, 'people are disabled as a result of their physiological or cognitive impairments.' The medical response to this is to seek a cure and the aim is to rehabilitate disabled people into the wider society, so therefore in relation to my topic, medical experts would seek to give deaf people as much hearing as possible through many methods i.e. hearing aids to enable them to rehabilitate comfortably

in the wider society.

However, Barnes and Mercer see the medical model as a deficit one, focusing on personal limitations which they see as the responsibility of the person themselves. It is their functional limitation, which is the root cause of the disadvantages experienced, and these disadvantages can only be rectified by treatment or cure. The medical model emphasises individual loss and inability contributing to a model based on dependency on the wider society. (Knight in Gregory 1998, p. 214-15)

This contrasts with the earlier medical model example - so immediately we see how medicine defines deafness and how they seek a range of methods to "improve" the ability to succeed for deaf people.

Knight in Gregory (1998, p. 216) expresses how the social model is also criticised for having the goal of 'normality' for disabled people. He states: "Each society has expectations, beliefs and values of its own which constitute as a concept of normality for that particular society." The social model incorporates the assumption that all members of society, must aspire to the same norms, which is not always the case obviously.

Reagan in Gregory (1998, p. 217) suggests that this medical or 'hearing view' of deafness is concerned almost exclusively with 'the audiological' features of deafness and, as a result, emphasises what a deaf person cannot do (or cannot do as a hearing person would do). It can be argued that the principle focus of a medical model of deafness is to minimise the effects of deafness, which is viewed as a deviation from the hearing norm. The aim then becomes the 'assimilation' of the deaf person into the hearing society. Although this is important and a vital attitude to take to integrate deaf people into music, it is neither natural nor does it allow them to accept themselves for who they are. Deaf

people will always be deaf - but instead of seeing it as a disadvantage, they should make it into an advantage and seek to overcome such medical opinions by achieving musical understanding.

Different perceptions of deafness are important on how the structures of learning and educational processes developed in the teaching environment, whether it be in the classroom or in community work or professional training or anywhere else. It is important for us to consider how the roles of different attitudes can affect how the deaf are given educational, social and musical opportunities, and so we need to push away from the stereotypical view that is given to deafness and this will allow deaf people the opportunity to discover their individualism into certain practices, enabling them a chance to surge their development in the education of music. This can only happen if deaf people believe they can access music despite their hearing losses, by ignoring many scientists, doctors, even teachers - this poses a big challenge, and so these attitudes need to be confronted and changed so deaf people can be the musicians they really truly want to be.

Chapter Two: Rhythm

Rhythm has always been, and will continue to be so, one of the most important fundamental aspects in music as it is what fundamentally shapes the structure of music itself. There are many arguments believing that rhythm can be perceived in different ways; some believe that in order to understand the complexity of rhythm a good musical ear is required, whilst others believe that rhythm can be felt through the use of physical movements and through the body. Deaf people on whole are easily taught rhythm - because most deaf people become reliant on their other senses, to substitute for their loss of hearing, so in theory they are physically more sensitive of beats, sounds and rhythm. We see why this vital in enabling the deaf to achieve a basic musical understanding.

Bunt (2002, p. 60) supports the view that rhythm is an important aspect of music:

Of all the elements of music...it is rhythm that is acknowledged to be the vital therapeutic factor by virtue of its power to focus energy and to bring structure into the perception of temporal order.

In support, Gardner in Bunt (2002, p. 64) also states that rhythm is of importance and believes that in order to understand it, we do not need an immaculate hearing. He states: "Rhythm does not rely solely on the auditory pathways and mechanisms."

This relates again to the argument of whether a deaf person can have equal access and understanding to music as a hearing person is able to. In Gardner's statement he proves that people with hearing impairments often report that rhythm is the ingredient that provides the easiest access to comprehending music. We see how this argument is in favour of successful and potential deaf musicians such as Beethoven and in modern times, Evelyn Glennie, who is believed to have a highly sophisticated rhythmic

understanding and performs music of intricate rhythmic complexity. (ibid)

These comments in regard to rhythm strongly support the view that deaf musicians are capable of understanding the perception of rhythm which is an important factor in music that we need to stress in order for them to have access. In understanding the rhythmic complexity of music, we can then further develop the musical constituents that are combined with it, thus resulting in the deaf being able to fully comprehend and appreciate the concept of music. This method then needs to be applied and used in methods of educating deaf children in music, so they are able to benefit as well as their hearing peers, as well as giving them an opportunity to develop their musical knowledge and talent over the years.

Interestingly, Hampton Phillips (1995, xi) states that in western music, rhythm is the least studied of the elements;

Perhaps it is because rhythmic phenomena are elusive and hard for the student to grasp and assimilate, leading to over-reliance on note learning in the early stages. Perhaps, too, we are disconcerted by rhythm's dual attack on our senses: seen (read) and heard on the one hand, sensed and felt on the other.

This is the disadvantage that we have in the educational understanding of rhythmic language in music, as he clearly explains that rhythmic methods depend on learning the foundations of rhythm, which are not always taught in the way that it is easy to perceive. Consequently because of this the role of rhythm is undermined and underappreciated when it should in fact, be considered important. I seek to study the different beliefs of how rhythm should be learnt and perceived: heard or felt: as this is the key feature into understanding how rhythm can influence the process of developing talent

in music. With understanding of this we can then be led to understand rhythm in a different perspective and the ways of teaching rhythmic patterns that can benefit the deaf individual.

Inner rhythm

Inner rhythm is an important way of perceiving rhythmic language and in learning this, time and patience are crucial elements required for the individual to establish and develop their inner rhythmic skills. Once this is done, the individual are able to develop foundation skills to later, understand the overall concept of music. Inner rhythm allows the opportunity for the deaf to understand rhythmic patterns so that can develop a personal and natural way of perceiving it. Other musical constituents can then easily come into form, in the illustration image that rhythm is the root of music, and through that you can access branches of various musical constituents. In saying that, inner rhythm is one approach that educators and professionalists should take seriously in order to promote an accessible function of music to the deaf.

Montgomery (2007) believes that you do not need to have a good standard of hearing to be able to access music, because the perception of inner rhythm is a strong aspect of music that allows the deaf to appreciate music. "Music can also be relevant to deaf people who do not use hearing aids. When you walk or run, your body has natural timing, so the movements are not awkward. It is the same with music." Every opportunity should be given to those who are deaf and disabled, to allow them to grow and develop as an individual and find their connection in music.

In regard to how the deaf access inner rhythm, Alvin (1965) believes that the deaf miss bodily rhythm, which she states primarily comes from hearing and that the deaf are unable to consciously process inner rhythm because of their inability to hear. This leads to an infamous and questionable debate onto whether rhythm is heard or felt, and this is argued for and against by many professionals and educators.

In response to Alvin (1965), Klima (2002, p. 215) states;

Music is still music, even to the deaf percussionist, whether or not the ear provides any sensation. It is not based on sensations of sound, but in the perception of music, which is greater than the sum of its sensual parts.

This shows a contradictory argument that the beauty of music can be felt by anyone, regardless of their physical or even mental impairments. This is a powerful impassioned speech and clearly attacks Alvin's, dare I say, stereotypical view of deafness and music. Note also, the dates of both comments, Klima is representative of modern society - so with all the current accessibility and developments we have - we can now give deaf people so much more, so the question is raised, 'Has the idea of deaf musicians become more acceptable over time?' and if so, what has made this so, this is an important branch to my argument, if not a dominant issue so I shall speak more about this concept in a later chapter.

Benari (1995) talks about the relation of rhythm and deafness through the art of music and dance and believes strongly in alliance with Edwards (1974) that the correct training and understanding of rhythm brings a significant contribution to musical understanding. She believes that we all have equal accessibility and ability to comprehend inner rhythm, and that if we are aware of this, despite of our disability we are able to gain access into music. Benari (1995, xxiv) mostly focuses on the associating

of rhythm and dance but due to the similar teaching methods and concepts of dance and music, them both being dominant musical arts - we can apply her statements to the learning process of music. She quotes: "When a lesson concentrates on developing the awareness of the rhythm of movement, the breath and the music within dance itself, hearing is not so important."

This supports the view that in order to have access to music and to develop a stronger sense of rhythm, we don't necessarily need the function of ears to support us with it, therefore disagreeing with the Alvin's statement that rhythm should be taught through hearing. Benari believes that rhythm can be perceived just as well as through the sense of feeling and touch, and that this can further enhance the deaf's understanding of rhythmic language giving them a fundamental access to music.

Benari's experience as a dancer has led her to explore different methods that may be suitable for the deaf to gain access in music. One example is, when she danced energetically with others, she found that they all begin to breathe at the same speed therefore the tempo of the dance determined the rate of breathing. She wonders if this could happen in reverse; if dancers were encouraged to breathe at the same tempo, would it be easier for them to dance in time with each other? Benari quotes: "Breathing could be a very useful tool in helping children become aware of the existence of rhythm and of their own inner rhythm." (ibid, p. 9) In acquiring this awareness, they could approach dance in silence in the same way as hearing people, moving on to an understanding of the rhythm and breath of their dances. Benari (1995, p. 53) concludes: "They can all also benefit from 'seeing' music, approaching an understanding of it through visual means." This is an interesting point of view and a clear and successful example of how musical

definition can be taught visually - underplaying the predominant assumption of the important role of the ears.

Teck (1994) also supports Benari's view in understanding rhythmic language and explains the importance of substituting the use of the ear for the body in order to recognise and follow the music. This kind of access is one that is suitable for the deaf, because this says you can substitute your ears and still receive music comprehension. With understanding inner rhythm deaf people can access music as it is the foundational root of music so therefore, it enables the deaf to build up on their development on understanding music through the ear, but only after that have understood the full concept through a part which they are most familiar with; the body.

To help identify the timing in the music, Teck follows the approach that mimicking mentally what you hear as the main points in timing helps to identify the beats; such as 'YAH-di-dah, YAH-di-dah,' and 'tick-a-tick-a, tick-a-tick-a.' (Teck 1994, p. 7) Teck refers to approaches of rhythmic timing for dancers as this is a more visual and physical approach, but like Benari, because music and dance are closely linked we can use her statements in link with the concept of music. However, we have to take into consideration the importance of the relationship between the individual and the music and how this is approached. This is an important issue, due to the range of hearing abilities and body sensitivities level amongst deaf and hearing people, but once they are able to familiarise themselves with the rhythm through understanding it visually, this creates an awareness of music, and therefore promotes equal access in musical learning.

This is backed up by Teck (1994, p. 127) who states;

A listener's perception of rhythmic patterns in time can be greatly skewed by the addition of different

pitches and tone colours. This was discussed in connection with drumming patterns, and is something for students to be aware of when trying to discern what the timing patterns are in music.

Therefore the choice of music and the way music is taught to the deaf individual is extremely important in how they are able to comprehend the music. As well, note she says 'pitches and tones' obviously this differs between deaf and hearing people - so music with deaf people can be accomplished but far more focus and specific training may be needed. These kinds of attitudes and beliefs on the idea of how inner rhythm should be developed stems from the belief of how rhythm generally should be perceived - through the body. But different parts of the body can be used to develop inner rhythm, for some it is the ear, for the deaf, it is usually bodily movement - but overall we all need to physically connect the body in different ways to music to develop a natural sense of timing.

The use of integrating rhythmic patterns in body movements

There has been an interesting modern issue, sprouting much controversy about the conditioning of body rhythm through the continuous and unconscious absorption of sound patterns. Benari (1995, p. 11) supports Dalcroze theory in believing that rhythm is essentially physical and muscular memory is achieved by the repetition of dynamic physical exercises. Although some training is necessary for him to respond it seems in fact that the deaf child who has not yet been exposed to music is sensitive to the physical stimulus of rhythm once he can apprehend it.

Swanwick and Taylor (1982, p. 34-35) states how rhythm should be learnt

through physical movement;

Too often, one feels that it is left to the teachers in primary schools to fully explore the muscular or kinaesthetic sense in expressing music through bodily movements and dance. For rhythm is movement, felt inwardly and expressed actively.

This states that the notion of physical movements should be taken into consideration when applying rhythmic practices in learning to the deaf and that all music educators should use the opportunity of body movements to develop a stronger sense of rhythm as the experiment concluded - the earlier the training the more stronger and ingrained the link is (with rhythm) for the deaf individual.

Dalcroze's theory

Dalcroze created a theory that learning rhythmical patterns through bodily movements benefits greatly to those studying music and allows considerable development in the dynamics of rhythmic complexity. It allows us to become familiar with rhythmical patterns and to develop a natural sense of timing. He believed rhythm is the most important musical aspect a musician should have, before they develop anything else. The way that rhythm is taught through physical movements is essential in the understanding of its complexity and structure;

He quickly realised that the musical element of primary appeal to children is rhythm; that the natural response to rhythm is physical, and that the body should be the child's first instrument through which to reflect and interpret the movement and nuances in music. (Dalcroze 1967, v)

This is an important way of accessing the deaf to music, enabling them to understand music through the use of feeling using physical movements to represent sounds. Dalcroze also believes that hearing is not the only part of the body, which can access music. He states: “I came to the conclusion that the motive and dynamic element in music depends not only on the hearing, but also on another sense.” (ibid, viii)

My argument is that because deaf people are sensitive to the sense of touch, they are able to develop rhythmical elements to a high standard, as they become more dependent and focus on their other senses, in this case, touch, and so they can slowly associate what they can feel to what is being played, making them gradually familiar to the sounds that are perceived. With this method of training, they are able to develop their sense of hearing through the sense of touch, and when they become more familiar with the sounds it can be a possibility that they will not have to rely on their sense of touch and possibly later use their own ears once this sense of touch is fully absorbed and learnt.

Dalcroze’s methods of rhythmical teaching

Being aware that musical experience depends on the power and quality of physical sensation (the kinaesthetic sense) Dalcroze decided to focus attention on two of music’s basic elements – rhythm and dynamic intensity with the students using their bodies as their instruments of expressions. Bachmann (1991, p. 16) states;

The representations of rhythm, the image reflected by the rhythmic act, finds a life of its own in every one of our muscles. Conversely, every rhythmic movement is a visible manifestation of rhythmic awareness.

Dalcroze's methods of teaching examines the basic constituents of music and demonstrating that 'music' is not heard by ear alone but by the whole of the body, hence the ability to sense and imagine the movement embodied by music, (as shown through the concept of dance), must be regarded as fundamental to musical training. (ibid, 1991 p. 17)

Eurhythmics was conceived as a method of facilitating the mutual integration of the individual's meter, perceptive, intellectual and imaginative functions, whether or not in the context of musical education as such. Bachmann (1991, p. 298) states: "Regularity of walking gives us a perfect model for the measurement of time and its division into equal parts."

With Dalcroze's greater research, he began to organize total body responses to musical rhythms. The exercises began with walking, at first in two, three and four beat measures, then the considerations of accent and arrangements of rhythmic figures, within the measure, using the arms to delineate other rhythms, creating the object way to develop an easy physical response to the music, or to the rhythm of the music, rather than a laboured activity fraught with frantic mental calculations. (Spector, 1990, p. 56) This shows that Dalcroze believes the way of learning rhythmic complexities is to be able to associate it through different movements in the body;

To create in him the sense of simultaneous rhythms, it is indispensable that he should be made to execute, by means of different limbs, movements, representing different durations of time. These exercises will enable him to subdivide bars into ever shorter intervals of time. (Dalcroze, 1967, p. 43)

Dalcroze offers rhythmic methods that is accessible for the deaf in order to perceive music; by learning different bodily movements to associate with the rhythmical

patterns of music can help the deaf to identify the foundation of music in a physical understanding. This way of learning is one that should be applied because it benefits the deaf's understanding of music.

Dalcroze supports the deaf's ability in perceiving aspects of music and that rhythm is an essential foundation in enabling the deaf to develop musical skills, and that the sense of understanding rhythm supports the ability of ear training;

There are persons, deaf from birth, who can yet appreciate and distinguish pieces of music of different styles, by means of sensations of a tactile nature, by the kinds of internal resonance, which, according to the rhythms of the music, vary in intensity and form. The ear is closely related to the larynx and there is undoubtedly a reciprocal influence between the hearing and vocal system. (Dalcroze, 1967, p. 49)

Dalcroze explains his teaching methods for students to learn rhythm;

It will (first of all) be necessary for the child to insert durations between the movements to be performed to a rhythm or time beat, so as to increase his awareness of his own powers of rhythmic representation. He should then be taught to appreciate the sonority with the rhythm, and to distinguish between that which is movement and that which is sound; and thence to transpose movements into sounds and sounds into physical gestures. (Bachmann 1991, pp.104-105).

He states that in order to develop functionally with the rhythmical patterns it is important for the music to stay on a constant level so we are able to perceive the understanding of music. "Rhythm loses its force if it is not ordered and repeated; metre grows monotonous if it is not enlivened by occasional accentuations." (ibid, p. 193)

Bachmann, (1991, p. 205) in support of Dalcroze also highlights how music can be taught by identifying rhythm as being taught through body movement as important and gives an example on how to help pupils perceive rhythmic patterns;

One of the rhythm exercises designed to ensure that the sense of squareness is present in the pupil's audio-motor metre consists in playing him, as he walks along, a four-square piece of music which he does not already know and asking him to stop when it reaches the end and to clap his hands exactly in time with the final note. One then embarks upon the piece, warning the pupil that the music will cut out somewhere along the way and that he will have to pursue his walk by singing the rest of the piece to himself (or by following another tune) right up to its presumed end, at which point, or before, he has to stop and clap the final note.

Overberk in Ewing (1960, p. 12) supports Dalcroze's theory and believes that there needs to be an establishment of integration as much as possible, of sound perception and bodily movement. He states: "We think that deaf children will never acquire sufficiently without a general rhythmical bodily development."

The implications of the body in the musical mind go beyond pedagogy and can also contribute to a justification for music in the curriculum. Given that music is literally a moving and bodily experience it would be surprising if it were not important in general cognitive development, given Piaget's promise that 'intelligence starts off in a practical or sensory-motor form, only little by little internalising itself into thought.' (Philpott and Plummeridge 2001, p. 90)

To Conclude

We have come to the conclusion that rhythm plays an important role in enabling the deaf to appreciate and understand music and this can be taught in several ways depending on the individual. We see how it is important for the deaf to be given the opportunity to develop their sense of rhythm through physical and visual means, so they

are able to see what is being produced so this allows access and awareness in music.

Bachmann (1991, p. 29) states: “that ultimate musical instrument, the whole human body, is more capable than any other of appreciating sounds in all their possible shades and nuances of duration.” This theory has proven to be significant in educating the deaf to be able to use their physical sense to grasp a natural understanding of rhythm and timing.

Chapter Three: Education

The insight of deaf education, music education and music education for the deaf will be looked at here, challenging different views and attitudes that is reflected on the deaf's role in the educational system, which are responsible for the deaf's development.

Introduction to Deaf Education

Issues in Deaf Education is one main factor that influences the accessibility of music; this involves the role of teacher and pupil relationship with use of communication, teaching methods and different perspectives which influence the potential of the deaf to develop themselves as musicians. With greater understanding we have on communicating with the deaf, the easier the access they can be given.

Deaf education is a complex issue, because there are many degrees of hearing loss, therefore spurring different attitudes on the type of schooling and communication methods that should be made accessible to the deaf as the difference in educational is dependent upon curriculum access and teaching methods apply. Specialised schools, may in an advantage allow better focus on their pupils and a clearer understanding of access in communication but generally do not provide the full curriculum, mainstream schools, however have the advantage of allowing music in the curriculum, but because of the vast amount of children that attend mainstream schools, the deaf could be neglected in terms of allowing extra attention and effort in the learning procedures, therefore missing out the accessibility of educational practices in music.

To conclude it really depends on the individual and for which environmental

setting they are most comfortable with and are able to gain the most out of. We see how different attitudes are developed because of the complexities in deaf education and we need to understand how to deal with these to give priority over the individual's learning and access to music.

Issues in Deaf Education

Many of the practical arguments about the educational needs of deaf children, such as where they should be educated, by whom they should be taught, what kind of syllabus they should follow and what methods of communication they should receive, are really based on answers to, or attitudes towards certain key theoretical issues. Is the deaf child basically like all other children? In comparison to hearing children of the same age, are the 'lower' levels of educational and linguistic performance of deaf children simply the result of slower but essentially normal development? Or does profound deafness result in a different 'psychology' and a unique developmental path? If so, what are the special characteristics of this psychology, what needs does it give rise to and how might these be met? (Wood 1986, p. 5)

Collins in Spruce (1996, p. 103) argues against this thinking and states;

Because a person has special needs it does not necessarily follow that we have to abandon this basis for creative thinking and action. We have to ask the question in what ways do this person's particular needs inhibit any or all the four processes; what do we observe, as trained educators, to be the major stumbling blocks to allowing this person to realize their full creative potential?

This statement agrees with the point that it is the responsibility of the teacher to encourage the child, by introducing several different creative methods in order for the

individual to be able to connect with the one that allows them to give their full potential. In musical terms, these may be aspects of rhythm, the melody, harmony, instrumental sounds and so on that the hearing impaired may find hard to distinguish, therefore the teacher has to be able to find different approaches in order for the hearing impaired to establish the concept to give equal access. Collins believes that if we can make some move to adopting some of the issues he has mentioned, then we may at least be some way forward in fulfilling this obligation. (ibid, p. 107)

One of the problems in providing accessibility to the disabled in music is financially; such as the discussion of public versus private funding, institutional versus community based services, therapy versus education and so on. A major problem has been the exploitation of musicians with disabilities: they have been presented to the public as "curiosities." Another problem is over compensation: that is some people with disabilities feel a need to strive excessively hard in order to make the 'level playing' a reality. Thus, we need much better understandings and more flexible social arrangements to accommodate musicians with disabilities. The Coalition of Disabled Musicians believe there is not enough accessibility for the disabled, limiting their opportunities: "If these people choose to devote their time and energy to music then the priority given to this issue can cause them endless misery." (Knox 2004, p. 249)

This brief introduction on the general educational system in the deaf has given us a perspective on how teaching methods should be carried out, and that we need to take in consideration of individual with other aspects such as the use of communication in order to provide accessible information.

The importance of Communication methods

Darrow (1993, p. 109) states that we must learn to understand the culture of the deaf in order for music to be accessible;

Perhaps we can improve our education of these students by acknowledging and being sensitive to the characteristics of their culture. The most important thing about learning the deaf culture, is learning to recognise the similarities and respect the differences between it and our own hearing culture.

Experience has now shown over many years of early discovery and diagnosis of deafness that the earlier the process of education in its widest sense is begun, the earlier and more rapid is the development of language and speech. (Reed 1984, p. 45) This links to my previous chapter, when I compared Kilma and Alvin's opposing views, showing that time and experience does indeed affect the services and opportunities we can provide to the deaf.

A larger number of teachers believe that most hearing impaired children can be taught orally but that there is a large minority of group who are very deaf and need manual support in education. It is important to consider the communication methods required by each individual, and music educators are responsible for ensuring that their students are able to gain access from the teaching methods given.

Some will conclude, no doubt, that the communication problems facing children that we have been illustrating are an inevitable and largely inescapable consequence of severe or profound deafness;

We believe that the child's problems are often exacerbated by styles of teacher control and we suggest that teachers and schools, whatever methods of communication they are using, can measure the efficacy and value of their attempts to facilitate

the development of their children's linguistic competence by examining and analysing their own techniques for conversing with them. (Wood 1986, p. 93)

This demonstrates that communication methods in educating the deaf is of vital importance and is one that needs to be aware in all educators. We need to be aware of what kind of communication method is suitable for the individual and how this is can be applied in the teaching environment.

Specialist schools versus mainstream schools

The support of deaf pupils in mainstream is another important factor in enabling access to music. Watson and Parsons in Gregory (1998, p. 135) state how there has been a parallel trend towards offering in-class support rather than withdrawal from class, which was previously the norm. Ward does not even list offering in-class support in his description in his role teacher of the deaf but in contrast, Powers suggested that secondary-aged pupils were already receiving slightly more in-class support than withdrawal and this practice has become more prevalent. While some have welcomed this more, others have actively opposed the idea. An example being, Harrison concludes that in-class support can be not only an uneconomic use of the specialist teachers' time but may actually be detrimental to the pupil's progress, since mainstream teacher may tend to work through the specialist teacher of the deaf rather than interacting with the pupil directly. Taking a more positive attitude towards the practice of offering in-class support, it is possible to see the teacher of the deaf fulfilling a valuable role in this area. However the view of writers such as Harrison serves to oppose this view indicating

withdrawal was the preferred option in both parties interests - teacher and pupil.

Dale (1984, p. 2) argues against a good point on how the different social atmosphere a deaf child is put in, can enhance their learning abilities or not. He states;

Is it ever possible to give handicapped children who spend most of their young lives in special schools...the range of experience which will enable them to live satisfying lives in the ordinary world? Or, to put the question the other way: is it possible to provide in ordinary schools the specialised services that handicapped children require while at the same time ensuring that they mix socially and in school with the ordinary children from their neighbourhood?

Boyle in Ewing (1960, p. 3) believes mainstream schools are the answer to this question;

As a general principle we believe that handicapped pupils should not be sent to special schools if they can be given suitable special educational treatment in ordinary schools...The object is to give deaf children as much encouragement as possible to use what hearing they have...and also to enable teachers in schools for the deaf to concentrate on methods of teaching.

Both special schools and mainstream schools can provide disadvantages and advantages depending on the individual; we have to weigh up both possibilities in order to decide which will be a better access in the educational learning of music. It is vital for the deaf to get as much as they can out of their learning environment so they are able to develop from their source of learning to their sense of creativity.

The curriculum

The imposition of the National Curriculum has led to other constraints on what is taught in both content and teaching styles. For example, the teacher might want the

children to be investigative but have to exercise a more didactic method of teaching in order to get through the content in the required period of time.

Wakefield in Gregory (1998, p. 127) states;

One of the major issues brought about by the introduction of a structured curriculum, is that in many mainstream schools there is continued difficulty for the teacher of the deaf to negotiate the time for, and to achieve acceptance of the crucial importance of the various educational areas in which work is necessary for the specific educational development of the deaf child.

These are as included: communication skills in all their variations from lip-reading through to a truly bilingual approach; the reinforcement of basic core skills of reading, writing and numeracy; deaf awareness issues ranging from access and knowledge of the local and national deaf community to deaf issues and peer awareness. The time available for these special elements of educational provision has to be balanced by the teacher of the deaf against the value of the work done, versus its intrusion into the broad mainstream curriculum. Issues specific to deafness, even those seen as educationally valid, such as linguistic delay, may not be understood or valued by the host school and need constant explanation and emphasis, never mind the more esoteric elements of access to, and knowledge of deaf culture.

Wakefield in Gregory (1998, p. 134) states: “Flexibility, approach and encouragement are important for development and achievement,” defining adults in educational roles need to administer these three values to ensure music is accessible for deaf people. Despite this there is still a real danger that the schemes will not be understood by further education and employers unless some unification and clarification of standards is developed. In the development and revision of the curriculum in the next

millennium is of vital importance that teachers of the deaf continue to be more vocal and consistent about the rights of all hearing impaired children and an advocate for true equality of access.

To conclude, it is important overall for educators to understand how to fully communicate with the deaf and to be able to understand their language in order to cooperate equally with them, therefore making their education and understanding of music accessible. It is important for them to understand that each individual have their own individualised hearing, which means different communication methods and ways of perception, may need to be developed or modified to suit the individual.

Music education

In order to understand how to approach the general teaching methods of music education, we can then link to how the methods can be justified for the deaf so they are able to have an equal access to music.

It is argued in schools, that teachers frequently lack expertise, resources are inadequate and classes are too large for people with disabilities to benefit from music. The use of equipment may depend on private or corporate donations. Thus, important learning opportunities will be missed during these crucial years, unless a family can access private lessons. Musical institutions need to provide more resources and work harder to acquire funding to support ongoing service, education, research and development.

Knox (2004, p. 248) states;

Music professionals operate within a social Darwinist jungle where the ruling principle is 'survival of the fittest.' People with disabilities (as professional or semi professional musicians) are 'winners' if they succeed, but exemplary failures who 'have not come to terms with their disability' if they do not.

He also states on how it is important for music in education to be free from restrictions, to not be limited to singing and playing and 'classroom' music should not be divorced from 'real' music; nor should modern music be isolated or forgotten in an effort to introduce traditional music. Again, this points out how it is believed that the stimulation of experiences and the environment is considered to be a great influence upon the individual's understanding of music.

The process in how music is taught and delivered to pupils in schools is an important aspect in how music can be accessible. There are several different points to think about, when teaching music, especially to the hearing impaired, one needs to consider different methods in able to allow them to perceive music fully. Swanwick and Taylor (1982, p. 7) state how important the role is of a music teacher, giving responsibility for the success or failure of students;

In a quite frightening way teachers stand between pupils and music, sometimes acting as a window or an open door but at other times functioning only as an impediment, blocking off access to music itself.

Thus the way we learn, and how we learn is extremely important in relation to how we carry this educational experience to relevant future works, and we see how teaching professionals contribute to our development.

It is also approved, the earlier on the individual assesses music, the more ingrained this is - and the more easily it is form them to develop a natural rhythm and

understanding. Thus we need a good and extensive basic experience of music education and understanding at an early age.

Special abilities do not just develop haphazardly as a child grows up. Therefore we have to help especially those children from underprivileged social groups. For this we have the best chance in nursery schools and primary schools because at this level all social groups are generally included. Time lost and opportunities neglected in early education can only be compensated for later on with great difficulty. (Denkmann 1977, p. 1)

Music education certainly seems to be passing through an interesting, if difficult period. Over a decade or so there has been a tremendous proliferation of ideas and suggestions in all branches of the profession. This is particularly noticeable at school level, where the comprehensive ‘problem’, the urban ‘problem’ and the creativity ‘movement’ have caused much soul-searching and re-appraisal of beliefs and strategies.

More recently, sociologists have turned their spotlight on music education, identifying ‘elitism’ in our professional practice, observing our narrow definitions of music confined to the Western ‘classical’ tradition and pointing out the inadequacies of our intellectual framework and teaching methodology. Swanwick (1979, pp. 5-6) backs up this statement: “We have failed to notice and publicize the central core of music education, which is that music education is ‘aesthetic’ education.”

To conclude, Dewey in Philpott and Plummeridge (2001, pp. 203-204) believes that young people should be educated to make possible a better future for humanity. At present we are still being challenged to rethink the purposes, methods and scale of education required for future generations. Music’s unique role in developing imagination and creativity is well understood, but Dewey believes that we have not yet reached a

position where all pupils have equal access. He believes that the music curriculum should be designed to include all children whatever their abilities and background and opportunities in music should be equally available to all and that teaching strategies should be built on principles of inclusion, both in the recognition of cultural diversity and in the way that making music is designed around the individual learning needs of the pupils.

Music Education for the Deaf

The above two previous chapters: Deaf education and Music education has enabled me to investigate more specifically on sources for Music education for the deaf. I thought it was important to introduce the different educational methods and conflicting views provided by the previous chapters, as I believe this has an essential link with how music education for the deaf is developed.

Montgomery (2007), a professional deaf musician, has a strong opinion (generated from her own personal experiences), on allowing the deaf to have access to music, and believes that all schools should provide a curriculum for their deaf students to be actively involved in music and states: “Music education is important. It promotes language, development, social confidence and emotional growth, especially for disabled and deaf children.”

She also believes that the method of teaching does not need to drastically change to suit the deaf, but to modify it to suit the individual, just like for a hearing child on their level of abilities. She backs up the view that deaf people are able to perceive music in a

visible function and still understand the concept of it just as well. (ibid)

A study by Gfeller, Darrow, and Hedden in Darrow (1989, p. 10) found that hearing-impaired students, along with behaviourally or emotionally handicapped students, are perceived by music educators to be the most difficult exceptional student populations to mainstream into the music classroom. This is due not only to the nature of the impairment but also to the lack of specialised training essential to teachers working with hearing-impaired students. Classroom teachers of the hearing impaired, in order to meet certification standards, follow an academic program that includes coursework specific to the disability, such as speech and hearing science, audiology, aural habilitation and manual and oral communication. Without this teacher preparation, the music educator is often at a loss for requisite information regarding this sensory impairment.

Research studies pertaining to music and the deaf fall into three broad categories: music perception, music performance, and therapeutic uses of music. Much of this research indicates that hearing-impaired individuals are capable of developing various music skills, though perhaps delayed when compared to their hearing counterparts. The question remains as to whether these music skills are reinforcing enough or can be developed sufficiently such that hearing impaired students will continue to make music a part of their lives. (Darrow 1993, p. 95)

The impetus for the work described here comes from the desire to be able to pass the information content of music into the brain and so enable it to be more clearly perceived by the partially hearing and to be more fully accessible for those with little hearing. This is being done in three ways: by processing the sound to make the best use of available hearing; by providing a colour graphic visual display which is designed to be

an analogue of the music, phrase by phrase; and by providing a representation of the music in vitro-tactile form. Where necessary, the information is being additionally transmitted to the brain in a way, which bypasses the ears, but in all cases the ears are being used to the maximum extent possible. (Dalgarno 1990, p. 100)

Despite its substantial history, music instruction for the deaf still seems impractical to many people. This may be due to misconceptions regarding the hearing-impaired community's capacity to hear and appreciate music. In the past we referred to all individuals with a hearing loss as deaf. The meaning of the word *deaf* is generally accepted as 'without hearing.' This way of thinking has brought up different attitudes regarding the way music is viewed in society in deaf musicians. Many people believe that to be musical one must have a good ear, yet a hearing impaired child can be musical. The hearing loss may limit the child's musical capacities; however, hearing impairment does not vitiate music responsiveness. (Darrow 1985, pp. 33-34)

The music classroom serves as an excellent vehicle for the integration of hearing-impaired and hearing children. Specialised assistance may be needed, but hearing-impaired children using their residual hearing can participate in singing, playing, listening, moving and creating experiences with other hearing children. (ibid)

Robbins (1980) also like Darrow, supports the use of music with the deaf, and follow through experiences, process, consideration methods and arguments on this topic. They argue against the fact that music can be treated equally to the deaf, we just need more consideration, time and practice to work with them. In consideration for musical materials for the hearing impaired children he states;

They must have clarity of form, directness of expression, substantial musical appeal, adaptability, and be able to offer

opportunities for intercommunication and sharing, enjoyment and enrichment, engagement and discovery, self-actualization and learning. (ibid, p. 1)

Listening may be a very valuable necessity in the use of music academically and socially, but it is argued that for the deaf there are several other aspects to hearing as the deaf are prone to sensitive areas in their bodies which allow them to be able to feel and understand the rhythmic part of the music, with the melodic part it is often stated that the deaf can have an advantage when sounds are not so distinctive; they can focus and understand the tone colours of a particular sound.

Gouge (1990, p. 279) insists that the mainstream music curriculum should be made accessible to profoundly deaf students to the benefit of all-careful planning, which is essential. He states an interesting quote which may lead to the reason why there is a barrier between the deaf and their music;

It is strange how, when it comes to students with special needs, what looms up first in many people's mind is the disability, not abilities, the generalisations and assumptions, not the enthusiasm or requirements of a particular individual.

Gouge feels very strongly about allowing music to be accessible for the deaf and states;

I have come to understand that if there is any 'handicap' to music for young deaf people it is not one imposed by a hearing loss. It is rather, those wasted years without access to musical experience of whatever sort and the consequent lack of opportunity to build up all the meanings and associations we have towards music." (ibid)

To conclude, the deaf are not a large proportion of the total population of children. Those in special education, no matter what their disability, are generally in small schools with largely non-specialist staff and there are a few trained musicians who specialise in this area. The techniques of teaching the deaf are only now being researched

and developed and very little is generally known about teaching them music. This needs to be modernised, redeveloped and activated further to allow young deaf students to have the chance to become young deaf musicians.

Listening or feeling?

One of the controversial questions regarding the deaf and music is how they can function with it. Edwards (1974, p. 25) states:

“Do deaf children hear sounds or do they feel them?”

I believe this is not a question that can have a straight answer. Many of the deaf have different levels of hearing and they may connect with some sounds better than others, depending on what they are used to hearing and what their ear is able to function in hearing. Maybe because the deaf are so used to feeling sounds because this is the body's natural reflex, that their ear becomes a second best instrument. This is disadvantageous in the respect that it can lead to them missing out opportunities to be able to feel and hear at the same time and to identify the different levels of sounds. However, the deaf expertise in feeling can help to link with the sound as well benefiting them in both ways which Edwards (1974, p. 25) backs up, when she states:

“A deaf child’s touch can become so highly developed as to almost take the place of his ears.”

Alvin (1965, p. 2) questions whether music can be used at a deeper and more effective level and in providing access to the disabled, the importance of the teaching individual to contribute to the disabled is significant;

The musician, who excels in the variety of sound and rhythm important for a disabled suitability may still not understand the full nature of the disability itself. They may not be trained in the specialised teaching methods adapted to the individual handicap.

It is difficult to decide which specialised persons is suitable for each disabled individual and that is one that often lead to many arguments; with this area not being paid much attention to and thus restricting the accessibility that music can offer to the deaf.

Specific features of the music should be used to encourage the deaf through their relationship with music. Alvin (1965, p. 145) shows examples of this such as the use of live performances rather than recorded performances, music in the lower register and with a strong bass; as the deaf is more likely to respond to lower frequencies than higher ones. The low sounds of the strong rhythmical bass may give the deaf child his first impression of rhythm in time and an opportunity to translate it into movement. The use of certain instruments is a significant contribution towards the development of the deaf enabling them to choose the suitability of sounds they can refer too and also exposing them to a wide range of sounds they are able to adapt to. As explained before, higher frequency sounds are rarely suitable as they are harder for the deaf to hear, therefore they should learn instruments with lower frequencies, which gives them a feeling of volume or plenitude. Alvin (1965, p. 134) proves that some specialists have even been able to make the deaf appreciate differences in pitch which proves that regardless of hearing difficulties, if the right amount of training and methods and use of encouragement is used then it is possible for the deaf to overcome their hearing impairment and use their powerful sense of feeling to communicate and develop themselves through music.

It is often mistaken that all deaf people cannot hear at all and substituting hearing

sound to feeling them instead. It can be said for the minority of deaf people that they cannot hear anything at all, but for the majority, those who can hear can be given the opportunity to therefore develop their listening skills in gradual time to become familiar with different sonorities in music. A deaf person can be taught to hear, just the same as a hearing person is taught gradually over time to identify different pitches of notes. This is backed up by Michel (1985, p. 38) who states;

Music is not only a way of helping people become aware of vibrations made by musical instruments or to perceive rhythm and rhythmic organization in music, but it is quite valuable as well in helping people become aware of areas (frequencies) of sound in which they may still be able to hear. The actual perception of music as sound vibration may be useful to some people in an organizing way. For example, if a child who is born deaf can become aware of the pulsations of music, and observes that there is a rhythmic regularity to it, that others are following this 'beat,' and that he may follow it also, this is the beginning of possible interactions of that individual with others in a social activity.

Michel's argument supports the view that a deaf person can be taught to hear and the general fact of hearing losses in the hearing impaired also supports this proving that the hearing impaired are able to hear most sounds that surrounds us; mild loss – none, moderate loss – 5%, severe loss – 15%, profound loss – 70% and total loss – 10%. Therefore, this concludes that 90% of the hearing impaired are actually able to hear. (Robbins 1980, p. 11).

We know that the 'damaged' ear does not perform so well, but just how well it does perform and what the relationship is between frequency discrimination and hearing level is difficult to determine from the literature, due to limited research on this area; One of the best studies on this subject was carried out by Dr. Gengel at Central Institute for the Deaf. He found, that, after training, a group of deaf children (average hearing level

around 90db) could discriminate a 5% change at 500Hz (one octave around middle C) while a group of hard-of-hearing children (average hearing level around 60db) could discriminate a 3% change at the same frequency. The score for normally hearing children was 0.8%. These findings prove the argument that if music is accessible to the deaf it can benefit them hugely. This also relates to musical pitch: one semitone represents a change of about 6% so all severely deaf children should be able to discriminate among the notes used in Western music. Profoundly deaf children may have difficulty with semitones and tones, but many of them will discriminate larger intervals. (ibid, pp. 17-18)

Muller in Teck (1994, p. 46) believes that awareness is the most important thing in music and teaching people how to listen. This is supported by the outlook that if an individual receives the correct methods and amount of training suitable for them, they are able to develop a lot more. They can use other parts of their body to substitute for their hearing, and how this is used to its full capabilities lingers on the fact of allowing full access to music. When saying that they can use other part of their bodies to allow access, this however does not eliminate using their hearing altogether. The amount of hearing left in a deaf individual, must be used to its full potential and in the correct training methods in order for them to access sound at the same equivalent as a hearing person. If a deaf person is trained to become familiar with the sounds that are produced, this already brings them up to an equal level; their ears need to get used to the sounds that they probably have never given the opportunities to be heard before, reasons probably lingering on the fact that it has never really been considered.

Darrow (1985, p. 35) highlights the use of ear training in deaf musicians and believes that with the correct use of training and approaches we are able to develop their

listening skills, for them to become familiar with the different tone colours and sonorities associated in music. She states that in most cases we cannot change the hearing impaired capacity to hear; but we can help him or her develop good listening habits. This is backed up with Teck (1994, pp. 47-48) who states: “Musicality is a learned awareness... You don’t wake up one day and know music.”

Montgomery (2007) believes that music has whole lot more expression and meaning to it, then the perception of noise.

To me music is all about colours, pictures, stories, direction, and life...A lot of music teachers do not teach deaf children that kind of thing and deaf children think music is all about sounds alone.

Thus we see here how accessing music to the deaf in various ways is important in enhancing their musical understanding.

Seashore in Edwards (1974, p. 77) has devised a number of standardized tests on the assessment of musical talent. He himself states that ‘musical reflections and emotions are examples of talents which are too diffused to be measured although we can weigh many of the factors which are determining components.’ He investigated the auditory perception of musical elements and of their possible relation of intellectual or mental ability. His results stated that no high intellectual process involved in the perception of pitch or intensity, but when memory, logic or judgement between auditory perceptions are involved, musical perception depends to some extent on the intelligence of the listener. Seashore concluded that a fine sense of hearing enhances the response to music but it does not in itself produce an emotional, just as we cannot assume that fine eyesight produces a love of art.

For the deaf, music education is believed to have a valuable insight in their

lifestyles. Many may argue that because the deaf has a lack of hearing, they miss out the important necessities in music and therefore have less appreciation for it than others who can hear. There are other ways in which the deaf can compensate for the lack of hearing as already argued previously.

However, there are always going to be those who disagree or cannot understand the concept of deaf musicians, i.e. Homarksrichter in Ewing (1960, p. 5) disagrees with the fact that the deaf should have full access in music and that it should be limited;

We do not care to impose on our children something that is not adequate for them. We are not eager to make music with our children... With all our hearts we want an education from or through music, but not an education towards music.

We must question, is he right? Should we deny deaf people the choice to understand and bond with music? Or are we just fighting a losing battle? There are many opinions for both sides, but it is possible that the deaf can develop themselves as a musician and in order to reach out and nurture that talent we need to demonstrate it is possible to listen in more than one.

The choice of musical instruments

Darrow (1985, p. 34) believes that the greater choice of instruments that the deaf is given to learn the more they develop an understanding of the tone colours and sound production associated with it. This is important to consider when working with the deaf, to enable them to have access to the variety of sounds, depending on the suitability of the individual, which then can further their development of musical skills.

Each individual has a different preference of sound so it does not necessarily

mean there is one particular instrument that all deaf people should learn to play. It is entirely up to the individual and what instrument they feel at content with and which inspires their musicality. There is no reason why a deaf person should not be given the opportunity to learn to play a musical instrument to a high standard.

Darrow (ibid) also states that even a child with very little hearing is able to perceive vibrations from many types of musical instruments, such as the cymbals which provides a strong vibratory stimulus, making them ideal for a child to learn musical notation. The chromatic bells possess a range of pitches wide enough for hearing-impaired children to find out those tones they are able to hear and the drum, one of the most popular instruments among hearing-impaired children, provides an excellent tool for teaching rhythmic patterns, experiencing and discriminating the varying durations of sounds.

To conclude, various musical instruments can be used to develop auditory skills. The hearing impaired child must attend to and recognise low, mid and high-pitched acoustical information as interpreting the speech code also requires the ability to discriminate between the varying durations of sound or rhythmic patterns. (ibid, p. 35)

To conclude

Though the extent and scope of the research in music with the hearing impaired is limited, existing studies have produced a number of findings relevant to the music education classroom. These findings in Darrow (1989, pp. 11-12) have both general and specific implications for music educators working with hearing-impaired students. Some of these are:

1. Hearing impaired students can benefit both musically and academically from participation in music activities.
2. Hearing impaired students are more responsive to the rhythmic aspects of music than the tonal aspects.
3. Hearing impaired students may require greater exposure, both in duration and intensity, to music stimuli than normal hearing students in order to meet instructional objectives.
4. Sustaining instruments may provide more useful aural feedback to hearing impaired students than do percussive instruments.
5. Use of moderate tempi assist in greater rhythm performance accuracy by hearing impaired students.
6. Hearing impaired students may perform more accurately by reading standard music notation than by relying on the ear than by relying on the ear to imitate or learn by rote.
7. Hearing impaired students can improve their vocal intonation, both in singing and in speaking by participating in vocal activity.
8. The vocal range of song literature should be taken into consideration with hearing impaired singers.
9. Hearing impaired children are capable of improvements in ear training as are normal hearing children.
10. Vibrotactile stimuli are a useful supplemental tool in the music instruction of hearing impaired students.
11. As with normal hearing children, hearing impaired children can develop a

more sensitive ear over time.

12. Hearing impaired children could benefit from instruction in the use of musical vocabulary.
13. Hearing impaired students exhibit certain musical preferences in regard to sound source, intensity, and listening conditions.
14. Amplification and sound quality of the musical media should be given particular attention when instructing hearing impaired students.
15. Musical instruction can assist in the development of a number of non-musical behaviours such as speech production, listening, language, social, and academic skills.

Fortunately the old idea that deaf children should be excluded for music education is fast disappearing, but sadly one sometimes still comes across the old adage that “music for the deaf is a ridiculous notion.” It is more common to find the lazy assumptions that pianos need not be in tune, or that it also does not matter if tape recorders are producing distorted sound because the students are deaf and they won’t hear it properly anyway. These attitudes are in no way malicious – it is simply a lack of education. It has to become more widely known that musical instruments have to be just as much in tune for the deaf as for people with normal hearing; and, as will be explained, it is more, not less, important that the sound is clear, undistorted and as free as possible from extraneous noise. (Dalgarno 1990, p. 99)

This chapter proves that the deaf should be allowed to have full access, because it has the potential of benefiting them with the right training, educational methods and attitudes. We will surprise ourselves how the deaf can develop their musical skills

quickly and will feel a whole sense of pride in allowing equality in the educational system.

Chapter Four: Technological Advances

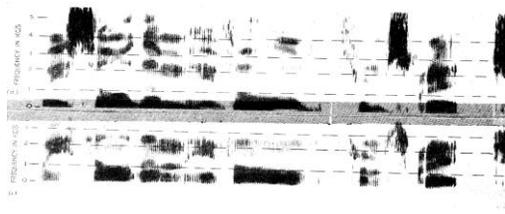
The development of technological equipment in music has been supportive to provide those to have an access in music; the use of cochlear implants and hearing aids are a way of amplifying sounds so the distinction of different pitches can be heard and developed more strongly through the use of ear training. It is important for the deaf to be given the opportunity to use hearing aids or cochlear implants as soon as their deafness is diagnosed so the deaf individual is able to develop and respond quickly to different sonorities and recognise the concept of sound. The deaf should be given the chance to make use of their residual hearing, and whatever they can hear through technological measures should be made the most of, and careful training to be applied to ensure the ability of having access to musical constituents. Some may argue that in providing hearing aids it is not a 'natural' way of allowing the deaf to hear, others would argue it is a worthy access in allowing the deaf to experience a vast amount of sounds.

Hearing Aids

Watson (1996, p. 24) states how the use of hearing aids enables the deaf to identify different sonorities;

Hearing aids consists of a small microphone which collects the sound and converts it into electrical energy; an amplifier which increases the intensity of the signal; and a receiver which converts it back to sound.

Example of how the use of hearing aid is able to identify sounds



Reed (1984, p. 71) argues against the perception on the use of hearing aids;

A child wearing a hearing aid shows to others that he has an impairment of hearing; but this can sometimes be counterproductive. Some people then believe that the child will be able to hear everything...Even for those with moderate impairment not everything is heard clearly and mistakes can be made, therefore teachers and parents must be aware of this.

The use of hearing aids which primarily has been designed for speech, can also be used at an advantage for music listening for the deaf, which can be very considerably improved by using readily available equipment to process sound in particular ways to compensate for different types of hearing deficiency. The author here observes that some deaf people seem able to perceive music, especially the pitch of notes, more clearly than others who are substantially less hearing impaired;

Some aids, group and individual, have other controls such as tone controls, so that the differences in hearing for different frequencies can be compensated for. These basic principles of design are the same for group or individual hearing aids but some have different refinements to help different types of hearing loss. (ibid, p. 78)

However it is important for the individual to make use of his hearing aid and to individually develop his listening skills through different sounds, this is the only way he can have access. There are some disadvantages on the use of hearing aids on how it has not been recognised to the public, which can cause problems in associating hearing aids

in everyday life and in educational systems, which can then delay the ability of learning, development and listening skills.

Schamehl in Ewing (1960, p. 3) states: “How far residual hearing may be activated and used depends not only on its quality but on the full personality of the pupil, especially his intelligence.”

The benefits of these aids to hearing have not been recognised to their full extent by the public is due to the following; We lack trained personnel and well organised courses which could help greatly in training the future generation, the acquisition of necessary aids meets with financial difficulties, school organizations and school systems often oppose the selection of desirable hearing aids and we lack audiology centres which are necessary for the successful selection of hearing aids. (ibid)

Music Technology

Knox (2004, p. 250) states generally how music for the disabled in today’s society is considered and how far the limits are stretched to use music in an accessible form. He states that there is not enough accessibility in most countries for the disabled, proving that traditional institutions of music education exclude persons with disabilities. Knox explains the use of adapted music, which aims to address the needs of people with disabilities and instigate, develop, and nurture new musical communities.

The use of music technology has developed over the years to support access to the disabled, the most important example being the adoption of the Musical Instrument Digital Interface standard in 1982. With MIDI, and the general availability of

microcomputers, there has been an explosion of music hardware and software developments that coincided with major developments in rehabilitation engineering. Thus, there was much interest in developing alternative controllers, including applications of music technology employing the standard ability switch used by people with disabilities. Additional access methods applicable to standard music software evolved, too, including head pointers, touch screens, joysticks, and adapted keyboards.

Levitt in Powell (1985, p. 119) brings up the issue of modern technology and how this has enabled the deaf to be given more of an opportunity to allow access;

The hearing aid, auditory trainer, FM speech transmission devices, specialised audiovisual systems, and telecommunication devices for the deaf are all examples of the technological aids that have had a direct impact on the education of the hearing impaired... There is now a much more positive attitude toward the greater use of technology in the classroom which, in turn, has opened up an abundance of new possibilities.

However many people oppose the use of a music technology system for people with disabilities. Different reasons were given such as: the sound quality of electronic music technology is inferior to acoustic instruments, the music may be too loud and automation makes the music mechanical, negating the fundamental value of flexible rhythm. Music technology can only be used to some extent, so critics say it would be best to guide people with disabilities in the direction of music appreciate and listening. To critics, simple-minded recreation and education approaches end up trivialising music.

(Knox 2004, p. 250)

Music technology is also very expensive and this leads to allocating resources that help only a few people. While technologies (e.g. The Internet) may allow better access to music, we have not yet reached the point where technologies can enhance control or

participation in music by large numbers of people with disabilities. We can only hope that a world economy improved by freer trade might lead to benefits for people with disabilities. (ibid)

The ultimate goals of adapted music are to enhance musical opportunities and emphasise the need for change in the ways people with disabilities access music. To implement musical adaptations, there is still a need to reach into a variety of organisations and settings with interactions that place people with disabilities and their families on a fully equal basis – casual and temporary activities (including demonstrations, workshops, and conferences) are just some ways of initiating this process. (ibid, p. 252)

To conclude

The development of technology has enabled more deaf musicians to have the confidence and accessibility to enjoy music on the same level as their hearing peers and we must consider this important development in the use of developing the deaf's abilities.

Chapter Five: The insight of professional deaf musicians and companies

Swingler (2003, p. 247) questions;

To what extent are people with disabilities capable of music making? Does introduction of the idea bring false hope to people whom already face many frustrations and disappointments? Are we really referring only to a few exceptional talents and ignoring everyone else?

Company methods vary, depending upon whom they are working with and what their aims are, some strive to be more advanced and professional whereas some just strive to allow deaf people to access the pleasure of music, it all depends on what meets the individual's needs, and how they want to use their musical talents. There are some amazing deaf musicians in our society, who are brilliant role models. One in particular for inspiration is Evelyn Glennie, who has served her right in society as a professional musician and acts as an almost, idolic figure, for potential deaf musicians who are passionate about their music.

Evelyn Glennie

Evelyn Glennie, is a famous example of how hearing loss, whether great or small, does not count as a barrier in the professional music world. Her personal accomplishments have given an insight into how a hearing impaired person can discover the inner beauty of music and not be afraid of exploring ranges of sounds and textures. It has also given other professionalists; both academic and performers, an opportunity to understand and accept the concept of deaf musicians in society.

Glennie explains her experiences in the musical world, challenging other musicians that deafness need not be a big issue and there are other ways of compensating certain aspects of music to develop your strongest musical skills that makes you as equal as other musicians. Glennie (1990, p. 37) states;

In musical terms, it has meant finding new ways of responding to music, and also a certain amount of having to fight against prejudice or natural hesitancy by people in the musical world about my ability to cope as a musician.

The visual concept of music has proved to be successful in allowing the deaf to use this tool as a communication method as an addition resource for the lack of full hearing. Glennie supports this view and believes with the right amount of dedication, practice and training, the use of ears is not considered to be the most important factor in music.

Glennie (1990, p. 45) states:

You don't need ears to do it; it's mainly a question of practice. What differentiates one musician from another is how one understands the music and interprets what is behind the notes, putting one's own feeling into it, regulating the way the music moves. I didn't need to listen to music because I could read it like a book.

There are different ways in how a hearing impaired person is able to use their bodies to communicate with the music and gain full access to the range of sonorities expressed. The use of vibrations in music, is dependent on the individual and the use of instrument played. Evelyn Glennie is able to use the sensitivity of her body to allow herself to be on an equal level as other musicians who perceive music through their ears.

Glennie (1990, p. 46) states how this special identification of music enables her to understand and appreciate music;

I can also tell the quality of a note by what I feel.
I can sense musical sound through my feet and lower body, and also through my hands; and can identify the different notes as I press the pedal according to which part of my foot feels the vibrations and for how long, and by how I experience the vibrations in my body.

We see here how the seriousness of Evelyn Glennie as a musician is observed, taking her music to the professional standard of the music world, giving opponents who believe that music should not be accessible to the deaf, an insight on how a deaf musician can be successful.

Music and the Deaf

Music and the Deaf is a unique charity, which helps to support the population of deaf youngsters who have a keen interest in music. They are involved in several different projects and activities to enable musical access; some of those which include workshops, music clubs, one to one instrumental tuitions, keys to music curriculum and signed theatre performances. Signed performances represent the unique expression of music, integrating the use of words in terms of rhythmic language. For example the way the different use of words in each song, enables the hearing impaired to become familiar with how it is said and this can be explained through rhythmical language, helping the hearing impaired to become familiar with certain musical aspects but also a way of developing their language skills.

Whittaker (2007), a profoundly deaf musician who founded this company believes it is important for young deaf children to be given the opportunity to make music and states: “It is important to have the opportunity to be involved in the arts regardless of what disability you may have.” When working with deaf people, he states the most important thing that a leader has to have is visual contact. This is an important communication method, which helps the hearing impaired to use their use of vision within other musicians as well as whatever hearing they have.

The use of vision enables the hearing impaired to have a stronger access in the understanding of music and Whittaker demonstrates this through rhythm games in his workshops to make sure the hearing impaired know how important they need their use of sight;

The children are split up into two groups or a circle, and each of them have to respond to a rhythmical pattern that is clapped from the leader in front if the rhythm stays constant and if it changes, the children have to change direction. This sort of approach enables the hearing impaired to use their eyes and ears at the same time.

Whittaker (2007) says by achieving this approach internal rhythm can be developed and also states: “Having hearing, doesn’t necessarily make you hear.” This supports the argument that even though a hearing impaired cannot hear, they are still able to experience music in their own individual ways, whichever part of their bodies is able to connect and respond to music.

Music of Life

The Music of Life Foundation is a UK based organisation with its purpose to

provide professional musical training and outstanding opportunities for public performance for musically gifted children who have a disability, among these are deaf musicians.

However, other opinions, has spoiled the opportunities that music companies like MOLF are fighting for, to gain access for the deaf.

The significant amount of potential outstanding musicians are being overlooked and disregarded by the leading conservatoires that seem to be reluctant to meet the special needs of disabled students and enable them to enjoy the educational process as thoroughly as other students do. (MOLF, 2007)

MOLF proves that it is a serious organisation designed to promote the integration of disability and music, by working with several other companies to support this such as the Associated Board of the Royal Schools of Music, the Royal Academy of Music and numerous of special needs schools across the country, through the use of workshops, master classes and individual lessons. Professors and workshops leaders described the experience of running and participating in the programme as unprecedented and inspiring for both themselves and their students, whereas the MOLF participants benefited from challenging experience of working under the supervision of the finest teachers in the country and playing in ensembles with students, meeting the demands of a professional music making scheme.

MOLF (2007) believes that there are very few possibilities for disabled children and young people, with musical abilities to gain performing experience, which is crucial for every musician. Consequently, most of them never get a chance to discover the excitement of participation in a major concert and to fulfill themselves; working with professionalists enables them to be given the chance to perform in an integrated society,

to a professional musical standard.

For those young people involved this experience becomes a key point in their lives, encouraging some of them to accomplish a professional career. MOLF encourages these major events, as high expectations are raised, giving a turning point in the lives of many children and young people with disabilities because for the first time in their life they are being treated as professionals.

To conclude

Music companies play a huge role in striving the deaf's ability to develop themselves as potential musicians, and to enable the opportunity to enjoy music. This gives the opportunity to allow the deaf to participate on a professional level and, this in turn exclude negative attitudes that is given throughout society of the deaf's potential role in music and what it can offer them. Positive role models remind the deaf of their ability and that they can also be capable of such greatness.

Conclusion

In being given the opportunity to undertake research work on music and deafness, it has allowed me to explore different opinions and attitudes with regard to associating the deaf with music through focus on educational aspects in society. This was an important and personal topic to me and one that I felt needed more attention and recognition, which is why I sought to investigate the role of deaf musicians in society, and the accessible functions in order to support this.

We see how it is significant on how rhythm is the sole foundation of music and that the deaf should be given priority in order to develop their sense of natural timing to compensate for the weak perception of their ears. However, having said we also see the deaf should be given an opportunity to develop the use of ear training to familiarise themselves with the variety of tone colours and sound production and that the earlier training starts the more the deaf are prone to sensitivities in their ear which overall enables them access in music. The deaf may need extra time and intensive training in order to understand the musical complexities that come with it, showing we depend on education and society to provide this. Yet with the right amount of training, attitude and encouragement skills, the deaf are able to perceive musical skills as well as their hearing peers. We see how controversial statements here reflect the decisions and the level of accessibility for the deaf.

The view that deaf musicians cannot pursue a professional performance career in music is one that is often mocked at, due to the predominant theory that hearing is the

only way to access sound. Due to the lack of hearing, deaf people have the belief is made that music is not accessible to the deaf. The talented deaf musician, should need not to see their deafness as a barrier to their musical ability but as an advantage in that it makes them have a higher appreciation and experimentation in the various ways to learn and access music. The deaf musician, himself or herself needs to be impassioned with the very concept of music - so their personal desire drives them towards the ability of achieving their status as a musician. There are probably more deaf individuals with a love or a talent for music but yet do not get recognition, the right education, the right support and encouragement leading them to falter as individuals in the musical society. It is our responsibility to promote deaf musicians into society and give them a range of opportunities and understand their passion to ensure they achieve an equal access in music; equivalent to their hearing peers.

This dissertation has given us the opportunity to discover why the deaf should be allowed to find their special connection in music as well as understanding the concept of 'deaf musicians.' To end this dissertation on a positive note, it is up to us to serve as role models to provide inspiration, education and motivation to all young deaf individuals to ensure there is no barrier to music for the deaf, none at all.

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