

# The Deaf and Hard-Hearing and their Perception of Music

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## Systematic Review

**Keywords:** disability, music, deaf, hard-hearing, opportunities, rhythm, perceptual, ability, tonal

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# The Deaf and Hard-Hearing and Their Perception of Music

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## Abstract

The qualitative case study investigates how Deaf students participate in music in a number of ways and from a variety of backgrounds, including their own experience of education. The event involved a school that provided a music programme for Deaf children and a questionnaire, interviewings, reports and documents were used to examine them. The students have been particularly interested with music by participating in the fields of sign language, song, instrument playing and vocalisation as part of the school music programme. Perhaps because of shared encounters in their music classes students' participation with music in the neighbourhood and in the community through spontaneous music events became able to criticise the stereotypical views of their family members and the community. The musical interests of the students demonstrated a primarily visual and kinaesthetic awareness of music and an emphasis on repertoire learned through the curriculum of school music. The pleasure in music of the students was decided not always by their hearing ability, but more frequently by their hearing concept. The study's findings show that music has a presence in the Deaf community.

## 1 Introduction

“Supporting musical ability and abilities should be offered to all pupils” (NSW Board of Studies 2003, p.8). The meaning of this assertion in regards to Deaf students is frequently debated on the basis that an equal lack of the potential music gratification and accomplishment would

occur with any hearing loss. While the aural quality of music is impaired by a hearing disability, it is not removed from the lives of the Deaf. Perhaps, that is that music is interpreted and heard uniquely by the Deaf, and has a particular role in the history. This research aims to provide an overview of the way Deaf students perceive, participate in music in a

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variety of ways and from a multitude of points of view, including their own views. This research investigates how students want to experience music on a regular basis rather than assess the willingness of the students to listen to various music features. One central research question and four subquestions explored the musical experiences and participation of Deaf students. The key issue is large and represents the evolving existence of this research field. The subcontracts illustrate some of the forms and circumstances under which Deaf students perceive music and are used to concentrate on data collection.

The words “deaf” and “hazardous” in literature have been used interchangeably to describe an individual’s sound sensing ability as a physical condition of hearing loss (Abbott, 1998; Padden & Humphries, 1988). The extent of hearing loss is graded in the terms mild, moderate, severe and deep (see description at the end of this chapter). The concept however does not fully represent each individual’s auditory potential because it does not necessarily preclude each other and is continually redefined because of advances in technology (Bess and Humes, 2003; Dicarlo, 1948). The hearing community has traditionally considered and described deafness as a medical condition which can now be treated with a cochlear implant. This perception of deafness as a disability produces negative attitudes to hearing loss (Bess & Humes, 2003). In the last three decades, however, the disparities that exist as culturally variations rather than deficits have been recognised (Bess & Humes, 2003). The shifting words used to describe Deaf people in the literature (Bess & Humes, 2003) also shown this especially. The literary review used the words from the various sources cited in this introductory chapter (for example, “deaf” using a lower case “d” and “hearing impaired”). However, the participants in this study are named Deaf with capital “D” which recognises their connexion with a distinct group

of society sharing a culture (Padden & Humphries, 1988).

Humphries and Padden (1988) define the Deaf community as those who interact and share a culture mainly by sign language, with their values and how they contribute to society. They propose that the main features of deaf society are the psychological, linguistic and cultural aspects of daily life, like “their art and events,” rather than common physical attributes of their participants (p. 1). The cochlear implant is probably the greatest controversy in this culture surrounding music education. The cochlear implant, which seeks to restore hearing loss, represents a direct danger in the community (especially in the language) of some Deaf people and can deny the infant, by denial of their Deaf identity, access to higher levels of psychosocial growth, personal happiness and improves the quality of life (Bess and Humes, 2003). The role of music in this culture remains controversial among scholars, and to date has been the topic of debate by no writer of the Deaf community. The Darrow’s questionnaire report from 1993 was the first detailed analysis on the role of music in Deaf culture. Following a poll of 300 people who have been affected by hearing disability, Darrow found that cultural affiliation with the Deaf or the auditory community has a big impact on the interpretation of music in their lives. The representation of the Deaf population is particularly commendable in all stages of Darrow’s study, which reflects a significant effort to eradicate the sensory interference from the findings. A pre-selected questionnaire reduces cultural practises and individual opinions to numbers without any further explanation as to why the numerical associations which occur. Qualitative studies in this field can indicate more opportunities and thereby respect the distinction between individuals in the deaf community. If the music belongs to all hearing as well as deaf cultures, its meaning is not equal to that of and beyond those cultures

(Darrow, 1993; Hagedorn, 1994). Therefore, to deliver music to students with hearing disability, professors should be conscious that, because of cultural distinctions, the beliefs and desires which those students carry into the classroom can be somewhat different to those of their peers (Hagedorn, 1994). While there are a wide spectrum of views, the majority of Darrow's students (1993) thought that music instruction should be open to all students with hearing impairments but not as a required subject.

## 2 Literature Review

### 2.1 Equal Educational Opportunities and Mainstreaming

An 1848 article written by Turner and Bartlett (cited in Darrow & Heller in 1985) provides one of the first known justifications for music education for students with disabilities, which stemmed from a successful studies of the piano by a deaf girl. It says that music can bring pleasure by its rhythmic features that can be sensed by sight and sound, as well as by the sense of nerve vibrations. Intellectual "gratification" and "community" (p. 278) were also cited as advantages that are available to the hearing impairment through learning music. In the same year J.A accepted this argument further. Ayres, (cited in the 1985 edition of Darrow & Heller) who regarded music as a key subject for hearing impaired education. In the US, the Education of All Handicapped Children Act, Public Law (PL) 42-142, recognised officially the right of hearing impairments to freedom, including access to music education. This legislation also led to a significant increase in the number of children with hearing impairments in ordinary schools (Gilbert & Asmus, 1981). There are the Disability Discrimination Act (DDA) as well as DDA standards of

education under the rule on equal opportunity for students with disabilities. in Australia. Despite these rules, the Australian Board's Deafness Forum suggests that significant inequality in hearing impaired children still remains (Deafness Forum of Australia Board, 2006). A research on the state of mainstream music instruction for hearing impaired students further examines the issue of continued violence against hearing impaired children (Darrow & Gfeller, 1991). This study explored mainstreaming in a quantitative questionnaire from the point of view of the school music teacher. Although the majority of students afflicted by hearing impairments used both sign and voice to communicate, just 19% of teachers understood simple sign language and interpreters were used by only 42% (Darrow & Gfeller, 1991). Such figures revealed that more than 15 years after PL 42-142 many of the music classroom's basic communication requirements were not addressed. The study of Darrow and Gfeller (1991) showed that the majority of students with hearing difficulties attended their school's daily music lessons. 47 percent of the schools surveyed said that there were no self-sufficient music courses, but mainstreaming was not feasible, with 23 percent of students seeking music education with an impairment in the ears. There were no substitute services. In certain cases, music was a choice that was not selected to fulfil the ancient condition of the courses by students with hearing impairments. Other considerations include content access, lack of suitable content and time-consuming programming. The study music teachers have indicated that their supervisors did not get help, and that the individual education scheme (IEP) or the required student positioning class were barely consulted. The supply of required knowledge and data to teachers has been related to optimistic personality improvements and good practise in mainstreaming (Gilbert & Asmus, 1981). However Gfeller, Darrow and Hedden (as quoted by Darrow &

Gfeller, 1991) concluded in the opinion of teachers that, because of the decline, and a lack of expertise and familiarity with these subjects, subjects with hearing impairment disabilities are among the 'difficult special groups who are mainstreaming into the music classroom' (p. 24). In specific, music educators suggested that they needed knowledge about the disability, acquisition of abilities and effective design and assessment of music programmes (Darrow & Gfeller, 1991; Gilbert & Asmus, 1981).

Darrow and Gfeller, from 1996 on, recognise specific developmental priorities as essential considerations for the effective incorporation of hearing impaired students into the music community, the required instruction for music teachers and curriculum service. Darrow (1993) also mentions the significance of cultural identity in the performance of popular musical encounters. Hearing conditions were much less likely to accept music than someone who associated with the hearing community than those who associated with the Deaf culture (Darrow, 1993).

## 2.2 Perceptual Abilities of Deaf Children

Aside from the mainstreaming of deaf children in the music classroom, general perceptiveness for deaf students has become a significant subject of the literature on music education. In order to determine which facets of music are suitable and beyond Deaf student's abilities, both rhythmic and tonal ability levels have been assessed.

## 2.3 Rhythm Perception

Rhythm is long recognised as the musical element most available to the deaf, with segregation against the sound time (Darrow, 1990a). Darrow (1984) used a Rhythmic Reaction Test to equate children with good hearing with the rhythmic response rate of the hearing impaired.

While students with hearing impairments sketched the preservation of a constant blow and responses to metric accents marginally higher than their auditory peers, children typically received better rhythmic ratings. There were no distinct rhythmic curves (Darrow, 1984), indicating that while an impaired hearing prevents a child's development of rhythmic ability, it does not hinder their development entirely (Darrow, 1987a). Whereas the degree of hearing loss impaired basic rhythmic capacities such as identification of tempo variation, repetition of rhythm patterns and preservation of rhythmic ostinate, only the general rhythm experience of the deaf was influenced by the degree of hearing loss (Darrow, 1984).

## 2.4 Tonal Perception

While rhythmic sensitivities in hearing-impaired individuals are typically higher than tonal senses (Darrow, 1987a; Gfeller, 1992), their music education should not mean that they do not have opportunities to learn and enhance tone perception. For children with hearing impairments Ford (1988) recommends a comprehensive music education, demonstrating that hearing loss alone is not adequate to assess pitch discrimination. While the hearing score of the subject 250 Hertz (Hz) was a reasonable estimate, the pitch discrimination ratings of the students were not adequate on its own. Furthermore, the findings indicate that formal musical environments that facilitate active learning rather than just listening to music are needed in order to increase pitch discrimination. While there are fairly obscure findings in studies on pitch discrimination, Gengel's 1969 study (cited at Boothroyd, 1980) indicates that children with medium to serious hearing defects may discriminate against a minimum of 5 percent at 500 Hz with pitch discrimination instruction. While pitch changes can be discriminated against by children with average hearing ability with 0.8%,

the semi-ton only constitutes a shift of 6% in frequency (Boothroid 1980). Thus, many people with hearing disability can access most melodic knowledge, at least in western music. Darrow (1990a) found that responsiveness could be further enhanced by ensuring that the level of auditory stimulation provided in the children's audiogram areas remains within acceptable range. The broad spectrum of music aims to make it more accessible than conversational expression for the hearing impaired. The piano varies from 27.5 to 4,186 Hz (Darrow, 1990b) while natural speech takes place at 500-2000 Hz. The vibrational interface partner of Somasonic, Inc. has presented encouraging evidence on the effective contact of pitch stimulants and their ability to perceive this information (Darrow, 1992). Somasonic, Inc. Children aged 8 to 11 years, with moderate to extreme hearing loss, were asked to describe aurally, vibro-acoustically and without pitch adjustments. The intervals used were an octave, fifth exactly and a fantastic seventh, both up and down. By using vibrotactile stimulation to complement the aural stimulus, the pitch shift was significantly observed. This indicates that music training for hearing impaired individuals should not only learn rhythmical ability, but should also explore the way the other senses can be used, with the help of technology, for obtaining and transmitting pitch information.

## 2.5 Significance of the Study

Although it is only in the past 30 years that strict research was undertaken in this area, the factors behind the offering of a music education to the Deaf were known since at least 1848 (Darrow & Heller, 1985). This research focused on what musical elements Deaf children could interpret through abstract rhythm and pitch experiments. Ses storeys also assume that

the degree of surdicality alone is not sufficient to predict the musical abilities of a pupil. The present study aims to augment current literature by presenting a mainly qualitative perspective in an area dominated by quantitative research. It draws on Darrow's studies (1993) to explore encounters with music for Deaf students and thus helps to establish a new field of study. In this area, the great majority of literature also focuses on the study of the features of the American Deaf. Although many literature findings can be translated, this subject's cultural and individual context focuses on the research of members of the Australian Deaf community in Australia. The study seeks to address the profession by looking at a current school music programme, and how children who are interested choose to have music in their lives, in order to provide the profession with knowledge on the correct development of music programmes. The study examines an aspect of music education for Deaf children and their ties to the music of students outside the classroom. The research thus gives educators in music methods that understand the physical and cultural needs of both students and educate them Deaf people in their own contexts.

## 2.6 Research Methodology

In this study, a qualitative approach has been taken to explore Deaf students' musical engagement. The qualitative paradigm recognises the importance of subjectivity in the understanding of human behaviour and context (Cohen & Manion 1994). The assumption that there are 'multiple realities' in every social situation (Burns, 2000, p. 12) which, through evaluation and meaning, are actively constructed by individuals to social reality (Burns, 2000). Qualitative research aims, by studying its words and actions, to unlock participants' experience and under-

standing of social reality in their original context (Maykut & Morehouse, 1994). In qualitative research the perspective of the researcher is also recognised, recognising that the researcher's mere presence is sufficient to alter the research environment considerably (Burns 2000). Initially, this study was based on a questionnaire to identify certain themes related to Deaf student music training (Cohen & Manion, 1994). The results were then used to study the musical experience of Deaf students from several perspectives through observations, interviews, and analyses of documents (Burns 2000).

## 2.7 Methodological Design

The experimental framework for this project was used as a case study. Bounded unit (a case) is a topic in case studies and is generally used in in-depth analysis for descriptive elements (Burns, 2000; Cohen & Manion, 94). The case study complements this research's exploratory nature by focusing on conclusions and procedures instead of reports (Burns, 2000). This research does not consist of individuals, but is special and worthwhile by itself (Burns, 2000; Cohen & Manion, 1994).

## 2.8 Case Selection and Description

Purposive sampling, the most common method for case studies (Burns, 2000), was used to select participants from the individual individual interviewees at each stage of this sample. Cases and samples that provide a deeper insight into the studied phenomenon but are not generally representative of the population are used to pick purposive sampling (Burns, 2000).

My situation was a school for the Deaf with a close partnership between the Deaf and the Deaf communities. A comprehensive curriculum of music, regular classes, band rehearsals and presentations, also took place at the academy. The presence

of such a music curriculum shows that music in schools is highly respected. It is important to note, though, that the degree and the explanations for the significance may be somewhat different from those of the viewer. Four study classes, the Junior primary (ages 6-7); Senior primary (ages 8-12); Year 8 (ages 14-15) and the Transition 1 (aged 17-18), were selected for purposeful sampling. Students in these classes have enrolled in the curriculum in music at school or were already active by schedule courses. Because of the specialist nature of the school, with 22 students, each class in the study was quite small. The school music curriculum, which includes the possibility of students playing instruments, writing music, learning about musical history, popular musicians, and reading traditional Western music, is close to the music programmes for listening pupils. Depending on the age of the pupils, students from kindergarten to year 8 are sent to music lessons once weekly between 30 minutes and 60 minutes. The students will also join the school's Year 3 chorus. The signing choir has a regular opportunity to perform in locations such as the Sydney Opera House and Star City Casino, and the Seymour Center, from the welcoming of visitors to the school to birthdays and weddings within the Deaf college as well as for the public.

## 2.9 Data Collection Methods

A variety of methods used to collect data were used to explore the musical lives of these individuals. The students, their parents and their teachers took this opportunity to gather information on their artistic activities, education and culture in a questionnaire, insights, reviews and reports.

## 2.10 Questionnaire

One of the most common techniques for the processing of self-reportable information such as human experiences and opin-

ions used by researchers is the questionnaire (Mackey & Gass, 2005). The original form of data collection was the questionnaire in this analysis. In this study, the four questionnaires returned were used, typically connected with the quantitative analysis, to provide initial data that provided information for the eventual data collection and recruit parents for interviews. It focused on research from the point of view of parents and researched how their children interpret music as used by their peers, how the music in their families is used and their own behaviours.

Questionnaires were distributed to the parents of the students taking part in the music programme and anonymous participants performed by themselves (Burns, 2000). They were sent to the school. In fact, the questionnaire (see Annex A) consisted of closed objects, height items and opened items. This made it quickly and easily possible to complete simple questions, while still allowing interesting and unpredictable answers to be obtained (Burns, 2000). In the questionnaire, parents were asked to demonstrate their preparation by recording their names for this reason in later interviews. The data gathered from closed and scale items were used to summarise the viewpoints of each parent and to provide essential demographic information. The opened objects have been evaluated using axial and selective coding (Strauss & Corbin 1990) in order to determine subjects which would concentrate on the findings.

### 3 Observations

This assessment enables the researcher to collect evidence without the need for the subject to express his or her attitudes or emotions (Burns, 2000), which is at the centre of every case study and encourages researchers to examine actions in their natural environments. That is why impressions were an important part of this study because I did not share a lan-

guage with the students. Timetable music lessons and group rehearsals were reported on, with guidance, questions and comments provided in Auslan in the English language by the classroom instructor. The comments were documented in field notes, which focused primarily on my own viewpoint on each of the research questions. In the first set of observations, as recorded in Table 1, my position was as an observer member. In order to gain an understanding from insiders about its location and experiences in it I had to engage in the classroom activities in the same fashion as the students (Burns, 2000). At first, I thought that, given the age and cultural disparity between the participants and me, this function would not be acceptable. However, the music teacher encouraged participation in the music classes, because it was more common to participate than to sit down and build a relationship of trust with the students. My function in the research setting of the second set was to track, observe and record events without any contact with participants for the second set of observations recorded in Table 2 (Burns, 2000). Although an observer can't avoid taking part in social interactions and manipulating them, the role of a non-participating observer helps me to step back from the action and look at things which may not be obvious from participating directly. This collected data from the findings from two additional points of view.

Overspread over seven days in Term Two and Term Three, twelve sessions were recorded. I have been able to discuss new topics or holes in the original study in a second series of findings (Strauss & Corbin, 90).

#### 3.1 Interviews

15 students, three professors, four parents and the school speech therapist conducted interviews to ensure the selection of multiple perspectives. The interviews



were primarily used to examine the experiences, opinions and motivations of the participants in depth. In the study, all of the interviews were semi-structured. This format enables the interviews to reflect on the key questions of the study, without pressuring the participants into their opinion. The semi-structured interview is therefore more likely than the researcher to ensure that the experience of the subject is recensed and evaluated (Burns, 2000). Interviews typically involve the collection by “direct verbal interaction” of data pertaining to the research questions between the researcher and one or more participants (Cohen & Manion, 1994). However, for interviews with members of the Deaf community, there was a very different approach since I can’t communicate in the sign language. This modified approach involves interviews by an interpreter with Deaf students and parents. A Auslan interpreter was booked for interviews with student participants in consultation with the school. The best option available for face-to - face interviewing an interviewer was that Deaf students tend to have grown linguistically impaired (Gfeller & Baumann 1988). Each group was interviewed with Year 8 and Transition lessons, providing a general examination of student uses and attitudes towards music. Three Senior Primary Students and two Year 8 students were also interviewed individually, allowing students to further discuss the answers. Due to the difficulties of obtaining parental consent for video recordings from these students, I could not interview students from the junior primary school. The specifics of the interviews with participants are given in Table 3. Students were interviewed for their musical preferences and favourites, both inside and outside school. All interviews were video recorded, the sign language used, including gestures related to specific songs for further reference if there are any dialect differences; face expressions and other body language. The use of video capture alone therefore assures a

fair portrayal of the Deaf student in the recorded data (Harr, 2001).

### 3.2 Triangulation

The holistic interpretation of dynamic phenomena is also used with triangulation (Cohen and Manion 1994). It understands the difficulty of social environments by combining and using various strategies. Methods triangulation (Cohen & Manion, 1994) is done by various methods of data collecting along with a sample questionnaire , interviews, observations and record compilation (Cohen & Manion, 1994). (Cohen & Manion) Method triangulation was accomplished by using of data collection tool from different sources to answer of study query in a number of ways (Cohen & Manion, 1994).

### 3.3 Data Analysis Procedures

In order to establish a concrete theory (Strauss & Corbin 1990), the qualitative evidence from the questionnaire, findings, interviews and records were analysed using transparent, axial, and selective coding techniques. Open coding involves the identification and description of phenomena by means of a detailed analysis of data (Ezzy, 2002). Axial Coding reorganises the open-ended coding fragments in categories and determines their historical , political, functional and substantive aspects (Ezzy, 2002) and ties the category to the sub categories (Strauss & Corbin, 1990). The participants’ concerns and desires must remain central to constructing these dimensions so that they can embody the context of the participants (Strauss & Corbin, 1990). The ‘heart category’ (Strauss & Corbin 1990 , p. 116) and the association between the principal categories and a heart category are defined by selective coding. In this research, the philosophy of music involved introducing the students to the sessions and viewpoints

from each participant's diverse perspectives was based. Coding is not always linear; it is considered usually complete if no new codes or categories appear and all the knowledge obtained is used by means of existing categories in the fundamental definition (Ezzy, 2002). The essence of the methodology promotes the analytical character of the research, which represents the experiences of the participants' diverse viewpoints and positions to the entire phenomena.

This analytical methods provide a rich case description. The strategies don't promote generalisation beyond the particular case study, but instead rely on explaining the case as detailedly as possible from many angles, allowing it to make parallels for the reader (Stake, 2000). Thus, the research approaches respect the particular essence of the situation and the values of the group.

### 3.4 Research Considerations

Linguistic and cultural consequences have been addressed by participation of Deaf participants in the research process (Harr, 2001). In the form of effective study and Engagement procedures for Deaf members of societies in particular on the proper usage of language and cultural etiquette, the school staff and study co-ordinator at the Shepherd Center (another educational facility that serves additional impairment students) is contacted. In the interview context, the cultural protocol was most important to the actions that an interpreter could use. The topic is primarily discussed and answered to the Deaf person, so that the translator is not dependent on the interview (Harr, 2001). Other considerations include eliminating my own movements and actions that are easily intrusive and making sure, because of Auslan's visual existence, either the Deaf person or the actor is not hidden behind them by the sun. - query was

given extra time to allow participants to analyse the explanation prior to answering. The atmosphere of the interview also raises questions about differential power distribution. I tried to make it easier for the translator to be used to communicating with the participants. However, together with the large demand for their services, the limited number of interpreters discouraged the use of established interpreters. Instead, time for participants and interpreters to become acquainted, including familiarity with the signing style of each person, was allotted at the beginning of each interview. Although school administrators checked the questions from the interview, the initial form and nature of the interview questions may have changed in the course of analysis, which could have further led to the development of unjust power ties (Harr, 2001). Sadly, the viewpoint of the deaf student is often not in the literature because of the reasons mentioned above. However, these students are entitled to make their own views match their lives and experiences (Harr, 2001). In the following chapter you can find the findings of my review of the musical engagement and perspectives of these deaf students.

### 3.5 Research Findings

The common belief is that deaf people can't understand or engage in music and, therefore, music should or should not be a part of their lives in all Deaf and hearing communities (Padden & Humphries 2005). The results of this study however have shown that Deaf children are often interested in music in schools as well as elsewhere, although the degree of music involvement differs considerably among children. In this portion, the findings of the case study that explores the musical involvement of deaf students in the family, school and society were specifically included in the learned and listener perspectives. However, since this analysis reflects on the curriculum for school music and

has been considered essential to students' musical activities. The school's musical curriculum was established over the past 15 years by a music expert in which time, in accordance with the present deputy head's description: On the television, with CODA [Deaf Adult Child], we had children and relatives, including hearing people. The children who knew or listened correctly and actually used hearing aids at that time crossed the path to [another school] and played music. And "the Deaf people, or the songs of girls, didn't play anymore. And in fact, that changed.

The music teacher, Rosemary, taught before and only until she gave way to her daughter, urged students to teach Deaf. As a relief lecturer, she learned that students obtained no musical instruction and taught them in kindergarten / year 1 units on their own once monthly. In 1996 the school was registered with the NSW Studies Commission which required the students to complete the same musical units as its members of the community, among others, thus creating a current position for Rosemary as a professor of music. This is Rosemary's job in the CV of Creative Arts and Education, since education is rarely employed by school teachers, to fulfil the musical requirements for any kindergarten student up to the age of 8. The music lessons are conducted in a concert hall where half the floor is wood, so that the students may be able to perceive more clearly the sounds of the music. Rhythm and skill shape the base of a music curriculum in order to encourage rhythmic literature which is the most accessible musical component for the deaf (Darrow, 1990a). The professor of music aims, through the Music Curriculum, to develop rhythmic skills for such social purposes:

Learning basic patterns and patterns so that you can feel a musical scenario as you come to life. (Interview)

Although the work of students in their

general classroom or their music classes is often not linked directly with each other, Rosemary attempts, through the understanding of English songs and mathematics through their clarification of harmony, to establish competences that are easily transferred into other areas, such as ball skills and coordinated rhythm, literary competences

"I think it's awesome," he continues. "I think it is a brilliant idea for the deaf children who enjoy music. It's an outstanding opportunity for them. Offer it a chance to discover if it is yours. I suppose that it's" excellent and enjoyable. Maybe some of the kids don't join, but it's a fun way to see what music is like. (Interview)

The musical practises in the school are guided, performed and encouraged in the home and communities of those types of musical activity.

### 3.6 Performing

Only signing choruses have addressed their presence in the present literature surrounding the musical experiences of Deaf students (Darrow, 1987b; Knapp, 1980). In this situation, however, students demonstrate music both formally and informally with the use of gestures, movement to song, instruments and vocalism. As mentioned by a school music director, the bulk of these resources and events are presented by the school music Program:

It was my understanding that not one of these students had any home music experience. When they go to school, their first music exposure comes. "They're mute," many of their relatives say. What's the point of music? (Interview) This music programme has a strong focus on success, which fulfils a variety of goals, including encouraging students by personal engagement to become actively

interested in music and giving them faith that they can engage in home and group musical experiences.

### 3.7 Sign Singing

The singing involve the translation and interpretation of the meaning of a song into sign language. The signing chorus is the most noticeable component of the music curriculum of the school and it means that sign shouting is a musical practise for the most students in classrooms. This volunteer parasecular ensemble plays both in the general community and at various school events , making it the primary focus of the music department. In specific Rosemary 's passion for the practise can be attributed to the fact that it considers it as the most gratifying element of the music programme:

Any time the students play, most people cry with excitement so that you don't get better. (Interview)

Many students , teachers and parents give considerable encouragement to the Chorus programme over the course of time, including two scheduling rehearsals a week, and presentations within and beyond school hours. While he was interested in performing music for such a long time, he was called as his favourite musical practise only one student a boy in the Senior Primary school.

I love the course and I love to join. I enjoy it so much. I like singing sign. I love singing sign. (Interview)

The degree to which Deaf actors and the audience can react to the music, however, rather depends on the lyric material, which must be visualised to indicate the expression .. A parent embraced this approach:

I don't believe that with all songs you should [sign chant].

You want to show a visual picture while you sign singing. "To see Deaf person it has to mean something, you know? You know? You need some kind of sense to create a photo in your head, maybe. (interview)

The choosing of the original song may therefore have made the students enjoy the songs they performed. In order to include the translation of an album, the school's signing chorus expanded this phase beyond song selection. Any song contains age-specific translations designed to increase the importance of the album. While the translations are not the best, good sign singing requires students, by their gesture, facial expressions and the language of the music, to successfully relay the message to their audiences. To do this, students first need to understand the message, improve their connexion to the music. The practise in the choir is aimed at achieving uniformity of movement after this initial translation process. The driver works with the students to develop the lateral view and measure the speed and height of the signs that the people next to them are constructing.

You may have the sopranos and altos with other choirs, and so on. "Did I correctly pitch my note?" The chorus will use the visual vision. "I've put the right height of my neck" or "Am I going the right way?"(interview)

Everyone has to make their signs contrary of what they say, much as they do in their daily chats, and even this easy copying process is incredibly complicated. However, when the promoter or conductor is absent, in particular when the presentation room includes several other visual impulses, the sign singing takes on an entirely different level, as shown by a transfer student:

When we sign music, it is better to be led by others. I did not duplicate anybody at the 2000 Paralympics, I didn't at all promote, I didn't forget. You see, in our heads, there were brilliant white lights, and foggy dullness. You know, it was just so adorable though and a nice memory, it was squeezing across our bodies and wow. I didn't have anyone to remind me, nobody to copy. None to help. Nothing to help. But I also had to be careful to be sure I was still singing in time with the people around me. It was a great challenge and, I think, a great shock. (interview)

### 3.8 Listening to Music

The listening to music for Deavy students does not include being solely an auditory practise, as is common of listening students in the music classroom. The students rely on sound and through their sense of hearing or touch. In the music classroom visual means of sound participation are also used. The following section discusses a variety of methods and answers for this strategy.

### 3.9 Fascination with Sound

Since the music programme is usually the students' first conscious experience of sound, Rosemary begins by teaching the students what sound is, how it is created, and how their bodies receive its signals. Rosemary identified this part of the music programme, making the students aware of music and beat, as her greatest challenge. However, she suggests that it is through these initial experiences that link sound production with the visual and tactile, that the students develop a fascination for sound:

I don't think they are particularly curious about sound until they start to do music, where they can actually see the results of a vibrating . . . drum skin . . . . That's when they were understanding this thing I'm feeling in my feet, is coming from that drum. (Interview)

A variety of techniques are used to demonstrate the connection between the sound production and the resulting physical stimulation. These techniques include placing small pieces of coloured paper both on the drum and on the floor next to it, and blowing up a balloon to build an understanding of sound through its visual and kinaesthetic elements. A similar approach is also used during the students' speech therapy sessions, with dynamics conveyed through the intensity of the breathing, and pitch portrayed through accompanying rising and falling body movements. Once the link between sound production and sensory identification has been understood, the music programme then focuses on the ways students will need to interpret music in everyday life. Since the majority of students are most likely to come into contact with music on a daily basis through the use of captioning on television or video media, music classes focus on the correct interpretation of captioning vocabulary, with a particular emphasis on musical terminology. In order to understand the way the music contributes to the message provided by the visuals, the students must have some understanding of terms such as "light, loud, soft, and bright" and in what context they are likely to occur, examples of which were given by a Year 8 student:

Romance has light music, when there's danger the music gets loud, and when it's sad, there's soft melancholy music. (Interview)

Although this statement does not

demonstrate any deep musical understanding, it does indicate an understanding of the links between styles of music and mood, and ways in which the music works with the visual to create meaning. However, the musical realisation of the terminology used in captioning might be different for Deaf and hearing students. A typical example is the use of the word "loud" which Deaf individuals interpret as stronger vibrations, which can be achieved through both dynamic level and the use of lower frequencies (Padden & Humphries, 1988). A curiosity about sound on the part of Deaf children was mentioned by each of the hearing parents and teachers who were interviewed. Typically, this curiosity was displayed through children questioning their parents while they were watching television programs or movies with a high degree of both visual and musical content. Often curiosity was initiated by the displayed captions, and questions would relate not only to the music described, but also other sounds such as explosions which had accompanying images. However, it seems that music, beyond these occasional discussions, is not a typical topic of conversation for these Deaf students. If it is discussed, the comments usually refer to the musician rather than to the music itself. For Freya, it is this "who's who" musical knowledge that she values most for her son because she wants him to be able to understand the references made to these musicians in popular culture.

I think that's really important for teenagers, cause I mean that's a large part of their life, is talking about 50 Cent or Snoop Dogg . . . . For Scott I want him to know who they are, because he sees them on T-shirts and obviously kids are gonna talk about it, so even though he doesn't hear the music, it's good for him to know who

they are, . . . . to see who those major players are, I suppose, for his age group. (Interview)

## 4 CONCLUSION

The purpose of this research was to investigate how deaf children participate in music in diverse ways. It explored the musical interests of the students and promoted musical practises from the viewpoint of students and their parents and teachers. The research explored how the physical and cultural needs of those students would excel in engaging in the music classroom with the emphasis on a education curriculum for deaf students. The student's musical engagement of deaf students aged 6 to 18 was investigated through a comprehensive case study framework. The students all attended a school that teaches in the language of the signs. An summary of the musical experiences of these students was generated by using numerous qualitative data collection methods, including surveys , interviews, findings from classrooms and record compilation by participants and non-participants. This research gives an early glimpse into how deaf students participate in music. Every student had beyond his or her compulsory music lessons a great deal of different degree of engagement and indicated that music had a place within the community of these Deaf students. The research showed that students interact with music by conducting and listening at classes, at home and in the neighbourhood. In the lives of deaf children and teenagers, related studies in various contexts may illumine more aspect of music.

As musicians, the students participate in songs , dances and gestures towards music, instrumentation and vocalisation. The signing choir was one of them, but students seldom referred to it as a favourite practise, contrary to

the findings in Darrow's (1993) study , which showed that sign singing is the most common musical practise among the Deafe, and the students had the most frequent and varied performance opportunities. However, choral repertoire songs have also been identified as classics by the students, suggesting that success is an important part of the musical interest of their students and that this practise is an experience that they love. Sign chanting may also be a valuable method for supplying students with an overall introduction to music that would otherwise be difficult to cope with. The Choir was also paid for its extra-musical advantages by the pupils, staff , and parents. In fact, the Choir was capable of expressing deaf identity to the listening world and giving students the opportunity to grow into the Deaf Community. In the academy, the teacher of music used travelling interactions to improve the students' inner senses of beat, peripheral vision for the choral and master rhythms until they could be translated to instruments. But the transition to music was a much smaller experience for the students, with most students referring to dance as an impulse rather than a competitor. The Deaf students defined play instruments as their favourite performance practise in this case study , indicating that this practise should be used frequently in musical classes particularly as a motivator for further action. Drums and guitar were the most common instruments, which are very powerful in their ability to communicate music to the student instrumentalists and their audience visually and kinesthetically. The play of musical instruments often acted as an significant connexion between the musical experience of students at school and at home, and also inspired students to study in the classroom and use it at home. Although the transfer of knowledge is meant for all students ' education, it is especially important for deaf students who may be reluctant, due to the family's prejudices or their own lack

of confidence, to engage in music outside of school. The evidence shows that school events that explicitly inspire pupils to participate in music at home and in the community is interpreted as an encouragement for the students to actively search for these music experiences in the future. While singing in her curriculum documents has been described as a "unappropriate" musical activity and "not in its capacity" as a formal performance tool, it has been observed that students use spontaneous vocalisation as an expression of musical joy. In fact, Junior primary students vocalise regularly just before and after music lessons. But vocalisation among older students was less common, perhaps because students didn't have their voices too relaxed. This reflects the discovery of Darrow amongst deaf adults in 1993 and its associated music advice to encourage students to gain trust in their voices. The relative success of those programmes would be helpful in further research into the vocalisation of deaf students at different stages of development within another school context.

Hearing people also believe that the deaf live in a soundless environment. However, the vibration, as articulated by Padden and Humphries (1988), can be interpreted in several forms when describing the vibration as a "important structure through variance in the physical world" (p. 92). In this study, the majority of the students explored their musical tastes and followed a simple concept of listening, closely similar to the listening that Padden and Humphries offer. Although sound is often present in regards to its musical interests, students have listed gestures and visual features more often than auditory signals as explanations of their interests. These findings provide an extra dimension to the literature regarding the perceptive abilities of the Deaf in the current musical education. These findings suggest that while a student's hearing loss degree will hinder the production of certain rhythmic competencies, restricting

his capacity to distinguish between pitch changes, the hearing loss alone is not adequate to assess the musical ability of a student (Darrow, 1984; 1987a; Gfeller, 1992). The students' analysis of musical terms also has important repercussions for this comprehension of the note. While Deaf students use the language of the hearing community in their explanations of music to explain musical transactions, this can be done very differently by the Deaf. Again, these circumstances also demand a wider comprehension of the manner in which deaf students perceive music than is normal to hearers, particularly the teachers of music. Music instructors need to expand their knowledge of music and of the many various forms it may be perceived and make it easier for Deaf children and react to and achieve progress in music events. By using a multi-sensory listening technique, the Deaf perception of music can be understood as culturally distinct, but also true. Additional studies into how deaf people perceive music can give useful insights into their experiences of music that, in turn, can help to improve music services more responsively based on those experiences.

In this case study, the school music programme was recognised as an important addition to the Deaf's musical experience. This is done primarily by providing performance opportunities and an increased connexion to music not apparent in other settings. While there were records of musical involvement in home and community, the encounters in the music classes or in the signing chorus also culminated. This puts the music teacher in a highly responsible and powerful position. Students have to experience success in music first and most critically. The literature continues to classify rhythmic practises as the environment in which Deaf students hit the highest degree (Darrow, 1990a) and this was definitely a key point of reference in the approach taken by the music professor in this research. Furthermore, the results of this study show

that pitch behaviours must not be omitted. Pitching information, however, is to be introduced, experienced and not based on auditory through primarily visual and kinesthetic stimuli.

The way Deaf students were found to interact in music shows that music has a role in Deaf culture. Although music is often viewed as a term that, at best, deaf people can only partly comprehend, the results of this study indicate that perhaps in their experience it is the audience who understands music incompletely. Whereas the audience appears to understand only the audible elements of music, particularly in the classroom of music, the learned musical experience of the Deaf community remembers the visual and kinesthetic elements often contribute to musical access and enjoyment.

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