CHAPTER ONE: THE PRELUDE

1.1. Introduction

Before stating more precisely the research problem of this study, it is necessary to give a description of the background concerning absolute pitch (AP) which is an ability to identify tones without references (Zatorre et al, 1998; Ward, 1999).

The Hong Kong Music Home for Handicapped Normal Talented Children Limited (MusH) was founded by the researcher on 4th April, 1992. The Lau Chiu Kay Music Educatherapy for the Special Educational Needs, Mainstreamed and Talented (LCK MusET) was formulated and practised there. At that time, there were about 30 students, including special educational needs (SEN), mainstreamed (MS) and academically talented (AT) children. The age range was from two to 16. One of the purposes of their enrolment was to learn to play the piano. The researcher was the only piano instructor. In order to develop AP for students and help them to learn the piano faster, an absolute solfège system was designed. The pianos at MusH and the students' homes were tuned to A=440Hz (A440). As the teaching moved on, the researcher noticed that students identified piano keys from pitches rather than positions. They always played back music from memory. They could identify single tones. It seemed that they were developing AP. Their progress in playing the piano was rapid too. From 1st to 14th July 1992, the researcher conducted a simple AP test with all students except new ones. When he struck piano keys randomly, students could name the sol-fah and octave names with certainly and immediately without any referential tones or cues. This test suggested to the researcher that everyone can develop AP and AP may be an innate potential to all.

Ever since MusH has been established, an educational and therapeutic method called "Lau Chiu Kay Educatherapy for the Special Educational Needs, Mainstreamed, and Talented" (LCK ET) has been practised to students who took the Integrated Potential Training. This course involves training in intelligence, thinking, memory, reasoning, coordination, language, mathematics, communicative and social skills. LCK MusET is

presented to students who took the piano and music courses. These courses include piano playing, educational instruments playing, sight-reading, singing, sight-singing, music listening, composition, conducting, theory, piano examination preparation, music therapeutic activities and integrative auditory training. The acquisition of AP is a part of the music educatherapeutic programme. The absolute solfège is widely practised in all music activities. It becomes a medium of singing and naming tones.

1.2. Music Home

MusH is a private music institute with a retailing store that is s run on a low profit basis in Hong Kong. Its premises are 2000 square feet large. There are six small rooms for individual lessons, which are each around seven by eight feet large. They are all soundproof. Every room is installed with a new Yamaha C108 upright piano, a teacher's desk, an air conditioner, and two neon lights. There is one big room for group activities. It is 19 feet by 22 feet large. In addition to the basic facilities of air conditioning and lighting, it is equipped with a new Yamaha C2 grand piano, five new Yamaha C108 upright pianos and one digital piano.

There is no limitation for the admittance of students, including age, gender, intelligence and abilities. Students are admitted from the age of "just born". Students of different aptitude are also admitted, including the academically talented (AT), mainstreamed (MS) and special educational needs students (SEN) of different types and degrees. There is no screening in the admissions process. In the admittance interview, an assessment on the general ability, general music ability and AP is conducted. The student's school, intelligence, medical, psychological, optical, audiometric and social reports are filed if available. In this interview, the general and music abilities of students are identified and the programme is tailored individually.

All students come after school or after work. They are taught individually. An individual session can be half-an hour, an-hour, an hour and a half, or two hours each. It can be held once or twice per week, or once in every fortnight, three weeks or a month. The schedule

depends on the necessity, student's attention and progress, and parent's will and budget. In addition to the individual lessons, students are encouraged to attend one to three group courses. These are held once per week, once per fortnight or once per month, depending on the nature of the course.

At the time of this investigation there were a total of 173 students at MusH, comprising three AT, 110 MS and 41 SEN at the commencement on the research. They ranged from two to 25 years old. See Table 1.2.1.

Table 1.2.1: Total Number of Students at MusH

Educational Category		Number	Total
AT		3	3
MS		110	110
Special educational Need	Mild MR	1	41
	Autistic	14	
	EBD	6	
	SD	4	
	LD	7	
	SID	4	
	Moderate HI	3	
	Severe HI	1	
	Asthma	1	
Not Piano Students (SEN)		19	19
Overall Totals		173	173

1.3. Educational Programmes

In individual lessons for non-piano students who are mainly the SEN, Integrative Potential Training is offered. It includes music educatherapeutic activities, intelligence training, thinking, attention, memory, coordination, communicative skills, behaviour and emotion management, social skills, Chinese language, English language and mathematics. In the individual lessons, piano performance students are able to take the Piano Performance only, or the Piano Performance plus the Integrated Potential Training. In addition to playing the piano, piano students are able to take group courses which include sight-reading, singing, sight-singing, composition, conducting, theory, piano examination preparation and Integrative Potential Training courses.

For parents, the Group Parent Guidance sessions are held once in every three months. In the guidance, the ways of bringing up and educating children, and the ways of following up children's school and music studies are taught. Parents are able to share their opinions and ask for advice concerning every aspect of their children's development. The Individual Parent Guidance sessions are held once a month. Any parents who wish to have consultations are able to make appointments to see the researcher or Miss Lam Pui Fun, who is an educator in education and special education. In the guidance, parents' personal difficulties in bringing up and educating children can be dealt with personally.

1.4. Lau Chiu Kay Music Educatherapy

LCK MusET integrates educational and therapeutic aspects of music teaching. There is a syllabus for the piano performance from the preparatory grade to diploma levels. Each grade consists of 12 or 12 sets of piano books. The syllabus is compiled with reference to the syllabus for the piano practical examinations of the Associated Board of the Royal Schools of Music (ABRSM), Trinity College London (TCL) and the repertories of some piano competitions. Piano textbooks are accompanied with compact discs (CDs) or cassette tapes if available (see Appendix I.1, pp.288-293). In addition to the piano performance, the music programme includes aural training, AP identification (see Appendix I.7, pp.305-307), music listening, sight-reading, composition, conducting, educational instruments playing, singing, sight-singing and music theory (refer to Appendix I.3, p.299-300 for the list of textbooks in sight-reading, sight-singing, composition, conducting, aural training and music theory). It is aimed at teaching students to master these techniques at their early age. Other LCK MusET programmes include music activities in attention, memory, thinking, language, coordination, perception, communication, emotion and behaviour management, and social skills. The activities aim to raise students' general abilities through music. Extracurricular music is assigned to play as background music while students and their family members are sleeping, waking-up, studying, taking food, doing fine motor activities, playing games and

exercising prenatal training (see Appendix I.2, pp.294-298). Public performances are part of the training too. Concerts are arranged each year for students to gain experiences and establish confidence.

Parents are asked to attend the parent guidance sessions, in which the knowledge of music learning and prenatal training was conveyed in addition to the general concept of bringing up and educating children. If they understand and like music more, they will support their children more. They are encouraged to learn to play the piano and music theory, at least up to the end of the preparatory grade. They can also help their children to solve elementary problems at home. This facilitates the progress of children's learning, keeps up their interest and promotes the parent-child relationship. Parents of students aged 16 or under are encouraged to become involved in children's learning activities. They attend classes with their children and help their children at home. Most parents have only elementary knowledge in music. They may not follow what their children are playing when their children attain higher levels. They may help in some other ways, such as showing support to children, praising their achievement, showing concern about their progress, asking them to practise the piano regularly and doing aural training with them.

Parents and students are advised to buy a brand new or 90% new second-hand Yamaha upright piano (see Appendix I.12, p.314). They are also advised to have the pianos tuned by the contracted piano tuner of MusH to ensure all pianos are tuned up to A440. Pianos have to be tuned at least three times a year. They are taught how to maintain pianos in good condition (see Appendix I.13, pp.315-316). They are instructed how to buy hi-fi equipment, especially for hearing classical music (see Appendix I.14, p.317). They are guided to design an appropriate learning environment at home. In addition to designing learning corners or study rooms, they are taught about furnishing music corners with pianos, hi-fi equipment, white-boards with staves, desks and adjustable chairs. Besides books of general knowledge, children are assigned music books to read. Parents are encouraged to read these books to their young children. They are taught to devise

time-tables to develop schedules in daily lives and to fit the piano practice and music listening schedule into the time-table.

All music instructors have at least the ABRSM or TCL grade eight piano standard. When they are recruited as instructors, they are trained by the researcher to use LCK MusET. Rooms are soundproof, air conditioned and furnished with new Yamaha C108 upright or Yamaha C2 grand pianos, hi-fi equipment, sufficient lighting, desks, adjustable benches and adjustable chairs. They are all well-maintained to ensure high quality in teaching.

After practising LCK MusET at MusH for seven years, it was observed that nearly all MS, AT and SEN children possessed AP.

1.5. Statement of Problem

Even though nearly all students appear to possess AP under LCK MusET, the researcher was aware that AP is rare in the population as well as in musicians (Gregersen, 1998; Heaton et al, 1999). The occurrence of AP on such a large scale at MusH is uncommon and this prevalence has even lasted for all these years. It was felt that this phenomenon should be investigated in greater depth. AP was first identified by Stumpf in 1883. He claimed that Mozart was a musical genius who inherited AP (Weddell, 1934). Ever since Stumpf has raised the issue, the enigma of AP has not been fully understood. Many unclear aspects of AP, such as its origin, features, processing, training method and value remain unanswered (Brown, 1999; Stary, 2002), unless a method which can make everybody, at least all children acquire AP is discovered (Mull, 1925; Ward, 1999).

A method has been devised by the writer to train students to acquire AP. It was observed that children who follow LCK MusET to learn music can acquire AP to some extent. It was hoped that, through this investigation, the effectiveness of the method can be evaluated and its unclear aspects can be more fully understood.

1.6. Aims and Objectives

The aims of the study were manifold. The fundamental aim was to find out whether subjects under LCK MusET can gain AP. If they can, to investigate to what extent they

gain AP. How do they get it? What are the influencing factors? How is AP processed? What are its characteristics? How is AP useful to them? If some students cannot achieve it, why can they not?

The main objectives were to investigate the following questions: a) what activities of LCK MusET enable subjects to develop AP; b) at what level and after how long of the piano learning subjects can possess AP ; c) what factors may influence them to develop AP, such as age, sex, language background, aptitude, age of onset, tonal memory, attention, auditory sensitivity, the exposure to music, singing and thinking of absolute solfège in music activities, piano standards, the interest in the piano learning, the duration of practising the piano, piano tuning, the practice of the tonal identification, inheritance, tinnitus, and/or chromesthesia; d) how age, age of commencing piano playing, piano standards, the duration of learning and practising the piano, and the frequency of singing and using absolute solfege in music activities are related to their AP development; e) what the important characteristics of AP are (these may include encoding strategies, identification processes of note and octave designations, tonal accuracy, the white key superiority, octave errors and regional accuracy); f) what the reasons why some subjects cannot develop AP are; g) to what extent subjects find AP useful in identifying notes, playing the piano, playing the piano from memory, sight-playing, singing, sight-singing, music listening, composing, conducting and learning music theory; h) subjects' attitude to AP is positive or not; and lastly, i) why some subjects have not yet developed AP.

1.7. Significance

Since Stumpf has raised AP as a scientific issue, many uncertainties are still unanswered. AP remains a mystery (Siegel, 1974; Brown, 1999; Stary, 2002). In order to open this puzzle, a method that enables people to gain AP must be investigated. It is hoped that this study would show clear evidence that students can develop AP under LCK MusET. Of equal concern is the further insight into the factors that determine people to acquire AP successfully.