CHAPTER THREE: THE AP ACQUISITION UNDER LCK MusET

3.1. Introduction

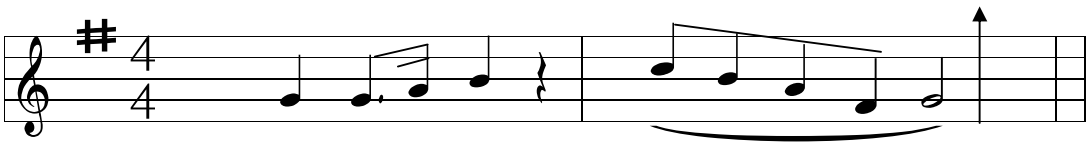
Under LCK MusET, students develop AP mainly through singing and thinking of the absolute solfège in practising the piano, sight-playing, singing, sight-singing, music listening, composition, conducting, learning music theory and preparing for piano practical examinations. As a support, parents receive music guidance in the group parent guidance and attend all students' learning sessions.

3.2. Basic Method of Singing Absolute Solfège

Under LCK MusET, there is a naming system in singing solfège, in which one note is associated with one tone with the fixed solfège. For example, the note G would be sung "sol" and D would be sung "ray" in any keys. Even though sol-fah names are common, the naming system is not universal. So, the researcher, based on the existing system, has designed a solfège naming system. This was doh-di-ray-ri-mi-fah-fi-sol-si-lah-li-ti-doh^1 (d-di-r-ri-mi-f-fi-s-si-l-li-t-d^1) corresponding to the letter names of C-C#-D-D#-E-F-F#-G-G#-A-A#-B-C^1 with the black key notes in the sharp relationship to white keys and doh^1-ti-te-lah-le-sol-se-fah-mi-me-ray-re-doh (d^1-t-te-l-le-s-se-f-m-me-r-re-d) corresponding to C^1-B-Bb-Ab-G-Gb-F-E-Eb-D-Db-C with the black key notes of a flat nature . If the notes are without sharp or flat relationships, d-di-r-me-m-f-fi-s-le-l-te-t-d^1 are used to represent the letter names of neutral relationships C-C#-D-Db-F-F#-G-Ab-A-Bb-B-C^1. The doh is fixed to C. See Appendix I.4, p.301. There are octave indications following the letter names or solfège. Take C and doh as examples. The middle C is C_o or d_o. The C an octave higher than the middle C is C^1 or d^1, two octaves higher is C^2 or d^2 and so on. Take Bb as an example. An octave lower than the middle Bb is Bb_1 or te_1, two octaves lower is Bb_2 or te_2 and so forth. Refer to Appendix I.5, p.302 for octave designations and Appendix I.6, pp.303-304 for the letter and sol-fah names with octave indications. Students are taught to identify tones with octave placements whether the tones are in the middle register, one, two, three or four octaves above or below the middle register. It was designed in this way after

examining how students approximated octaves when LCK MusET was first devised. When students sing the solfège, the notes can be too high or too low. They must lower high notes and raise low notes to their singing ranges and sing with natural voices. The basic absolute solfège singing technique in the musical content is illustrated as follows:

Example 3.2.1: To sing a musical phrase with absolute solfège



Solfège Singing: s s. l t d t l fi s

In the above example, when students practise the piano, they sing the solfège simultaneously, following the pitches and the rhythm of the notes, i.e. they sing sol when they play the first note and they sing sol again when they play the second note and so forth. This kind of solfège singing lasts for the whole music learning. They sing solfège in every piece except in some music with fast running passages. More ways of singing absolute solfège will be illustrated more specifically in the next section concerning the absolute solfège singing in piano learning.

3.3. Pitch Identification in Piano Playing

3.3.1. The piano is the only instrument formally learnt at MusH. Students acquire AP mainly through playing the piano. The piano can be comfortably sat at and played even by young children. Students can play and sing solfège at the same time. The piano can be well in tune if a competent piano tuner is employed. The piano range is the widest among all musical instruments.

3.3.2. Piano books are accompanied with CDs or cassettes if available. Otherwise, piano instructors would play the music in class by singing solfège and recording it for students, especially in the first few grades. In practising the piano, students listen to the recording of the piece and point at the score for several times. When they are familiar with the notes, they point at the score and sing solfège after the recording. If they know how to sing, they sing on their own. If they can sing the notes correctly (at least sing the solfège names

correctly in the beginning stage of learning to play the piano), they start to practise the piano. When they are practising, they have to sing the notes simultaneously. When they feel fatigue, they may sing the notes silently or think of the notes in the way as they sing. In their next piano lessons, they play the music back with singing solfège simultaneously before their piano instructors. When communicating pitches to each other, students and instructors have to sing or name solfège instead of using letter names, preferably with right pitches. In most piano method books, there are CDs or cassette tapes attached. For the books of classical music by great composers, CDs are paired by the researcher. Consult Appendix I.1, pp.288-293 for the list of CDs and cassettes in the piano syllabus. In this case, students sing solfège on their own. The solfège singing is taught in class, group sessions and in the parent guidance.

3.3.3. The piano instruction begins with black keys. As all the black keys have their own solfège, students have no difficulty to learn them before acquiring white keys. Since the black keys stand out from the white keys in the keyboard, it is easy for new learners to recognize their positions. It is intended that students can develop AP for black key tones as well as for white key tones.

In learning the black keys, the beginning lessons of the piano books in the preparatory grade by Palmer et al, Bastien, Kreader et al and Agay contain few exercises in playing all the black keys across the whole piano keyboard. When students play these pages, they sing sol-fah names for the first time and letter names for the second time. They keep singing within their voice ranges even though some pitches go beyond them. This way of singing tones enables them to get used to these two naming systems. Refer to Appendix II.2, p.319 for an example of the exercise.

After the identification of the black keys, students proceed to play and sing piano pieces with black keys and with black keys mixed with white keys (refer to Appendix II.3, p.320 as an example). Students are required not only to play and sing the piano pieces, but to play and sing the "Finger Position" as well. They play it twice, singing sol -fah names for

the first time and letter names for the second time. Refer to the Finger Positions of *Balloon Ride* in Appendix II.3, p.320 as an example. All finger positions are played in this way.

The piano books in the syllabus starting with black key pieces are: a) Palmer et al: *Alfred Basic Piano Library—Lesson Book A, Prep Course,* pp.8-15; b) Bastien: *Bastien Piano Basics—Piano (Chinese Edition), Primer Level,* pp.8-12; c) Kreader et al: *Hal Leonard Student Piano Library—Piano Lessons, Book 1,* pp.8-9, 12-20, 24-25, 28-29; and d) Agay: *Learning To Play Piano, Book 1: Primer Level,* pp.5&7.

3.3.4. Most method books for beginners start with white keys. At the beginning of learning white keys, students play and sing notes from the lowest range to the highest range in the entire piano keyboard. Refer to Appendix II.4, p.321 as an example. Students sing solfège for the first time and sing letter names for the second time. This is to help them memorize pitches as well as the location of notes in the entire piano keyboard.

After the identification of the white keys in the entire piano range, students proceed to play and sing piano pieces with white key notes. They sing solfège and letter names in the "Finger Positions" if any, but s ing only sol-fah names in piano pieces. After the piano pieces specifically designed for black keys, the pieces consist mainly of white key notes. Students have more chance to acquire white keys than black keys except in the pieces with three or more sharps and flats in the latter stage of the piano learning. But the proportion of playing white key notes is far more than playing black keys.

3.3.5. AP can be learnt through playing scales. Students need to sing all notes. Scales sometimes appeared in the contrary motion. Take the second line of *A Hard Trick* as an example (See Appendix II.5, p. 322). On the first occasion, students play the right hand part and sing the right hand notes. At the second time, they play the left hand part and sing the left hand notes. The third time, they play both parts and sing the right hand notes. In the last session, they repeat both parts and sing the left hand part. They seem to be able to notice the lower part notes more. In addition, they have to play and sing the key signature of each scale before playing and singing the scale. For example, in B major, students play

the key signature notes both hands, following the exact tonal order on the stave, i.e. F#-C#-G#-D#-A#. Students sing fi-di-si-ri-li simultaneously. This is another chance to practise the tone identification of black keys. Refer to Appendix II.6, p.323.

3.3.6. In contrapuntal music, students play and sing one voice after another before playing with both hands. Take *Bourrèe* as an example (see Appendix II.7, p.324). Students practise the first section (bars one to four) in the following ways: a) play and sing the notes of the right hand part; b) play and sing the notes of the left hand part; c) play with both hands, singing the notes of the upper part; and d) play with both hands, singing the notes of the lower part. They then play the second section like the first one. The aim here is that they can identify notes in different voices.

3.3.7. When students play music built on melodies with chordal accompaniments, they sing all the chord notes and the melody with solfège if time allows. For example, in *Love Somebody* (refer to Appendix II.8, p.325), they practise the left hand part first, singing dms234-s234 and so on. Then, they practise the whole song, singing $d_1m_1s_1$d-m-s-s-s_1r-m-f and so forth. When they sing chords, they must sing as fast as possible without dragging the music. If the music is fast, students may not have enough time to sing all the chord notes and melodies. They sing chords as usual when they practise the left hand accompaniment. Then, they sing the melody only when they practise both hands.

3.4. Acquisition of AP through Other Music Activities

The classes related to the AP acquisition include the AP training course, music listening, sight-reading, singing, sight-singing, composition, conducting, preparation for piano examinations and music theory. They are usually held once a year for four sessions. When they are held, they are held once a month, with an hour each.

3.4.1. In the AP Training Course, the AP identification (see Appendix I.7, pp.305-307), the piano purchase (see Appendix I.12, p.314), the piano tuning and maintenance (see Appendix I.13, pp.315-316), and the purchase of audio equipment and CDs (see Appendix I.14, p.317) are instructed. The course aims at developing students' AP of all 88 piano

tones before grade three through listening to piano tones. The method involves listening attentively to piano tones, singing solfège, looking at notes and identifying tonal qualities. The preparatory grade involves the tonal identification from C_0 to C^1, grade one from C_1 to C^1, grade two from C_2 to C^2, and grade three from A_4 to C^4, i.e. all the 88 piano tones. Refer to Appendix I.8 to I.11, pp.308-313 for the detail of the syllabuses from the preparatory grade to grade three in the AP training. The syllabus of the fourth grade or higher are not included, since these courses focus on, for examples, identifying intervals, chords, harmonic progressions and modulation. These parameters are beyond this study.

3.4.2. There are three types of music for listening, comprising recordings from piano instructors, cassette tapes or CDs of the piano textbooks, and extracurricular music. For the music of the piano books recorded by instructors, students are advised to listen attentively, look at scores and sing solfège after the music, preferably memorizing the pitch. This process enables students to associate tones to the absolute solfège, their positions in the keyboard and stave. For the music from the CDs and cassette tapes accompanied with the piano books, students have to listen attentively, look at scores and sing solfège on their own after the music (refer to Appendix I.1, pp.288-293 for the list of CDs and cassette tapes accompanied with the textbooks). The extracurricular music is assigned for students to hear as background music when they are studying, reading, sleeping, waking up, playing games, taking meals or in leisure. Most of the music is instrumental or orchestral. It is designed to enhance students' AP through the frequent exposure to music of different instruments (see Appendix I.2, pp.294-298).

3.4.3. Sight-reading is another means to train students' AP. In practising sight-reading, they play and sing the key signature, the right hand part, the left hand part, and then both parts. Finally, they do all the singing in the brain, and just play. Refer to Appendix I.3, pp.299-300 for the list of textbooks.

3.4.4. In singing classes, students sing children songs, folk songs, Christmas songs and songs composed by the researcher. The basic procedures are described as follows. The

instructor demonstrates singing the melody in absolute solfège when s/he is playing the melody at the piano. Students listen and memorize the tune, looking at the score simultaneously. When students feel confident about the tune, they sing solfège with the instructor with the help of the piano. Then they sing solfège by themselves and the instructor plays the tune. After they feel confident about the tune, they sing the solfège without the piano. They practise in the same way at home. In the next session, they are expected to sing the solfège in tune without the piano. Then the instructor plays the accompaniment and they sing the solfège. The last stage will be singing words.

3.4.5. In sight-singing, students try to develop the technique of singing tunes in tune without the help from any instruments. To achieve this, after the instructor has played the tune on the piano, students, looking at the score, sing the tune with solfège and try to memorize the pitches. Then, the instructor plays the first note and any notes that they sing out of tune in order to assist them to sing. If they fail to sing the melody in tune, they keep practising in these two stages until they can sing the whole tune without any references. It is hoped that with enough practice, they will be able to sight-sing any melodies in tune without any references. Refer to Appendix I.3, pp.299-300 for the list of textbooks.

3.4.6. The method of composition related to AP is to sing the music out with in-tuned solfège before playing it out on the piano. Students explore the motive of the melody or accompaniment through singing solfège before writing it down on the manuscript paper. They compose the whole piece of music through singing solfège alone. After finishing a section or the whole piece, they try it on the piano and do some revision. The aim here is that they can compose with exact tones even though they are without references or the help from music instruments. See Appendix I.3, pp.299-300 for the list of textbooks.

3.4.7. The method of conducting related to AP is to sing all the music in absolute solfège before students sing songs, and before or at the time when they are playing music instruments. The instructor or student conductor conducts players and singers to sing their parts in solfège until they understand their parts well. Then, they play or sing the music.

The conductor, players and singers communicate pitches to each other with singing solfège. The conductor would sing the music out as players are playing the music at the beginning of the practice in order to help young and SEN players to follow the music. The repertoire for conducting is Christmas songs, folk songs and simplified orchestral works arranged for percussion and keyboard instruments. See Appendix I.3, pp.299-300 for the list of textbooks.

3.4.8. Piano students would take grades three, five, eight and DipABRSM piano practical examinations held by ABRSM, or grade eight and ATCL held by TCL. In the graded examinations of ABRSM and TCL, there are four parts, namely scales, arpeggios and broken chords, piano examination pieces, playing at sight, and aural tests. In the DipABRSM examination, there are four parts too, i.e. recital, programme notes, viva voce and quick study. In ATCL, the four parts are technical works, examination pieces, programme notes and aural tests. The same AP approach described above is used in preparing scales, arpeggios and broken chords, technical works, examination/recital pieces, sight-reading, and the quick study. They are all started with singing absolute solfège. Students are prepared for aural tests in AP even though only RP is required. Refer to Appendix I.3, pp.299-300 for the list of textbooks.

3.4.9. The frequency of the music theory classes is similar to those of other activities except for the grade five ABRSM theory examination which lasts for 10 months with a total of 60 hours. In teaching music theory, before any written work, students sing notes, scales, intervals, chords or music excerpts in absolute solfège. If students cannot catch the exact pitches, the piano is used as the reference. In the piano method books, music theories are given wherever these are needed to explain theories in the piano pieces. Students are not only required to understand them on paper, but to play and sing them. When teachers play back the materials, they have to identify them from hearing alone. Refer to Appendix I.3, pp.299-300 for the list of textbooks.

3.4.10. Parent guidance sessions are held once in every three months. Each session lasts for

three hours. In the meetings, the topics of AP, such as the AP identification (see Appendix I.7, pp.305-307), the piano purchase (see Appendix I.12, p.314), the piano tuning and maintenance (see Appendix I.13, pp.315-316), and the purchase and operation of audio equipment and CDs (see Appendix I.14, p.317) are covered. In the students' courses on similar topics, the instructor gives greater emphasis to the process and the method of training. But in the parent guidance sessions, the instructor gives much greater attention to the rationale. Parents would support their children's learning more if they have a greater understanding of this area.

3.5. AP Grading Scheme

Under LCK MusET, there is a system developed to grade the AP achievement. AP is not an all-or-nothing ability (Levitin, 1998). A grading scheme is inevitable. Octave errors are so common that they are always ignored (Miller & Clausen, 1997; Marvin & Brinkman, 2000). The literature showed that when octave errors were ignored, the accuracies of AP subjects were from 30% (Rush, 1989) to 100% (Hantz et al, 1997; Mottron et al, 1999 etc.). In many cases, the lowest accuracies were 30% and 60% (Rush, 1989), 40% (Miyazaki, 1993), 50% (Boggs, 1907), 58% (Lockhead & Byrd, 1981), 60.63% (Klein, 1984), 60% and 65% (Meyer, 1899), 62.5% (Hantz et al, 1997), 64% (Whipple, 1903) and 66.75% (Wayman et al, 1992). Under LCK MusET, 60% is the passing mark.

However, the octave placement should be part of the tone. One should identify note names together with octave designations in tonal judgments. Only answers with right note and octave names are counted as all right. Answers with right note names and wrong octave placements are counted half right. If note names are wrong, even if octave names are right, answers are regarded as wrong. The revelation mark of 10% indicates AP starting to develop. It is based on the chance level. One getting 9.99% or less is likely to have been achieved by guessing. Students have a 1/12 chance of guessing the right tone names , i.e. 8.33%.The chance of guessing right octave names after right note names is 8.3x1/8, i.e. 1.04%. The chance level of getting both note and octave names right one after another is

thus 9.37% (100%x1/12+100%x1/12x1/8x). In an assessment with the octave errors counted, the accuracy was 10% for non-AP and 42.87% for AP subjects (Klein et al, 1984). In this scheme, 9.99% or under signify no AP, 10% indicates AP starting to develop, 10%-40% represent initial AP, 50% is a passing score and 100% is perfect. See Table 3.5.1.

Table 3.5.1: AP Grading Scheme with Octave Errors Counted

Pass or Fail		Specification	Description	AP Grading	Score (%)
Fail	Fail	No AP	No AP AP by chance AP with one to few notes	AP0	0-9
	Initial	Starting AP	Start to possess AP	AP1	10-19
				AP2	20-29
		Progressive AP	Possess AP with Progress	AP3	30-39
				AP4	40-49
Pass	Satisfactory	Fair AP	Possess AP with Fairness	AP5	50-59
				AP6	60-69
		Meritorious AP	Possess AP with Merit	AP7	70-79
				AP8	80-89
		Distinctive AP	Possess AP with Distinction	AP9	90-99
		Perfect AP	Possess Perfect AP	AP10	100

3.6. Coda

Under LCK MusET, a comprehensive note naming system was designed soon after 4th April, 1992 when MusH was founded. The solfège is made absolute in which doh is fixed to C. Since each tone has a name, students can anchor tones to these labels. Labels are sol-fah names. Sol-fah names possess a suitable nature for singing since they carry pitches. Through singing absolute solfège students can memorize independent tones. A system for notating octaves is designed as well. The notes of the same sol-fah name in different octaves can be differentiated from each other. The solfège singing system is used in all music activities to designate pitches. AP is so extensively used in MusH that this makes students develop AP dominance over RP even when they learn RP in activities outside MusH. On the other hand, that children can learn to play the piano as young as two years and two months old is another influencing factor. AP can be deeply rooted in them before

they develop RP in schools or in music activities in society.

The piano is designed to be the medium to help students develop AP. Accurate piano tuning and proper piano maintenance are essential. A competent piano tuner who can tune every tone of the piano in tune is important too. The researcher achieves this through his administrative policy.

Practice makes perfect. As parents know what to do, they are able to help their children to practise. They are able to help children to solve at least elementary problems in the music learning. Children would be more eager to learn and proceed faster than just learning on their own. As a matter of fact, young and SEN children can hardly practise without the help from parents. So parental support is another important factor in helping students develop AP.