

# A Project entitled

# Case study of teaching and playing piano duet to improve overall rhythmic sense for mental handicap student

Submitted by

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Case study of teaching and playing piano duet to improve overall

rhythmic sense for mental handicap student

Ching Lui

**Abstract** 

This article reports on the extent of teaching and playing piano duet on improving

overall rhythmic sense for mental handicap in a case study. A girl aged 16 with low

level of mental handicap took part in the action research. The action research was

performed to elucidate the effect on improving rhythmic sense for mental handicap

through teaching and playing piano duet. Result shows that (1) motivation, (2)

teacher's teaching, and (3) family support play key roles in student's learning. This

study contributes to the music learning methods for special education needs students

by identifying motivation and learning methods that impacted on their musical

development.

**Keywords**: piano duet; overall rhythmic sense; mental handicap; motivation

**Background** 

Yanni (Pseudonym) is now 16 years old, with low level of mental handicap and speech

impairment when she was born. The researcher has known her since Yanni was 4 years old.

Yanni's mother invited the researcher to play with Yanni at home instead of being the tutor of

Sunday school in church. Three years ago, Yanni's mother asked the researcher to give private

piano lesson for Yanni at her home. She usually played children's pieces, etudes like Czerny Op.

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599 and piano duets. She was able to play most of the notes with pitch accuracy by herself, but without self-conscious to play according to the rhythm with steady pulse. The researcher found that Yanni seemed to be more interested and excited to play piano duets rather than solo piece. Therefore, the researcher used piano duets as positive reinforcement for Yanni when she has good learning attitude and performance during lesson with hard working practice after lesson. Researcher also found that the level of efficiency for Yanni to learn assigned rhythm in piano duet was higher than that of solo piece with the same level of difficulty. As an educator, the researcher decided to find out teaching methods to improve the overall rhythmic sense for the girl by teaching and playing piano duet with her.

# **Initials literature review**

Teaching methods on improving rhythmic sense for students with special educational needs

Some people think that children with mental handicap may not be able to learn music. Their level of intelligence is lower than normal children, but they can still learn music very well with proper teaching methods. Campbell (2008) stated that people with mental handicap could learn music by expecting performance on one musical task at a time, performing patterns repeatedly, being taught music by rote but not by note, and learning pieces with simple rhythmic pattern and slow tempo. The students are advised to play one piece of piano duet every single time, with simple rhythmic pattern and slow tempo, through repeated listening played by the teacher before finding the notes. These may help improve overall rhythmic sense of the mental handicap students.

# Advantages of playing ensemble

Student is more likely to maintain a steady pulse and gain better rhythmic constancy with any tempo when he or she play duet with a partner (Foster, 2006). Loehr et al. (2013) suggested more significant effect on joint action than only one individual's contribution as people could share common goal to present and monitor actions of each other when they perform tasks together. Student may be able to improve overall rhythmic sense through coordinating with partner when playing duet. James (2012) set rhythm as student's primary focus that students playing ensemble were able to listen to themselves, teacher's playing, harmonically and texturally richer accompaniment. Gallaway and Kirchner (2012) mentioned the importance of rhythmic consistency. They stated, "teacher could encourage and reinforce rhythmical playing by counting aloud, keeping the beat and playing the other part with the pupil.

# Teaching methods for music education

The Gordon Institute for Music Learning (2010) gave the idea of musical contexts for learning. It suggested students hearing the music for several times then teacher presents a series extracted ideas related to and functions within the whole. Whole-part-whole may be a desired teaching methods that students should experience the whole of the music before detailed rehearsal on small sections, followed by greater technical precision and overall understanding of the music. Students with metal handicap may improve overall rhythmic sense through playing duet repeatedly with certain rhythm to be taught, then being trained to play that kind of rhythm with self-consensus to apply in other pieces.

"Sound before symbols" is to let students listen to the music fluently and repeatedly to express or be able to express thoughts and feelings then (Odam, G.,1995). Students with mental hadciap

may be suggested to listen to the music repeatedly in order to immerse into music (The Gordon

Institute for Music Learning, 2010). Students may absorb enough good musical sounds to retain

in long-term memories. Through playing piano duets, they may have more time to listen to the

music as they have to practice their own part with steady pulse before having ensemble with

another person. The mindfulness about the pulse through playing piano duet would be more than

that of solo piece, making it into long-term memory.

The teacher researcher demonstrate to play the music before asking student to play according to

the score. Then, teacher researcher will give some cueing when student has some mistakes while

playing. Teacher researcher will keep counting in some of the difficult parts softly to avoid

distraction and train student to keep a steady rhythmic flow accurately during ensemble in the

action research.

**Research question** 

This research aims to find out the extent of teaching and playing piano duet on improving the

overall rhythmic sense of a student with low level of mental handicap. (An action research of a

girl with low level of mental handicap aged 16)

**Objective** 

It aims to suggest an individualized music learning methods for the girl with low level of mental

handicap to improve her overall rhythmic sense through playing piano duet.

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# Research method

Action research will be used for this study. It is based on the model of action research (Leitch & Day, 2000; Mills, 2000), which entail the steps of *observe-reflect-plan-act-evaluate*, which aims to improve the quality of action within a situation.

# 1. Design

Baseline design (AB design) will be implemented, followed by alternative strategies and followup observation. AB design will be used.

"A"(baseline, with no changes): the research participant will be given to play a set of "sight-reading" exercise published by ABRSM with selected teaching rhythm during pre-test at the first lesson of every round of action research. Then she will play her part of duet without any cuing after teacher researcher's demonstration.

"B"( a treatment or intervention): If the research participant still plays her part with inaccurate rhythm, teacher will use visual cue, for example, use colour pen to mark the beats and drawings relevant to the piece as stimulation, to attract the research participant to play with accurate rhythm and count the beat with her when she is playing. Teacher researcher will tell the research participant that they can play duet together if she plays with overall rhythmic accuracy which is a positive reinforcement.

Three rounds of action research will be taken, with four to five lesson in every round. Duet learning will take ten to fifteen minutes in every 30-minute-lesson weekly. Changes in rhythmic accuracy (according to brief description of the video regarding the realization of the rhythmic figures and maintenance of pulse) in playing "sight-reading" exercise published by ABRSM in the pre-test (the first lesson of every round of action research) and post-test (the last lesson of

every round of action research after playing duet) will be shown. The duet in the same round of action research will be compared. The "sight-reading" exercise of ABRSM is in same level, tonality, tempo, and rhythm with the duet in the same round of action research.

# Original strategy ("A": baseline):

To learn a new solo piano piece, teacher demonstrated once for the research participant firstly and asked research participant to play afterwards. When the research participant played solo piano pieces with inaccurate rhythm, teacher wrote the number of beats on the score and told her to play it again. If the research participant still played with inaccurate rhythm, teacher used visual cue, for example, use color pen to mark the beats and drawings relevant to the piece as stimulation, to attract the research participant playing with accurate rhythm and count the beat with her when she was playing. At the end of the lesson teacher would give research participant reward (appendix 5) according to her learning attitudes and performance.

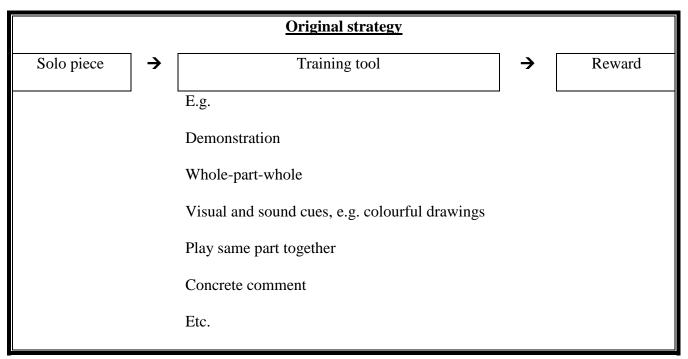


Figure 1: original strategy



The above strategy produced pitch accuracy but partial accurate rhythmic performance. However, if teacher did not remind her, she played with inaccurate rhythm again.

# Alternative strategy ("B": treatment or intervention):

Teacher researcher will assign piano duet for the research participant as she likes playing duet with her teacher. Teacher researcher will play duet with the research participant when she plays with overall rhythmic accuracy which is a positive reinforcement.

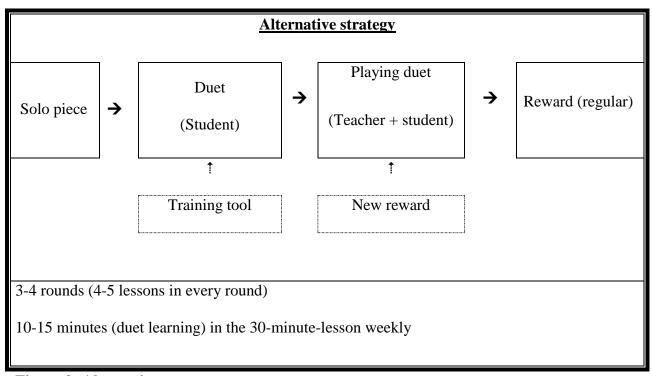


Figure 2: Alternative strategy

#### 2. Measure

Same set of sight-reading exercise(s) found in ABRSM sight-reading book will be used in pretest and post-test in every round to ensure the differences between pre-test and post-test are clearly presented. The research participant will not read or practise the sight-reading exercises after pre-test and before post-test in every round to ensure the validity and reliability of the test results. Changes in rhythmic accuracy (brief description of the video regarding the realization of the rhythmic figures and maintenance of pulse) during performance between pre-test and post-test in playing "sight-reading" exercise by ABRSM will be shown.

# 3. Data analysis

Video recording taken in every lesson will be used as data to evaluate the rhythmic accuracy (if the research participant keeps stable pulse and note value as indicated on the score). Difference on rhythmic accuracy between pre-test and post-test will be identified. Reflective journals and video logs (appendix 1) and video recording in every lesson will be analysed regarding difference on piano teaching methods on improving overall rhythmic sense.

Video recording of action research will be taken during the piano lessons, observed by the researcher and professional musician major in piano pedagogy with over 20-year-piano teaching experience to have cross check (appendix 4), proving the improvement of the research participant's overall rhythmic sense during the action research. Reflective journal and video logs is written after every lesson for evaluation, further planning and modulation of the following lessons.

# **Findings**

To a large extent, teaching and playing piano duet can improve the overall rhythmic sense of a student with low level of mental handicap.

The student had improvement on rhythmic accuracy. She did not take into account the rhythmic accuracy when she played in pre-test, but she played the music with rhythmic accuracy in post-test. She was able to process more complicated rhythmic figures, articulation, and gain the ability to play in faster tempo. Besides, the methods and frequency of intervention to rhythmic accuracy training reduced gradually in the following rounds of the action research.

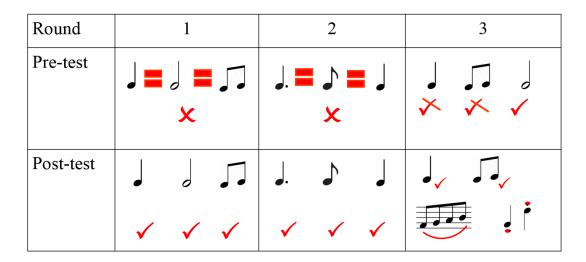


Figure 3: Performance difference in rhythmic accuracy between pre-test and post-test in every round

# 1. Improvement on rhythmic accuracy in post-test

According to the brief description of the video regarding the realization of the rhythmic figures and maintenance of pulse in pre-tests and post-tests, the student was able to achieve the learning objectives in all rounds of action research.

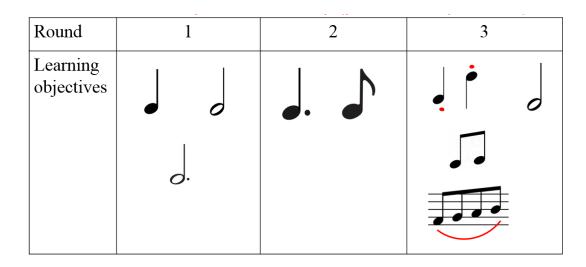


Figure 4: Learning objectives for every round

# Round 1

The learning objective is that student will be able to play quarter note, half note, and dotted half note with rhythmic accuracy.

During the pre-test, two phrases in ABRSM Grade 1 sight-reading exercises (appendix 2) were played. Student played with mostly correct pitch, but ignored all note value (quarter note, double-eighth notes, half note) as she played all the notes in the same pulse in both exercises. She made a minor mistake of playing B natural in exercise no. 2 (appendix 2) instead of Bb marked in key signature.

In post-test, student was able to play the sight-reading exercises with rhythmic accuracy. She was able to identify the rhythmic difference among note values. Teacher gave student the tempo in advance, then she played Bb in exercise no. 2 (appendix 2) according to the key signature.

Round 2

The learning objective is that student will be able to play dotted quarter note and eighth note with rhythmic accuracy. In pre-test, two phrases in ABRSM Grade 2 sight-reading exercises (appendix 2) were played. In exercise no. 2, student played the dotted quarter note and eighth note with rhythmic inaccuracy, like the note value of quarter note. For exercise no. 30, she played the half note in bar 1 in the note value of a quarter note.

In post-test, student was able to play the exercises with rhythmic accuracy. In exercise no.2, student played dotted quarter note and eighth note with rhythmic accuracy in bar 3 and played according to key signature (F major). In exercise no.30, after teacher gave her the tempo, student was able to maintain the pulse and according to the note value, but held the dotted quarter note longer than the original note value.

Round 3

The learning objective is that student will be able to play series of eighth notes, double-eighth notes, half note, and staccato quarter note with rhythmic accuracy. In pre-test, two phrases in ABRSM Grade 2 sight-reading exercises (appendix 2) were played. Student played with incentive to note value difference between quarter note and eighth notes, but with inaccurate pulse in both exercises.

In post-test, student played the eighth-notes, quarter note, and half note with rhythmic accuracy in both exercises. She was able to play with accurate articulation (*staccato* and *legato*).

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# 2. Methods of teaching rhythm and frequency of intervention reduces gradually in every lesson (appendix 1)

Round	1	2	3
Repertoire	My Heart will Go On	Colors of the Wind	Bourree
Tempo	Moderato	Moderato	Allegro moderato
Level	Grade 1	Grade 2	Grade 2
Lessons included	4	4	4
Performers	Teacher + Student	Teacher + Student	Teacher + Student

Figure 5: Piano duet repertoire and performers in every round

# Round1

Piano duet piece: "My heart will go on" (appendix 3)

Round 1 (lesson)	1	2	3	4
Teaching	+ Demonstrated to	+ Counting some	+ Counting	+ Counting with
method(s) being	play the whole song	difficult parts		softer voice
used	+ Pointing	+ Conducting	+ Conducting in	+ Conducting
			difficult parts	
	+ Counting beats	+ Marking	+ Pointing on the	
	+ Conducting	+ Singing the	score	
		melody for few		
		bars		
	+ Color drawing			
	+ Holding student's			
	finger to play			

Figure 6: Teaching methods used in round 1

# Lesson 1

Teacher played the whole song (student's part) once, then student played according to the score without any markings. Student played half note (in bar 7-8), and double eighth notes (bar 24) with the same pulse at the first time. Teacher corrected student's rhythmic accuracy by pointing the notes on the score and counting the beats for student when she was playing. Then, teacher counted and conducted student's piano playing above student's finger simultaneously when she was playing on the keyboard, with color drawing on the score to remind her the rhythm. After

that, teacher counted and held student's fingers to play with rhythmic accuracy at the same time, and repeated the above methods continuously until she played the double-eighth note, quarter note, half note, and dotted half note with rhythmic accuracy.

# Lesson 2

When student was playing the half note in bar 4 as the note value of quarter note, teacher was counting the beats verbally. Then, teacher counted and conducted above student's hands when she was playing. When teacher played duet with student, teacher sang the melody for few bars, counted for some difficult parts, marked down the beats on the score, and conducted student at the same time.

# Lesson 3

Teacher counted and conducted student to play at the first time. Then, teacher pointed the beats on the score for student. When student played with rhythmic inaccuracy still, teacher counted and conducted her playing. When student and teacher played duet, teacher used less cueing, only helped in difficult parts through counting and conducting.

# Lesson 4

Teacher counted and conducted with softer voice than previous lessons for the whole song at the first time while student played. When teacher and student played duet, teacher gave the tempo in advance and counted the beats throughout. When student played with rhythmic inaccuracy, teacher demonstrated from bar 33 till the end, then asked student to play from the same place while teacher was counting and pointing on the score.

# Round 2

Piano duet piece: "Colors of the wind" (appendix 3)

Round 2 (Lesson)	1	2	3	4
Teaching	+ Demonstrated	+ Marking on the	+ Counting with	+ Counting the
method(s) being	to play the whole	score	softer voice	entrance part
used	song			
	+ Asking student	+ Pointing on the	+ Conducting at	+ Conducting at
	to practice with	score	the beginning	the beginning
	rhythmic and			
	pitch accuracy			
	after lesson			
		+ Counting with		
		louder voice in		
		some difficult		
		parts		

Figure 7: Teaching steps in round 2

# Lesson 1

Teacher demonstrated the whole song in student part firstly. Student played the dotted quarter note, eighth note and quarter note in the note value of quarter note in right hand part. Teacher asked student to practice the song after lesson with rhythmic and pitch accuracy.

# Lesson 2

After student played the half note in the note value of quarter note in bar 1 to 3, teacher marked down the beats on the score at the same place, conducted and counted simultaneously for student's playing in bar 4 (dotted note and eighth note), bar 6 (half note with tied eighth note), and bar 8 (dotted half note and quarter note). After that, teacher pointed on the score and asked student to repeat bar 6 to 7 till playing with accurate rhythm. Then, teacher reduced the method and frequency of reminding student to play with rhythmic accuracy except counting louder to remind student holding the dotted half note in bar 28.

# Lesson 3

Teacher counted and conducted at the beginning for student. Then, teacher counted with softer voice than previous lessons in round 2 for some difficult parts. When teacher and student played duet, teacher counted and conducted at the beginning. After demonstrating to play the student part in faster tempo, teacher played the same part together with student from bar 1, and repeated playing the difficult rhythm from bar 13 to 15.

# Lesson 4

Teacher counted the half note at the beginning, then reduced the frequency of intervention afterwards. Teacher gave faster tempo to student before playing the same part together. When they played duet, teacher conducted the entrance for student part.

# Round 3

Piano duet piece: "Bourrée" (appendix 3)

Round 3 (Lesson)	1	2	3	4
Teaching method(s)	+ Demonstrated to	+ Counting in	+ Marking on the	+ Played the same
being used	play the whole song	some difficult	score	part together with
		parts		student
	+ Teacher and	+ Demonstrated	+ Conducting	+ Singing the
	student played	to play in faster	some difficult	melody in some
	together in the same	tempo	parts	difficult parts
	part	+ Singing in		
		some difficult		
		parts		
	+ Conducting			
	+ Singing the			
	melody			

Figure 8: Teaching steps in round 3

# Lesson 1

Student played right hand without demonstration from teacher at the first time. Teacher demonstrated in faster tempo. Teacher and student played together in the same part. Student was able to play according to the articulation (*staccato* and *legato*) without reminding. Student was able to play the left hand part with pitch and rhythmic accuracy. After the demonstration of

playing in hands together, student played through teacher's conducting and melody singing. Student was able to play according to dynamic marking (f and p).

Lesson 2

Student played at the beginning. Teacher counted the dotted half note and quarter note for student only. After teacher's demonstration of playing in faster tempo, student and teacher played bar 5 to 6 together for student part with teacher's counting. When they played duet, teacher sang melody throughout the piece, then just sang at the middle part of the piece gradually after the repeat sign.

Lesson 3

Teacher marked the beats on the score for bar 4 to 5. Teacher just conducted some difficult parts when student was playing. Student and teacher then played the same parts together in faster tempo. When they played duet, teacher asked student to play repeatedly for rhythmic accuracy in certain part.

Lesson 4

Teacher and student played student's part together with faster tempo with teacher's conducting. When they played duet, teacher sang the melody in some difficult parts. Student was able to play according to dynamic marking.

3. Playing duet is part of the motivation. The girl liked playing duet with her piano teacher and

mother.

Student can have one chop in her piano handbook after every lesson if she behaved well (for

example, listen to teacher's instructions, read the score by herself, play with proper hand shape,

be polite to teacher, etc.) during lesson and practice adequately before the lesson. One "special

gift" chosen by teacher will be given when student has collected five chops. However, if student

does not behave well, or cannot meet the requirement set by teacher, student will not have a chop.

If student makes fatal mistakes or serious misbehavior, teacher may deduct one chop on her piano

handbook.

According to the brief description of recordings, teacher appreciated and gave the girl comment

every time after her performance.

Round 1

At the first lesson, after playing by student, teacher said student had played the song with steady

pulse at the beginning. When the girl completed playing the duet piece with rhythmic accuracy,

teacher asked student, "We play duet together if you play with accurate pitch and rhythm, okay?"

The girl replied as "Yes!" Then, teacher gave the girl a chop for behaving well during lesson and

playing with rhythmic accuracy. The girl smiled. For the following every lesson, teacher praised

the student for her good performance, such as playing with rhythmic accuracy after repeatedly

practice on some difficult parts. Teacher reminded student that when two persons played duet

together, both of them needed to count the beats, otherwise, they could not play duet well. The

student was also cheered up by the words like "you did it well at the beginning, keep it up for the

following part!" After the post-test, Teacher praised student for playing piano with rhythmic

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accuracy, and would give new duet to student next time. Techer asked Yanni if she liked playing piano duet. The student replied, "um!" (It means "yes")

Round 2

Teacher told student to play the duet with faster tempo during lesson 3. It took long time for

teacher to train her for faster tempo, but student still played not as fast as required. At the end of

the lesson, teacher still has not given the chop. Teacher told student, "Please play it faster next

lesson, understand?" Student replied, "understand?" Then the student played the song with faster

tempo immediately. Teacher saw her performance and told student, "You are able to play in

faster tempo!" and encouraged her to practice after lesson after giving her a chop.

For the following lessons, teacher kept praising the student for what she has playing according to

the score and told student that teacher would reduce cueing her playing later as she was able to do

it by herself.

Yanni's mother asked teacher and Yanni the learning progress and the attitude after every lesson.

When Yanni has good performance and attitude, her mother will appreciate her verbally, like

"keep it up! You can do it when you work hard.", "You have to practice well if you want to

perform in front of your classmates and friends", or by hugging. When Yanni has misbehavior,

her mother will give her warning, like "do you want to have buffet this week? No buffet if you do

not play it well or do not concentrate during lesson!" (Yanni likes food very much), "Do you

want to have piano lesson and painting lesson? If you do not do well, I cancel all the lessons!"

Yanni bowed her head with sad face. Her mother said, "Practice well this week and concentrate

during lesson! Understand??" Yanni replied softly, "Yes."

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After round 3

Yanni's mother told teacher that Yanni has student-parent performance at the end of the school

term and asked help for playing piano duet with Yanni. Teacher gave authority to Yanni to

choose type of performance and the repertoire. Yanni wanted to play piano duet with her mother

and choose her favorite duet piece. Teacher asked Yanni privately if she wanted to play duet

with her mother and she said yes.

4. The student gains ability to play in faster tempo in short period of time

She is able to play music with faster tempo. The piano duet repertoires in round 1 and round 2

were in moderato while that in round 3 was allegro moderato. She was able to play My heart will

go on in m.m. 70 in round 1 and Bourree in m.m. 95 in round 3.

**Discussion** 

Teaching and playing piano duet can improve overall rhythmic sense of a student with low level

of mental handicap in large extent. Yanni is capable of playing music with steady pulse

physically and musically.

1. Importance of social aspects in piano playing

Playing piano duet is part of the motivation to Yanni as she likes it. Expectancy-value is applied

that Yanni was appreciated verbally or by body language such as hugging and good hand-sign,

getting chops and gift, and playing duet with teacher, seen as attainment value for her to increase

the expected value of playing with rhythmic accuracy from desired performance (Leung &

McPherson, 2011). These kinds of positive reinforcement involve strong sense of self-concept for

her to believe that she is capable of playing piano (O' Neill, S. A., & McPherson, G. E., 2002).

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Intrinsic motivation has been applied in Yanni's case as she has more interest in playing piano duet rather than solo piece. Renwick and McPherson (2000) found that with the piece the student wanted to learn, she could have a marked increases in the way to monitor and control her performance. Teacher gave Yanni authority to play solo piece or piano duet and used duet playing as a reward of keeping steady pulse, pitch and rhythmic accuracy. She had enjoyment to play piano duet so she concentrated more during lesson and practiced effectively after lesson in order to play duet with teacher as a reward. Enjoyment increases motivation to have higher quality of practice and performance.

# 2. Teacher's teaching

Yanni had high self-efficacy after round 1 as she believed that she had the ability to play the piano duet piece of certain level of difficulty. Teacher provided suitable training methods, such as suitable level of difficulty of duet piece, scaffolding, chucking, visual aid, sound cueing, repeatedly practice, and clarifying the requirements with sufficient time by assigning simpler or fewer tasks until Yanni can master them. Student was appreciated always after achieving the requirements. She played piano duet with high self-efficacy after round 1 as it strengthens confidence and ensures persistence. (McPherson and Mc Cormick, 1999)

Apart from that, teacher gave accurate measure to Yanni's performance with clear description of successful performance with demonstration. These increases Yanni's belief that good performance will result in particular outcomes, appreciation, chops and gift, and playing piano duet with teacher.

According to Pajares (1996), "Self-efficacy beliefs act as determinants of behavior by influencing the choices that individuals make, the effort they expend, the perseverance they exert in the face

of difficulties, and the thought patterns and emotional reactions they experience". Comparing with play solo piece, Yanni is more likely to engage in playing piano duet as she felt capable in music and value it.

Yanni had flow experience due to the presence of clear goals and unambiguous feedback, focused concentration, a sense of outcomes under her own control, and experiencing the activity as intrinsically rewarding (Csikszentmihalyi, Rathunde & Whalen, 1993). Student's motivation of learning music was fostered in different ways in order to ensure intrinsic reward being remained in musical experiences. (O'Neill, 1999)

Teacher spent time talking with Yanni about her performance is highly related to her effort. It develops adaptive attributional responses that she may be motivated for both short-term musical development and long-term musical involvement (O' Neill, X. A., & McPherson, G. E., 2002). Austin & Vispoel (1998) stated that students who reported effort attributions tend to display greater persistence and stronger emotional reactions, like feeling of pride for a high result or shame following failure.

Yanni displayed adaptive master-oriented patterns that she tended to remain high in her persistence failure and appeared to enjoy exerting effort in the pursuit of task mastery. She could master the rhythm by repeatedly practice and believe her ability to tackle problems. (Dweck, 1986, 2000; Dweck & Leggett, 1988; Henderson & Dweck, 1990; Pike, 2011) Yanni tended to seek challenges and adapted her practicing strategies on playing piano with rhythmic accuracy, especially in round 2, resulting in increasing competence and improving her performance.

# 3. Family support

# a) Parenting style

Yanni's parents applied authoritative parenting style that they showed support to Yanni's study, hobbits, and interest. Yanni's mother sometimes practiced piano with her daughter. They had also given adequate guidance to her manner, discipline, moral values, religion, etc. Yanni's parents with authoritative parenting style (Santrock, 2008) and teachers gave her enough support, warmth and encouragement to fulfill the need of love and belongingness in Maslow's hierarchy of needs. She may try to build up trust with the others, increase the level of acceptance and affiliation, and give or receive love, reduce the level of fear and anxiety, and become more independent. She may have higher level of "drive to learn" in the Four-drive theory by Paul Lawrence and Nitin Nohria (McShane, S. L. & Von Glinow, M. A., 2008) that she took responsibility on her piano playing and became more hard-working and self-motivated, with improvement on learning attitude and music performance. The music achievement increases her confidence, enhancing in higher level of self-esteem, self-concept, self-respect. She may become more cheerful, self-controlled and self-reliant, and achievement oriented.

# b) Consistency of teaching methods (parents and teacher)

Yanni's parents followed teacher's rules and cooperated with arrangement that gives Yanni clear requirement in piano learning. Yanni's mother used to ask teacher researcher the learning performance and attitudes after every lesson. Teacher and parents used positive reinforcement and punishment simultaneously after compromising every time according to Yanni's performance and attitudes. Parents observed and followed up Yanni's practicing progress frequently and communicated with teacher the teaching and learning methods. With clear

instructions and requirements, Yanni was capable of performing successfully with good attitudes, resulting in efficient and interesting piano learning for Yanni.

# **Limitation**

It is a single case study for effect on improving overall rhythmic sense of special education needs student through teaching and playing duet. More studies are needed to prove if teaching and playing piano duet can improve the overall rhythmic sense of a student with low level of mental handicap.

# **Conclusion and Implications**

Everyone is able to learn music. Students with special education needs can be able to learn music with proper learning methods. Motivation is essential in music learning. Once student's interest or motivator has been found, it may boost his or her learning progress and facilitate learning outcome in more efficient way. Music learning methods for special education needs can be applied in normal students to produce more effective learning outcomes. Learning can be extended after lesson. Learning process is not just between teacher and students, but also family and friends. Students can be motivated to learn with interaction among his or her peers, family, and teachers. Further study will be the effect of music learning regarding teacher-student relationship, source of motivation apart from teaching and playing piano duet (for instance, recording of solo piece for student for play simultaneously, any form of performance with others).

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# Appendix 1\_video log and reflective journal

#### #Round 1

Learning objective: student will be able to play quarter note, half note, and dotted half note with rhythmic accuracy

# Pre-test

Student played all notes (quarter note, double eighth notes, half note) in the same pulse in both exercises.

She played B natural in exercise no. 2 instead of Bb marked in key signature.

# Post-test

Student was able to play the sight-reading exercises with rhythmic accuracy

Teacher gave student the tempo in advance, then she played Bb in exercise no. 2 according to the key signature.

Teacher praised student for playing piano with rhythmic accuracy, and would give new duet to student next time. The student replied teacher, "um!" (It means "yes")

Lesson 1 (time for video recording)

(23:10-25:32)

Student played whole song once.

Student played half note (in bar 7-8), and double eighth notes (bar 24) with the same pulse at the first time.



Teacher praised student for playing the song with steady pulse at the beginning. (26:00)Teacher pointed the notes and counted the beats for student to play the half notes with accurate rhythm in bar 4. (26:40)Teacher conducted student's piano playing above her hands on the keyboard (27:40)Teacher had color drawing on the score (28:00)Teacher demonstrated playing double eighth notes in bar 23. (28:25)Teacher held student's fingers to play with rhythmic accuracy Teacher repeated the above methods to ask student play with rhythmic accuracy. (30:45)

Teacher gave student a chop as she played with rhythmic accuracy during lesson.

Teacher told student, "we can play duet together if you play with rhythmic accuracy, ok?"

(31:20)

\*Reflection:

Simple and short exercise, keep her busy to concentrate in lesson

# Lesson 2

(26:40)

Student played the second half note in the note value of a quarter note in bar 4.

Teacher counted the beats verbally.

(27:30)

Teacher conducted above student's hands and counted verbally.

(28:43)

Teacher praised student for playing with rhythmic accuracy.

(29:17)

Teacher and student played duet together.

Teacher sang the melody or few bars, counted verbally for some difficult parts, used pencil to mark the beats on the score, and conducted.

(31:40)

Teacher told student to play with rhythmic accuracy to have duet playing with teacher.

"兩個一齊彈,拍子都要啱,如果唔係就彈唔倒"



"前面做得幾好,後面繼續練好"

"練好先夾倒架嘛,係咪?"

Student replied, "yes!" ("喝!")

\*Reflection:

Verbal appreciation and remaining student to keep stable pulse and rhythmic accuracy.

# Lesson 3

(26:00)

Teacher counted, conducted, pointed on the score.

(28:10)

Teacher counted verbally and conducted on bar 33.

(28:40)

Teacher played duet with student.

Teacher helped student in difficult parts by counting verbally and conducting

(31:25)

Student played with rhythmic accuracy in bar 33.

Teacher told student to play with rhythmic accuracy and play duet together next lesson.

("下次練好就可以一齊彈全首")



\*Reflection: Can reduce the frequency and methods of intervention. Lesson 4 (15:23)Teacher counted verbally and conducted in bar 23-24 till the end (19:40)Teacher and student played duet together Teacher gave the tempo to student, counted verbally (24:00)Student played bar 33 till the end Teacher demonstrated to play bar 33 to the end Student played with teacher's counting and pointing on the score. \*Reflection: Can encourage student to find out her own practicing methods to keep rhythmic accuracy.

### #Round 2

The learning objective is that student will be able to play dotted quarter note and eighth note with rhythmic accuracy.

### Pre-test

Two phrases in ABRSM Grade 2 sight-reading exercises (appendix 2) were played. In exercise no. 2, student played the dotted quarter note and eighth note with rhythmic inaccuracy, like the note value of quarter note. For exercise no. 30, she played the half note in bar 1 in the note value of a quarter note.

### Post-test

In exercise no.2, student played dotted quarter note and eighth note with rhythmic accuracy in bar 3 and played according to key signature (F major). In exercise no.30, after teacher gave her the tempo, student played the dotted quarter note and eighth note with incentive to the difference in note value (she played eighth note in shorter time than dotted quarter note).

#### Lesson 1

(17:15)

Student played her part firstly.

Teacher praised student to play with rhythmic accuracy. ("有數拍子,做得好好"…"下次仲表演嗎?" "努力!")

(19:00)



Teacher demonstrated the whole song in student part

(19:48)

Student played the dotted quarter note, eighth note and quarter note in the note value of quarter note in right hand part.

(21:16)

Teacher asked student to practice the song after lesson with rhythmic and pitch accuracy.

\*Reflection:

Make comments and verbal appreciation simple and concrete.

### Lesson 2

(17:10)

Student played the half note in the note value of quarter note in bar 1 to 3

(17:55)

Teacher marked down the beats on the score at the same place,

(18:55)

Teacher conducted and counted simultaneously for student's playing in bar 4 (dotted note and eighth note), bar 6 (half note with tied eighth note), and bar 8 (dotted half note and quarter note).

(19:30)



teacher pointed on the score and asked student to repeat bar 6 to 7 till playing with accurate rhythm.

(21:10)

Teacher reduced the method and frequency of reminding student to play with rhythmic accuracy except counting louder to remind student holding the dotted half note in bar 28.

(28:55)

Teacher told student, "你數拍子,我下次畀印仔你!" (I will give you chop next time if you count the beats when playing the song)

\*Reflection:

Can just emphasize on intervention of difficult parts.

### Lesson 3

(4:25)

Teacher counted and conducted at the beginning for student. Then, teacher counted with softer voice than previous lessons in round 2 for some difficult parts.

(7:20)

Teacher counted the beats verbally.

(8:45)

Teacher asked student to play the repeat sign when playing until bar 16.



(9:58)

Teacher counted "1-n-2-n-3-n-4-n" loudly when student play bar 28.

(10:15)

Teacher appreciated student, "幾好喎, 有數 1-n-2-n-3-n-4-n"

When teacher and student played duet, teacher counted and conducted at the beginning in bar 4,6,10-12

(13:50)

Teacher played duet with student. Teacher counted and conducted while playing.

(17:39)

After demonstrating to play the student part in faster tempo, teacher played the same part together with student from bar 1, and repeated playing the difficult rhythm from bar 13 to 15.

(18:38)

Teacher and student played the same part together from bar 1. Teacher asked student to practice repeatedly from bar 13-15.

(27:14)

Teacher ended the lesson and did not give chop to student yet. Teacher said, "you have to play it faster." Student replied, "I can play like this." Then she demonstrated to play in faster tempo.

Teacher said, "you are able to play in faster tempo. You See?"

Teacher gave student a chop for the lesson.



\*Reflection:

Can train student to play in faster tempo.

Lesson 4

(00:00)

Teacher counted the half note at the beginning, then reduced the frequency of intervention afterwards.

(6:40)

Teacher and student played duet together.

(13:33)

Teacher gave faster tempo to student before playing the same part together. When they played duet, teacher conducted the entrance for student part.

(14:00)

Teacher and student played duet together in faster tempo. Teacher used her head to conduct student's entrance.

Teacher told student to count beats, "一定要數啱拍子先可以彈 duets."

\*Reflection:

Can ask student to play according to the score at the beginning without teacher's demonstration.



### #Round 3

The learning objective is that student will be able to play series of eighth notes, double-eighth notes, half note, and staccato quarter note with rhythmic accuracy.

Pre-test

Two phrases in ABRSM Grade 2 sight-reading exercises (appendix 2) were played. Student played with incentive to note value difference between quarter note and eighth notes, but with inaccurate pulse in both exercises.

Post-test

Student played the eighth-notes, quarter note, and half note with rhythmic accuracy in both exercises. She was able to play with accurate articulation (*staccato* and *legato*).

Lesson 1

(22:25)

Student played right hand without demonstration from teacher at the first time.

Teacher demonstrated in faster tempo.

Teacher and student played together in the same part.

Student was able to play according to the articulation (*staccato* and *legato*) without reminding.

(24:05)

Student was able to play the left hand part with pitch and rhythmic accuracy.

(25:45)



After the demonstration of playing in hands together, student played through teacher's conducting and melody singing.

(27:15)

Teacher praised student, "幾好彈得,又有做跳音,有數拍子"

Teacher gave student a chop for her good performance and learning attitude.

(27:35)

Student was able to play according to dynamic marking (f and p).

\*Reflection:

Can train student to play with rhythmic accuracy, dynamics, and tempo simultaneously.

### Lesson 2

(00:00)

Student played at the beginning.

Teacher counted the dotted half note and quarter note for student only.

(2:30)

After teacher's demonstration of playing in faster tempo, student and teacher played bar 5 to 6 together for student part with teacher's counting.

(8:00)

Teacher and student played duet together.



Teacher sang melody throughout the piece, then just sang at the middle part of the piece gradually after the repeat sign.

(10:29)

Teacher praised student, "第一次幾好喎夾得!" (you play quite well!)

(10:45)

Teacher and student played duet together.

Teacher sang melody in the middle of the piece.

(12:40)

Teacher encouraged student to count the beat by herself next time. ("下次練熟數拍子,我唔唱 畀你架啦!)

\*Reflection:

Teacher can play the same part with student to push her to play in faster tempo.

### Lesson 3

(11:15)

Student played her part of duet.

(12:00)

Teacher marked the beats on the score for bar 4 to 5.



(15:45)

Student and teacher then played the same part together in faster tempo. Teacher just conducted some difficult parts when student was playing.

(17:27)

Student played in faster tempo.

Teacher and student played the same part together.

(19:30)

When they played duet, teacher asked student to play repeatedly for rhythmic accuracy in certain part.

Teacher sang the melody part from bar 13 till the end.

Teacher marked the beats from bar 13 to the end.

(22:45)

Teacher told student to count the beat and play in faster tempo if she want to play duet with teacher next lesson.

\*Reflection:

Teacher may sing the melody for student to keep her pulse steadily with rhythmic accuracy.



Lesson 4

(5:30)

Teacher and student played student's part together with faster tempo with teacher's conducting.

(8:00)

When they played duet, teacher sang the melody in some difficult parts.

(11:00)

Teacher marked the double eighth notes in bar 12 on the score.

Teacher sang the melody for student's part from bar 12 till the end.

(12:55)

Student was able to play according to dynamic marking.

(16:20)

Teacher praised student after she played in faster tempo.

### \*Reflection:

Student may play piano duet with her mother to maintain close family relationship and extend the learning outside the lesson.























2 AB 3395













7











6 AB 3395



## **Colors of the Wind**

from Walt Disney's POCAHONTAS Primo Music by Alan Menken Lyrics by Stephen Schwartz **Moderato** Arr. by Sharon Aaronson Play both hands one octave higher than written throughout. mf o think you own what-ev - er land you think the on - ly peo-ple who are You are the peo a dead thing you can who look and think like know ev - 'ry rock and tree and you walk the foot-steps of a earth is claim; peo - ple you, 10 life. name crea You 2 0 things you nev - er knew you nev knew. you'll learn stran

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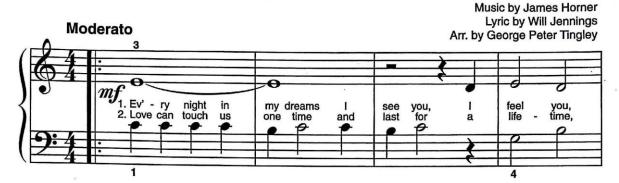


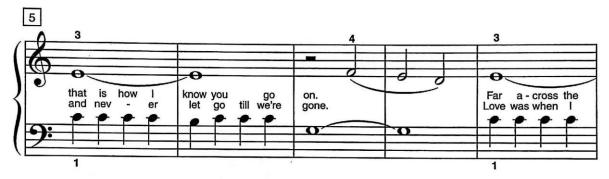
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Use after page 21 (47).

# My Heart Will Go On (Love Theme from 'Titanic')

from the Paramount and Twentieth Century Fox Motion Picture TITANIC





DUET PART (Student plays one octave higher than written.)





# **Colors of the Wind**

from Walt Disney's POCAHONTAS



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# **BOURRÉE**



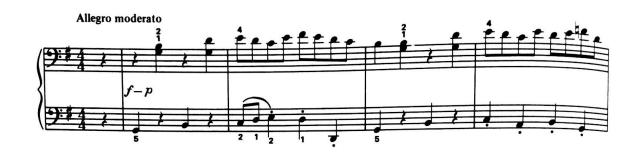




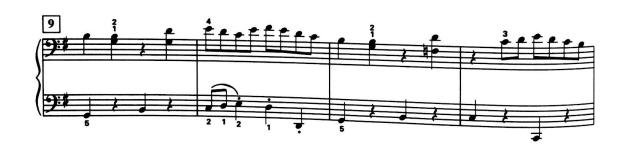


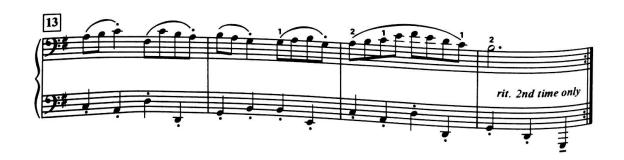
### **DUET PART** (Student plays 1 octave higher)

# **BOURRÉE**











### Appendix 4\_cross check

The musician doing cross check studied piano with Miss Nancy Loo and accompaniment with Dr. Mary Wu during her study at the Hong Kong Academy for Performing Arts. After graduated from HKAPA in 1993, she continued her study in the U.S.A. She received her Bachelor's Degree from University of Oklahorla and Master's Dree from University of North Texas. During her stay in University of North Texas, she had studied piano under Mr. Joseph Banowetz, Who is a regular guest pianist to Hong Kong.

She is recently a piano instructor in Hong Kong International Institute of Music. Besides teaching, she is also active both as a solo and chamber musician of classical & contemporary repertory.

#### #Round 1

### Pre-test

No.1: She played all the notes in the note value of crotchets.

No. 2: She played all the notes in the note value of crotchets. She did not follow the key-signature to play.

### Post-test

No.1: She played with accurate rhythm. She played crotchets, half note, and double eighth notes in accurate rhythm.

No. 2: Her playing is basically correct. She was able to play half note, crotchets, and double eighth notes with rhythmic accuracy, but with little delay from bar to bar.



### #Round 2

Pre-test

No. 2

She played all the notes in the note value of crotchets.

No. 30

She played all the notes in the note value of crotchets.

Post-test

No. 2

The rhythm is basically correct. But the doted fourth note is held too long, and there is delay from bar to bar.

No. 30

The forth note and double eighth notes are held too long. The dotted forth note in bar 2 is held too long time.

### #Round 3

Pre-test

No. 22

The rhythm is basically correct. There is delay while hands need to play together, for instance in bar 4. There is wrong note on left hand in bar 3.

No. 25

The rhythm is basically correct. Bar 1 restarted the third beat for 2 times to get right hand long notes with left hand staccato. Bar 3 second beat repeated to make it legato.

Post-test

No. 22

All rhythm is much secure, but still have pitch inaccuracy in bar 3. There is still delay in bar 1.

No. 25

Rhythm is accurate. Bar 1 3th beat right hand was not played in staccato, but student didn't stop and repeat. In bar 3 3<sup>rd</sup> beat, right hand stop and repeat to make legato.

### Appendix 5\_reward system for piano lesson

The reward system was set by researcher and research participant. If the research participant behaved in that week, including listening to teacher's instructions, reading the score by herself, holding proper hand shape, being polite to teacher, practicing adequately before lesson, the research participant could get one sticker from researcher. One gift would be given for the collection of five stickers.

If the research participant did not behave well or could not meet all requirements, no stickers would be given in that lesson. If the research participant had fatal mistakes or serious misbehaviour, for instance, did not concentrate during lesson, did not practice well, being impolite to teacher, one sticker would be deducted from her piano handbook.

## Appendix 5\_Reward system for piano lesson

Reward system		
Behave well every week	Not behave well	Fatal mistakes
	Or	Or
	Cannot meet all requirements	Serious misbehaviour
Listen to teacher's		Not concentrate during lesson
instructions		Not practice well
Read the score by herself		Be impolite to teacher
Play piano with proper hand		
shape		
Be polite to teacher		
Practice adequately before		
lesson		
1 Sticker for that lesson	No stickers will be given for	One sticker will be deducted
	that lesson	from piano handbook
5 Stickers = one gift		

Figure: Reward system for piano lesson