Instrumental music learning and self-efficacy in academic achievement in higher education in Hong Kong

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May 2017

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Abstract

This paper reports a study on the possible relationship between instrumental music learning and self-efficacy in academic achievement in higher education in Hong Kong. The study can helps understand how instrumental music learning affects students' self-efficacy in academic achievement. Also, although there are many types of research about the correlation between self-efficacy and academic achievement, few studies focused the above research components. A questionnaire survey was designed and employed as the major research tool to answer the following research questions: 1) What are the possible relationship between instrumental music learning and self-efficacy in academic achievement? 2) What are the differences of self-efficacy in academic achievement among students who have received instrumental music learning and who do not receive instrumental music learning? A total of 220 undergraduate students in Hong Kong from music or non-music majors were invited to participate in this study. They were required to complete the general self-efficacy scale (GSES) (Schwarzer & Jerusalem, 1995). Results indicate that a positive correlation between instrumental music learning and self-efficacy in academic achievement in higher education in Hong Kong. Instrumental music learning may help to enhance student's confidence of achieving higher academic achievement.

Introduction

Nowadays, it is rather popular for students to learn a musical instrument in Hong Kong. According to the research conducted by Ho (2009), the result of the questionnaire survey showed that only 493 out of 3228 respondents (15.22%) did not learn any instrument. 1017 students (31.40%) were learning two instruments and 505 students (15.59%) were even learning more than two. Instrumental music learning can be considered as a leisure activity, but is there also a relationship between instrumental music learning and academic achievement?

The definition of instrumental music education in the research topic means learning musical instruments with private instrumental tutors. Other activities such as learning recorder in school music lessons are excluded. Instrumental music education is rather popular in Hong Kong. Children start learning different kinds of instruments when they are small. Apart from learning musical instruments as an extra-curricular activity, many parents believe that instrumental music education can enhance children's development. According to a research (Forgeard, Winner, Norton, &

Schlaug, 2008), practicing a musical instrument may strongly enhance children's performance in fine motor skills, auditory discrimination, vocabulary, and nonverbal reasoning. Besides, these children would then have more opportunities to participate in many competitions and performances than those who never have instrumental music learning experience. Therefore, these two types of students would involve in this research project so as to compare their differences.

Self-efficacy is an important element in this research. Psychologist Albert Bandura raised the concept of self-efficacy. According to Bandura (1994), self-efficacy can influence people's lives and aspirations profoundly. Human behavior is related to their capabilities to influence events that affect them. If people believe that they have high capability to face challenges, they will have more incentives to undertake the risks. In contracts, people who doubt with their abilities would have lower aspirations to pursue the goal.

There were many similar works in this area. Firstly, a positive relationship was found between self-efficacy and music learning. The research conducted by McCormick and McPherson (2006) revealed that self-efficacy is an important predictor of students' achievement in the music examination. 686 participants were involved in this research. They were all going to have the Australian Music Examinations Board (AMEB) performance examination. The participants completed a questionnaire about their self-efficacy level on every part of the AMEB examination. The result showed that students can achieve meaningful improvements when their self-efficacy judgments were improved. The improvement level was around 1% to 10% depends on individual students.

Secondly, there was a positive relationship between music learning and academic achievement. According to the research (dos Santos-Luiz, Mónico, Almeida & Coimbra, 2016), the result revealed that music students had a higher score in different subjects such as Portuguese language and natural science. This study involved 110 participants. The data was collected once in their seventh grade and the other time in their ninth grade. The result also showed that within seventh grade to ninth grade, the academic performance of music students was more consistent than non-music students.

Thirdly, self-efficacy and academic achievement were positively related. A research conducted by Becker and Gable (2009) found out the relationship between

self-efficacy and Grade Point Average (GPA). Their research involved 194 students who receiving higher education. They were required to complete a questionnaire to measure their self-efficacy level. After data analysis, the result showed that students' self-efficacy level has "small to medium" effect to their academic performance, which is GPA.

However, it is difficult to succeed in finding a research about exploring the correlation between instrumental music learning and self-efficacy in academic achievement in higher education. In order to explore the correlation between instrumental music learning and self-efficacy in academic achievement, two research questions were raised:

1. What are the possible relationship between instrumental music learning and self-efficacy in academic achievement?

For the first research question, the discussion would base on the existing literature and research. Using the existed result from literature and research to list out the possible relationship between instrumental music learning and self-efficacy in academic achievement.

2. What are the differences of self-efficacy in academic achievement among students who have received instrumental music learning and who do not receive instrumental music learning?

For the second research questions, the discussion would base on the result of the questionnaire survey. The questionnaires were distributed to students who are studying in higher education. The participants from music major or non-music major needed to answer their Cumulative Grade Point Average (CGPA). Also, using the General Self-Efficacy Scale (GSES) (Schwarzer & Jerusalem, 1995) to measure their self-efficacy level. The result could reveal the differences among students who have received instrumental music learning and who do not receive instrumental music learning.

Literature Review

In 1982, the founder of social learning theory Albert Bandura raised self-efficacy theory from the perspective of social learning. The self-efficacy theory can explain the

causes of motivations in special circumstances. Self-efficacy is a subjective assessment of an individual's ability to perform a certain aspect of his or her ability to work. The results of the assessment will directly affect the behavior of a person's motives. Self-efficacy theory, once raised, has aroused great interest among motivational psychologists.

Albert Bandura (1986) argues that the outcome of the act does not only influence human behavior but also by the influence of self-behavioral and behavioral outcomes that are formed by human cognition. He found that even if the individual knows that the behavior will lead to a kind of result, but it is not necessarily for them to engage in such act or to carry out an activity. But first, to speculate that they have the ability and confidence to implement the action. This speculation and estimation process, in fact, is the performance of self-efficacy. The expectations of the results influence human behavior and more about the expectations of self-efficacy. Self-efficacy is a decisive factor in human behavior. By distinguishing expected expectations and performance expectations, Bandura created the concept of self-efficacy. The expected expectation belongs to the category of traditional expectation, which is the speculation of what kind of result a person will lead to, and the performance expectation is the subjective judgment of the individual's ability to carry out a certain behavior, that is, the ability to speculate on their own ability.

The function of self-efficacy is mainly to regulate and control behavior, and through behavioral regulation affect the behavioral results. According to Bandura (1997), self-efficacy regulates behavior mainly manifested in the following aspects:

1. Self-efficacy can affect people 's choice of behavior and behavior persistence. People with high self-efficacy tend to choose the tasks that are tailored to their abilities and challenging; and people with low self-efficacy on the contrary. The greater the self-efficacy of a person in one aspect, the greater the likelihood of success, and the more he will try to engage in these activities, the longer the duration of the new act will be. Otherwise, the person would escape those activities that he thinks he cannot do and the persistence of behavior would be worse.
2. Self-efficacy affect people’s effort and the attitude towards difficulties. Attitude is a positive or negative psychological inclination that people hold on things. As the implementation of the behavior of the psychological state of preparation, which dominates people in the process of memory, judgment, thinking and choice. People with a high degree of self-efficacy have more confident, courage to face

difficulties and challenges, believe that they can try to overcome the difficulties. Therefore, they will try to pursue and achieve their goals. On the other hand, people with a low level of self-efficacy will hesitate when facing difficulties and doubt on their abilities to finish the tasks.

3. Self-efficacy affect people's way of thinking and behavioral efficiency. People with low levels of self-efficacy are always worried that they will fail, entangle their thoughts on personal defects and potential difficulties. Leading to tension, low self-esteem, distraction, memory loss, and even produce helpless and feel at ease. Thus, affecting their actions and the formation of new acts and the performance of behavior, resulting in low capacity and behavioral efficiency. However, people with strong self-efficacy focus on actively analyzing problems and solving difficulties. When facing difficulties, they make use of their own thinking and problem-solving ability, to show high-quality behavioral efficiency.
4. Self-efficacy can affect people 's attribution method. Attribution is the reason of individuals explain and predict the results of others and their actions. People often attribute success or failure to four factors: effort, ability, luck, and difficulty. People with high level of self-efficacy often attribute failure to his own effort. And people with lower level of self-efficacy, often attribute failure to their own ability and talent is not enough.

Therefore, self-efficacy has a close relationship with students' learning motivation, academic achievement, quality improvement and ability development. In this research, it will only discuss self-efficacy in academic achievement.

It has been found that self-efficacy level can affect students' academic achievement. According to the research (Zajacova, Lynch, & Espenshade, 2005), self-efficacy is an efficient tool to predict students' GPA. They distributed a survey to 107 college students to measure their self-efficacy level. They used the result of their self-efficacy survey to predict students' GPA, accumulated credits and college retention. The conclusion revealed that self-efficacy is a reliable instrument to predict academic achievement. On the other hand, self-efficacy level can affect students' academic achievement. The following three research revealed the same result on the relationship between self-efficacy and academic achievement. Becker and Gable (2009) conducted a research to find out the relationship between self-efficacy and GPA. 194 university students involved in this research. Every student filled in a self-efficacy scale survey. The result showed that the students' positive perceptions of self-efficacy can progressively increase their GPA by 5%. Another research conducted by Yusuf (2011) also got a similar result. 300 undergraduate students were involved in the study.

The participants responded to a questionnaire about self-efficacy. The result showed that self-efficacy has a meditational role on the motivation of academic achievement. Also, there was a statistically significant effect on self-efficacy and students' GPA. Furthermore, the research of Khan (2013) also revealed the result of the positive relation between self-efficacy and academic achievement. 66 university students were involved in this study. The Academic Self-Efficacy Scale was used to measure students' self-efficacy level. The result was students' GPA has a positive correlation with self-efficacy.

Meanwhile, there is a correlation between self-efficacy and music learning. According to the research conducted by McPherson and McCormick (2006), self-efficacy is an effective instrument to predict students' music examination performance. 686 students completed the self-efficacy questionnaire one day before they took the Australian Music Examinations Board (AMEB) performance examination. The result showed that music students with high self-efficacy level would gain significant improvement while practices. It was because instrument players required self-discipline. For those who needed to complete the music examination, they have a higher desire to improve their skills before the examination. So that self-efficacy can predict music students' performance in the examination and also have a positive relationship between them.

However, when excluding the influence of self-efficacy, positive relationship between instrumental music learning and academic achievement still existed. The research conducted by dos Santos-Luiz, Mónico, Almeida and Coimbra (2016) revealed that the academic performance of music students was better than non-music students. 110 secondary school students participated in this study. They collected the data in their seventh grade and ninth grade. Music students scored higher than non-music students in overall subjects. Especially in Portuguese language and natural science. Also, they found that music students can maintain a more consistent academic status than non-music students within these years.

Many researchers found that music students have higher self-efficacy than non-music students. It was because they have a higher motivation to be a success. Clark (2013) conducted a research on study string student's self-efficacy. He found out that higher self-efficacy level's string students have higher order thinking skill and organization skill. Their practice strategies would change when they face difficulties. They also had a higher motivation on improving themselves when compared to string

students who have lower self-efficacy. Self-efficacy can be developed by mastery experiences (Bandura, 1997). Students' successful experiences can enhance their self-efficacy level while failures would erode it. Therefore, as music students were more likely to participate in performances and examinations than non-music students, the self-efficacy level of music students would be higher than non-music students.

Although many research proved that self-efficacy has the power to influence academic performance, not many evidence and research can find out the possible relationship between instrumental music learning and self-efficacy in academic achievement.

Methodology

The study examined the correlation between instrumental music learning and self-efficacy in academic achievement in higher education. The study included a self-report instrument which is General Self-Efficacy Scale (GSES) (Schwarzer & Jerusalem, 1995) to measure the self-efficacy. Participants' major, instrumental learning experience, and latest Cumulative Grade Point Average (CGPA) were also collected in the questionnaire.

Sample

The sample consisted N=220 university students, n=100 music major students (45.5%) and n=120 non-music major students (54.5%).

Data Collection Procedures

Before distributed the questionnaire, the researcher fully introduced the purpose, procedures and the confidentiality of the study to the participants. The participants were all voluntarily to complete the questionnaire. The participants were from different higher education institutions. The questionnaire was distributed in two ways, either distributed in person or complete in Google Document. Every participant needed to sign a consent form before filling in the questionnaire.

The questionnaire (Appendix) consisted two sections. Part A required students to fill in their major, instrumental learning experiences and latest CGPA. For latest

CGPA, it divided into six ranges including <2.0, ≧2.0 - 2.19, ≧2.2 - 2.49, ≧2.5 - 2.99, ≧3.0 - 3.39 and ≧3.4. The ranges were based on the honors classification of undergraduate degree programs in The Education University of Hong Kong (EDUHK).

Part B used the General Self-Efficacy Scale (GSES) to measure students' self-efficacy level. GSES was developed by Schwarzer and Jerusalem (1995). It contained 10 questions, measure the self-confidence level when individuals encounter setbacks or difficulties. The reliability of this instrument was between .75 and .91 in Cronbach's alphas. Originally, GSES used the 4-point Likert scale. However, in this research, a 7-point semantic differential scale (SDS) was used. After collected the data from the pilot test, the disadvantage of Likert scale appeared. When used the 4-point Likert scale, the answer could not represent students' attitudes accurately. Also, it was difficult to show out the distance between the four answers: not at all true, hardly true, moderately true and exactly true. Therefore, the GSES in this study used the 7-point SDS with adjectival opposites which were completely wrong and completely true. 7-point SDS without a neutral position can also force the participants to choose their expected dimensions (Al-Hindawe, 1996).

For confidentiality, all questionnaires were collected directly from the participants after finish the survey. No one was asked to change their responses after collected the questionnaire. Participants' names and student id were not required to collect in this survey.

Data Analysis

The participants in this research are university students from both music and non-music majors. The result of the research conducted by Santos-Luiz, Mónico, Almeida and Coimbra (2015) showed that there are differences between music students and non-music students. Therefore, there is a need to compare the data from these two groups of students. Four types of participants were involved and analyzed: First, music major students who received instrumental music education for more than ten years; Second, non-music major students who received instrumental music education for more than ten years; Third, non-music major students who received instrumental music education for less than ten years; Fourth, non-music major students who never received instrumental music education before.

Findings

A total of 220 university students responded to the questionnaire, with 100 music majors (45.5%) and 120 non-music majors (54.5%). Table 1 shows the statistics for instrumental music learning experience. 121 students (55%) had more than or equal to 10 years' instrumental music learning experience. 59 students (26.8%) had less than 10 years' instrumental music learning experience and 40 students (18.2%) had no instrumental music learning experience.

Table 1

Descriptive Statistics for Instrumental Music Learning Experience

Instrumental music learning experience	Frequency (N=220)	Percent
≧10 years	121	55
< 10 years	59	26.8
Never	40	18.2

Table 2

Statistics for Latest CGPA

Latest CGPA	Frequency (N=220)	Percent
< 2.00	0	0
≧2.00 - 2.19	2	0.9
≧2.20 - 2.49	9	4.1
≧2.50 - 2.99	81	36.9
≧3.00 - 3.39	109	49.5
≧3.40	19	8.6
Total	220	100

Reliability

The result in Cronbach's alpha internal consistency reliability index showed that this questionnaire survey is reliable. For the whole questionnaire, it scored .899. For the General Self-Efficacy Scale (GSES) part, it even scored .946. Therefore, this questionnaire was feasible and reliable.

Table 3

The T-test of General Self-Efficacy Scale (GSES)

Groups	Factors	Mean (SD)	T value	P value
Music	Solve difficult problems if try hard enough	5.35(.82)	4.96	.017
Non-music		4.70 (1.11)		
Music	Find the means and ways to get what I want	5.09(1.03)	4.96	.043
Non-music		4.38(1.11)		
Music	Stick to my aims and accomplish my goals	4.92(1.10)	5.09	.046
Non-music		4.08(1.34)		
Music	Can deal efficiently with unexpected events	5.01(.87)	4.59	.000
Non-music		4.36(1.23)		
Music	Know how to handle unforeseen situations	5.04(1.08)	4.40	.043
Non-music		4.36(1.21)		
Music	Solve most problems if invest the necessary effort	5.26(.91)	4.81	.005
Non-music		4.58(1.18)		
Music	Remain calm when facing difficulties	5.21(.93)	4.36	.001
Non-music		4.57(1.25)		
Music	Can usually find several solutions	5.11(1.01)	4.48	.011
Non-music		4.46(1.14)		

Music Non-music	Can usually think of a solution	5.07(0.90) 4.54(1.12)	3.87	.001
Music Non-music	Can usually handle whatever comes my way	4.93(1.04) 4.28(1.26)	4.24	.011

Table 3 shows the result of a t-test of General Self-Efficacy Scale (GSES). From table 3, all the mean scores of Music majors were higher than the ones of non-music majors, with the p-values smaller than .05. Therefore, there were significant differences between music major students and non-music major students on the self-efficacy level. The result implies that music majors are more confident in learning than non-music majors and their self-efficacy levels are higher than non-music majors.

There were two ways to calculate self-efficacy level by using the General Self-Efficacy Scale (GSES). First, it could sum up the points from the 10 questions. Originally GSES has used the 4-point Likert scale and the range should be from 10 to 40 points. However, a 7-point semantic differential scale (SDS) was used in this study so that the range should be from 7 to 70 points. People who got a high score in the GSES indicated more self-efficacy. Second, it could sum up the point from the 10 questions and then divided by 10 to find out the mean score. Originally the GSES mean from samples had been around 2.9. Since the scaling method in this study changed, there were no samples mean score to have a comparison. Therefore, the self-efficacy level in this study would use the first calculation method. To sum up the points from all questions and compare the differences between music and non-music students.

Table 4

Results of Music Major Students Who Received Instrumental Music Education for More Than Ten Years

n=97	Mean	
The sum of the GSES	51.0	
Latest CGPA	Frequency	Percent
< 2.00	0	0
≧2.00 - 2.19	0	0

≧2.20 - 2.49	3	3.1
≧2.50 - 2.99	34	35.1
≧3.00 - 3.39	51	52.6
≧3.40	9	9.3

Table 5

Results of Non-Music Major Students Who Received Instrumental Music Education for More Than Ten Years

n=24	Mean	
The sum of the GSES	48.0	
Latest CGPA	Frequency	Percent
< 2.00	0	0
≧2.00 - 2.19	0	0
≧2.20 - 2.49	0	0
≧2.50 - 2.99	5	20.8
≧3.00 - 3.39	14	58.3
≧3.40	5	20.8

Table 6

Statistics of Non-Music Major Students Who Received Instrumental Music Education for Less Than Ten Years

n=56	Mean	
The sum of the GSES	47.7	
Latest CGPA	Frequency	Percent
< 2.00	0	0
≧2.00 - 2.19	0	0
≧2.20 - 2.49	1	1.8
≧2.50 - 2.99	21	37.5
≧3.00 - 3.39	31	55.4
≧3.40	3	5.4

Table 7

Statistics of Non-Music Major Students Who Never Received Instrumental Music Education

n=40	Mean
The sum of the GSES	37.3

Latest CGPA	Frequency	Percent
< 2.00	0	0
≧2.00 - 2.19	2	5.0
≧2.20 - 2.49	5	12.5
≧2.50 - 2.99	18	45.0
≧3.00 - 3.39	13	32.5
≧3.40	2	5.0

Table 8

One-Way Analysis of Variance of Self-Efficacy Scores in CGPA

Source	*df*	*SS*	*MS*	*F*	*p*
Between groups	40	45.65	1.14	2.73	.00
Within groups	179	74.74	.42		
Total	219	120.38			

There was a significant effect of self-efficacy scores in CGPA at the p<.05 level [F (40,179) =2.73, p<.05].

Research question 1

What are the possible relationship between instrumental music learning and self-efficacy in academic achievement?

According to the existing literature and research, instrumental music learning can bring out many positive effects for people including enhancing people's self-efficacy. Music students have more opportunity to participate in music performances and examinations. According to Bandura (1997), mastery experiences were the most robust and perfect source to develop self-efficacy. Music students may face many failures while their practices. However, they have a strong motivation to be a success in performances and examinations. Therefore, when music students succeed in music performances and examinations their self-efficacy level would increase. As music students have more opportunity to develop self-efficacy, their self-efficacy level was higher than non-music students.

However, although non-music students do not have the chance to participate in music performances and examinations, they can participate in other activities to develop their self-efficacy. Therefore, non-music students can attend a high self-efficacy level when they gain more mastery experiences. It is possible that both music and non-music major's students have high self-efficacy level in academic

achievement. But when many of the researchers found out that music students have higher self-efficacy in academic achievement, the result of the questionnaire in this study is needed to find out is there any differences between music and non-music students in Hong Kong.

Research question 2

What are the differences of self-efficacy in academic achievement among students who have received instrumental music learning and who do not receive instrumental music learning?

Students who received instrumental music learning have higher self-efficacy level in academic achievement than students who never received instrumental music learning. Table 3 shows the result of a t-test of General Self-Efficacy Scale (GSES). All the mean scores of Music majors were higher than the ones of non-music majors, with the p-values smaller than .05. Therefore, there were significant differences between music major students and non-music major students on the self-efficacy level. The result implies that music majors are more confident in learning than non-music majors and their self-efficacy levels are higher than non-music majors.

In table 8, it shows the result of one-way analysis of variance of the score of self-efficacy in CGPA. There was a significant effect of self-efficacy scores in CGPA at the $p<.05$ level [$F(40,179) = 2.73$, $p<.05$]. The result implies that students' self-efficacy level would directly affect their academic achievement. Students who have higher self-efficacy level would gain better academic achievement than students with lower self-efficacy level.

According to the result from table 4 to 7, there were differences in self-efficacy among students who have received instrumental music learning and who do not receive instrumental music learning. Firstly, the sum of GSES from table 4 to 7 did not have great differences. The mean was 51.0, 48.0 and 47.7. And the median was 52.0, 49.0 and 48.5. However, the differences were big when compared to table 6.4. The mean was 37.3. Students who were a music major and received instrumental music learning had a higher level of self-efficacy than those who were non-music major and never received instrumental music learning.

On the other hand, same phenomena appeared in their latest CGPA ranges. The result of latest CGPA from table 4 to 7 showed that more than 50% of the students

gained 3.0 to 3.39 CGPA in the latest semester. In table 4, there were 51 students (52.6%). 14 students (58.3%) in table 5 and 31 students (55.4%) in table 6. However, for non-major students who never received instrumental music education, the greatest frequency was CGPA 2.5-2.99 in the latest semester, which was 18 students (45.0%). Only 13 students (32.5%) gained 3.0-3.39 CGPA in the latest semester.

To sum up, from the statistics of the questionnaire survey, self-efficacy has a correlation between students' academic achievement. Also, there were differences of self-efficacy in academic achievement among students who have received instrumental music learning and who do not receive instrumental music learning. Although no big differences between music major students and non-music major students who received instrumental music learning for 10 or less than 10 years, there were significant differences with non-music major students who never learn instruments before. It can be considered that students who received instrumental music learning, no matter it was more than 10 years or less than 10 years, their self-efficacy level in academic achievement were higher than students who never received instrumental music learning.

Discussion

This study is to reveal the possible relationship between instrumental music learning and self-efficacy in academic achievement in higher education in Hong Kong. It can help understand how instrumental music learning affects students' self-efficacy in academic achievement. In Hong Kong, many parents allow their children to learn instruments. According to the research conducted by Ho (2009), Within 3,243 primary and secondary students, only 493 (15.22%) of them responded that they never learned an instrument. There were many advantages of instrumental music learning. One of them was cultivated students' self-efficacy in different areas. As mentioned in the research (McPherson & McCormick, 2006), music learners required regular practice to improve their skills. Music students had a strong desire to improve themselves and willing to be a success in the examinations or performances. When they built up their musicianship, their self-efficacy level would also increase.

From the result of the questionnaire survey in this study, students' who received instrumental music learning had a higher self-efficacy level when compare to those never received instrumental music learning. The mean of the self-efficacy level of non-music students who never received instrumental music learning was 37.3. But the

mean self-efficacy level of music students who received instrumental music learning for more than 10 years was 51.0. It was a great difference between them. This result verified the research result of McPherson and McCormick (2006).

According to the research of Becker and Gable (2009), Yusuf (2011) and Khan (2013), self-efficacy was a reliable tool to predict university students' academic performance and also proved that there was a positive correlation between self-efficacy and academic achievement. From the result of the questionnaire survey in this study, it also revealed that students with high self-efficacy would more likely to gain a better academic performance. The mean of GSES of non-major students who never received instrumental music education was 37.3. The highest frequency of latest CGPA range was 2.5-2.99, which were 21 students (48.8%). However, the highest frequency of latest CGPA range was 3.0-3.39 for students' who were a music major or received instrumental music learning. The result verified that students with a higher self-efficacy level would more likely to gain a better academic achievement.

Music students have a higher self-efficacy level maybe because of they have strong motivation to be a success. Self-efficacy can be developed by mastery experiences (Bandura, 1997). Music students would face failures while their practices. However, hard-working music students would learn from the experiences and work harder to improve themselves. Music students have a strong desire to perform well in music examinations and performances. Therefore, music students are more likely to have higher self-efficacy than non-music students as they have stronger desire to have higher achievement in music. Their successful experiences in music performances can develop their self-efficacy.

Conclusion

This study investigates the possible relationship between instrumental music learning and self-efficacy in academic achievement in higher education in Hong Kong. As shown in the result of the questionnaire survey, instrumental music learning may help to enhance the confidence of getting the better academic achievement. However, instrumental music learning was not the only factor that can affect self-efficacy in academic achievement. In this study, the scope of the study was limited and therefore it was hard to discuss other factors. This study can only have revealed the positive correlation between music learning and self-efficacy in higher education academic achievement.

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Appendix

Questionnaire

Part A:

Please tick the most appropriate response.

1. Major: ☐ Music ☐Non-music
2. Instrumental music learning experience: ☐≧10 years ☐ < 10 years ☐ never
3. Latest CGPA: ☐<2.0 ☐≧2.0 - 2.19 ☐≧2.2 - 2.49 ☐≧2.5 - 2.99 ☐≧3.0 - 3.39 ☐≧3.4

Part B:

Several situations are described below. Please circle the appropriate one.

	Completely wrong						Completely correct
4. I can always manage to solve difficult problems if I try hard enough.	1	2	3	4	5	6	7
5. If someone opposes me, I can find the means and ways to get what I want.	1	2	3	4	5	6	7
6. It is easy for me to stick to my aims and accomplish my goals.	1	2	3	4	5	6	7
7. I am confident that I could deal efficiently with unexpected events.	1	2	3	4	5	6	7
8. Thanks to my resourcefulness, I know how to handle unforeseen situations.	1	2	3	4	5	6	7
9. I can solve most problems if I invest the necessary effort.	1	2	3	4	5	6	7
10. I can remain calm when facing difficulties because I can rely on my coping abilities.	1	2	3	4	5	6	7
11. When I am confronted with a problem, I can usually find several solutions.	1	2	3	4	5	6	7
12. If I am in trouble, I can usually think of a solution.	1	2	3	4	5	6	7
13. I can usually handle whatever comes my way.	1	2	3	4	5	6	7

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