Music Experience and Achievement of Students in Thai Public, Private, and International Schools

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ABSTRACT

For decades, music education in Thailand has been neglected. Music is often perceived as a form of entertainment rather than an important subject for students to learn in school, because parents do not believe that music can provide their children with vast career opportunities or financial security. Therefore, schools in Thailand tend to prioritize core subjects, such as math, science, and languages over music. As a consequence of this belief, music education in Thailand is still underdeveloped in many areas. Disparities in quality and access are major problems in Thai music education. Students' music opportunity varies greatly depending on individual backgrounds, schools, and family socioeconomic status causing great differences in student music achievement. The issue has been recognized by Thai music educators and music teachers. Nevertheless, minimal research attempts have been made in order to better understand this situation.

The purpose of this study was to assess student music achievement, understand students' music experience relative to the level of music achievement, and explore relationships between student music achievement and possible influential factors, such as teachers, schools, curricula, students' background characteristics, and students' life experience. An explanatory-sequential method was chosen in order to acquire both empirical and in-depth data. In the first phase, the quantitative phase, the *Middle School Musical Achievement Test* (MMAT) and *High School Musical Achievement Test* (HMAT) were administered to participants (N = 310) from seven schools in the Bangkok area. One-way between-group ANOVA and Welch ANOVA revealed significant differences in the mean total scores between public school, private school, and international school participants. Post hoc comparisons revealed that public middle

school participants scored the highest and differed statistically from international school participants who scored the lowest in this level. International high school participants scored the highest and differed statistically from participants in private high schools who scored the lowest in this level. Aside from the mean total scores, MANOVA revealed significant differences in mean subset scores – music theory, general knowledge of music, and music in social context. Post hoc comparisons determined that, for music theory, public school participants scored the highest in both middle school and high school levels and differed statistically from the lowest groups – international middle school and private high schools. For general knowledge of music, public school participants also scored the highest in both levels and differed statistically from the lowest groups – international middle school and high school. For music in social context, international school participants scored the highest in both levels and differed statistically from the lowest groups, which were public middle and public high school

The second phase, the qualitative phase of the study, was informed by a case study of multiple bounded systems. Interview participants (N = 11) included six students and five teachers representing five schools recruited during the quantitative phase. Three themes emerged from the integrated results. First, students begin their own musical pathways. Second, families bring assets and support. Finally, schools provide opportunities that can fill in the gap of what students lack. Recommendations for future research included expanding the research scope to rural schools and concentrating on one particular school music program for in-depth and thorough investigations.

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<p align="center">I am strong.
I am invincible.
I am "me"</p>

DEDICATION

To grandfather Chukiat Piyakhun – you made the impossible journey possible. I wish you lived to see my success. I want to make you proud. Somewhere over the rainbow, I hope you know.

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CHAPTER I

INTRODUCTION TO THE STUDY

[The] Philosophy of Thai music education has not been established. According to the conceptions of ordinary Thai people, music is not art or discipline. It is only another kind of entertainment. This idea has affected the development of music education in a negative way (Suttachitt, 1987, p.47).

Background for the Study

A belief has long existed in Thai society that music is not a discipline. It is only another form of entertainment. Music has been perceived as a non-necessary subject for students to learn. As Suttachitt (1987) – a music education professor at Chulalongkorn University – suggested, this belief has affected the development of Thai music education in a negative way. Although the statement above was written decades ago, the current situation has not improved much. As a consequence of this belief, music education in Thailand is still underdeveloped in many areas.

I consider myself privileged that I have had a chance to experience educational systems of two very different countries. Thailand is the place where I was born and raised, and it is where I completed my compulsory education. The United States is the place where I chose to pursue higher education degrees. After years of studying and working in both countries, I have noticed that the issues of "equity" and "equality" differ greatly between American society and Thai society. Here in the United States, an awareness of equity and equality is much stronger than it is in my own country, especially when it comes to education. Although my American colleagues might argue that there are some serious issues in American education that require improvement, I still

believe American students are in a much better place compared to Thai students. The gap among rural, suburban, and urban communities in the United States is considerably smaller than it is in Thailand. The degree of equity and equality in the United States is much better than it is on the other side of the world. According to the *International Monetary Fund* (IMF) in 2017, Thailand had a GDP of US$455 billion, while the United States had a GDP of US$19,485.4 billion (Shaeffer, 2018). These numbers prove that the United States is significantly wealthier than Thailand. Moreover, Thailand was ranked by the *Global Wealth Report Databook* in 2016 as the world's third most unequal nation with 1% of the Thai population estimated to own nearly half (46.5%) of the country's total assets. The country was labeled in a recent report as the second most inequitable nation in Asia when it came to socioeconomic disparities with 12.6% of the population living below the poverty line. Children from the richest decile of the population had sixteen times more educational opportunity than those from the poorest, and the bottom 10% of households earn an average of 4,300 baht or approximately $143 US dollars per month.

As a developing country, Thailand continues to present a lack of development and insufficiency in many other areas beside economics. Education is one of them. The issues of educational equity and equality present problems in its system up to the present. The Thai educational system has several problems that have not been solved for decades. Disparities in quality and access were some of the major problems. While students in Bangkok and urban areas perform fairly well academically, the same cannot be said for students attending rural schools. Data revealed that, in 2013, 27,000 Thai children (6.27%) could not read at all while 127,800 students of Grade 3 had to take remedial

classes to improve their reading skills (Naew Na Online, 2013). Soemsak (2009) also reported similar results. He reported that the O-Net (Ordinary National Education Test) 2015 results for Grade 6 students from seven provinces bordering Cambodia revealed that students from these seven provinces performed the lowest, especially compared to students from Bangkok area.

There are important factors that influence the Thai educational systems. Those factors are primarily controlled by schools: for instance, teaching quality, teachers' preparation, and curriculum. These factors vary depending on location and certainly contribute to the inequity and inequality of the Thai educational system. As previously stated, the differences among rural, suburban, and urban communities are remarkable. Thailand is a place where people who have more money automatically receive a better life quality and more opportunities. Education is no exception. Students who come from wealthy families often receive an elite education, while those who come from indigent families only receive the bare minimum. Unfortunately, Thailand is a place where having more money means having privilege. The issues of educational inequity and inequality are obvious in our society, and they prevent Thai students from receiving equal chances to succeed academically. Only a handful are fortunate enough to receive a quality education that efficiently enhances their skills, knowledge, experience as well as providing opportunities that foster growth.

Need for the Study

Access to Music Education

Similar to general education, the issues of inequity and inequality are outstanding in Thai music education. In the case of music, the problems are even more severe.

Because music is perceived as a non-necessary subject for students to learn, it is easy for school administrators to overlook the quality and the effectiveness of music teaching. Schools sometimes make decisions to hire non-certified music teachers (Pinjapo, 2014; Po-ngern, 2017; Sirikul, 2003; Yimpluem, Wattanachaiyot, and Chonwirojana, 2013). Nowadays there are a limited number of colleges and universities in the country that offer music education programs, which results in a limited number of music education graduates. Thus, music teachers who are currently teaching in public, private, and international schools may not have the educational background or preparation courses that can support their pedagogical and curricular decision making (Sriyapphai, 2000). In addition to the lack of post-secondary music education programs, music education programs that already exist may not be relevant to the teaching situation in modern Thai society (Hallinger and Lee, 2011). Although there are other factors, such as curriculum and policies that can add up to the overall success in music education, teachers still remain the key factor (Jang, 1988). The inconsistency in teaching quality can certainly negatively impact students' learning.

Curriculum

Curriculum is the foundation of any educational program and is another factor that can affect student learning achievement. The Thai educational system fails to provide appropriate music curriculum content that is suitable for the students of modern Thai society (Suttachitt, 1987). In the case of Thai music education, most Thai public and private schools follow *the Basic Education Core Curriculum 2008* (Thai Ministry of Education, 2008). Contents and standards presented in the curriculum are primarily knowledge based, promote transmission learning, and are heavily influenced by Western

Classical Music. Benchmarks found in this curriculum focus on learning activities that are knowledge driven with directions, such as read, describe, specify, and distinguish. With this limitation, Thai students are prevented from practicing their analytical, creative thinking, and critical thinking skills. Furthermore, the emphasis on Western Classical music creates a disconnect between school music and music that students are involved in outside of school, causing students to lose interest in school music. Beside public and private schools, a similar situation occurs in international schools as well. Generally, international schools in Thailand adopt Western curricula in order to distinguish themselves from Thai private and public schools and to promote their English-speaking environment. Speaking from my experience working as a full-time music teacher at a Thai-international school for over eight years, implementing Western curricula in Thai music classroom does not necessarily provide better learning outcomes. Since Western curricula are designed by scholars who come from different cultures and hold different values, the contents and standards of Western curricula are usually not relevant to students of Thailand. Students fail to connect school music to music of their own experiences (Goble, 2013). In this circumstance, students are more likely to lose their interest and motivation to study school music, which can potentially lead to poor academic performance.

The issue of music curriculum presents problems not only in K-12 education but also in higher education. Similar to K-12, Thai music education curricula at the post-secondary level emphasizes heavily Western Classical music with little emphasis on other musical genres. Music education curricula at the collegiate level also focus heavily on subject matter mastery rather than pedagogy, especially child-centered teaching

(Hallinger and Lee, 2011). Examples can be found in the music education curricula of the two major Thai universities: Chulalongkorn University (CU) and Srinakharinwirot University (SWU). Located in Bangkok, both universities are considered top-ranked in various departments including music. Music education curricula of these two universities present similar structures. Both programs are five-year programs. Students of these universities are required to take similar courses and credits to graduate (173 credits for CU and 165 credits for SWU). However, both institutes devote the majority of their curricula to subjects related to Western Classical music. The attempt to bridge the gap between institutional music and out-of-school music is very minimal.

Student Background and Experience

Besides the school factors, students' backgrounds and experience can affect their success or failure in music. Thai students represent diversity in various dimensions depending on the locations and types of schools they attend. There are three basic types of schools found across the country: public, private, and international. These schools offer distinctive options to students and parents. Public schools in Thailand are known for their affordable tuition fees, high standards of discipline, and diverse school communities, which represent the reality of Thai society. Private schools are famous for their strong academic foundation, positive environment, and opportunities to build social connections. International schools are known for their use of Western curricula, English-speaking community, international opportunities, and the highest tuition fees among the three types of schools. Students who attend and graduate from these schools share certain characteristics. For example, it is common for students of Thai public schools to come from lower socioeconomic status families since the tuition fees are cheaper (approx. $120

- $1,290 per semester). Thus, their opportunities can be quite limited. On the other hand, students of private and international schools may not encounter the same limitations since they tend to come from families with higher SES. International school students, especially, are more privileged because these students usually come from wealthy families who can afford the high tuition fees – approx. $9,600 - $32,260 per semester (campus.campus-star.com, 2019). Because of the high tuition fees, international schools can provide better resources, facilities, and lower student-teacher ratios. International school students are also provided with great music opportunities outside of schools due to their family privilege. Those opportunities include private lessons, ensembles, and owning musical instruments. These factors certainly put international school students in an advantaged position. Such advantage is a factor that can contribute to student music achievement. Limitations with respect to access, teacher preparation, curriculum, and student background and school contexts as described here have created inconsistencies in music education in Thai schools.

Purpose of the Study and Method Overview

The purpose of this study was to assess student music achievement, understand students' music experience relative to the level of music achievement, and explore relationships between student music achievement and possible influential factors, such as teachers, schools, curricula, students' background characteristics, and students' life experience. An explanatory-sequential mixed method was chosen in order to acquire both empirical and in-depth data. The design involved two phases: the assessment of student music achievement and the follow-up interview to further explain the assessment results. According to Creswell & Creswell (2018), mixed-methods design is a pragmatic

approach that allows researchers flexibility and the ability to tailor their research methods to fit the research questions. The core value of the mixed-methods design is that the combination of both methods works to enhance the overall quality of data. It also provides researchers an opportunity to expand their findings beyond the limitations and biases that reside in either quantitative or qualitative inquiry.

In phase I of the study, I created music achievement tests based on *the Basic Education Core Curriculum 2008,* which were administered to middle school and high school students enrolled in music class, music elective class, or who participated in after school music programs in selected public, private, and international schools in Bangkok. The test consists of three subsets: music theory, general knowledge of music, and music in social context. In addition to the achievement test, students were asked to complete a demographic and background questionnaire in order to provide additional information to assist in developing interview questions and for selecting the sample for phase II. In phase II of the study, selected students who represented low achievement and high achievement were asked to participate in individual interviews. In addition to students, music teachers from participating schools were also interviewed. The interview portion aimed to explore how students describe their experience in the school music program relative to their own level of achievement and to obtain key information regarding schools and school music programs. Interview questions focused on students' perception of the achievement test, students' perception of school music learning, students' perception of their music teachers, and both in-school and out-of-school experiences that contribute to their music achievement. As for the teachers, interview questions focused primarily on the structure of music program, school features, student characteristics, and

level of support from school administrators. Data from the phase II were used to understand the relationships between student music achievement and other possible influences; e.g., teachers' qualification, school music curriculum, students' background characteristics, and students' life experience.

Research Questions

In order to define the study, several questions have been raised:

1.   Is there a significant difference among the total scores of the music achievement test for students who attend public, private, and international schools?

2.   Is there a significant difference among the scores of each subset – music theory, general knowledge of music, and music in social context – for students who attend public, private, international schools?

3.   How do students describe their music experiences, inside and outside of school, relative to their own level of music achievement?

4.   How do students' music background and school experience relate to their music achievement?

Theoretical Framework

Social Justice

The current study was conducted through the lens of social justice. As previously stated, the severity of inequity and inequality among different classes of the Thai population is outstanding, not only in Thai music education, but also in Thai society as a whole. The situation reflects faults in Thai social stratification in which the gaps among upper class, middle class, and lower class are severe (Global Wealth Report, 2016). Social justice relates directly to this present study because it is a concept originally

centered around equality among people along various social dimensions (Chappelow, 2019).

Social justice is a notion of fairness and the right relations between the individual and society and can be viewed as a form of what is generally referred to as distributive justice (Jorgensen, 2016). In this sense, social justice focuses on making certain of the common good – the fair share of wealth and benefits among members of society. Social justice also concerns access to justice in every area of life including education, economics, culture, and politics.

Social Justice in Education

Larson (2010) stated in her study about adventure education and social justice that critical theory is the basis for creating socially responsible programs in any venue of education, because it signifies educational practices that focus on knowledge achievement while enhancing human freedom. However, in the real world where social injustice still exists, it is challenging for teachers, educators, and policy makers to deliver such ideal outcomes. Social justice in education is, by no means, a new movement. A great number of people who work in the field of education are well aware of the educational inequality and inequity among poor, middle, and wealthy economic classes (Cho, 2017). Thus, social justice in education aims to bring the gap among classes in society closer together, give students access to the quality education that they deserve, and also provide them with an equitable distribution of resources (Larson, 2010). Social justice in education also refers to the type of education that meets the specific needs of individual students rather than trying to satisfy social norms and school expectations. This process allows all groups of students to participate equally and enables them to

fulfill their own desired pathways, despite the life limitations that they may encounter (Harrison & Clark, 2016).

Social Justice in Thai General Education and Music Education

Unfortunately, education was not inclusive and accessible to all Thai students. In prior decades, the only type of education that was funded by the Thai government was elementary school, which meant that education at the pre-school level, secondary school level, and higher education were not free for Thai students (Fry, 1983). In 2009, under the leadership of Jurin Laksanawisit, the Minister of Education from the Democrat Party, the "fifteen-year free education" policy was introduced to the Thai people (Ministry of Education Thailand, 2020). As a part of this policy, the Thai government agreed to fund tuition fees, textbooks, basic school supplies, school uniforms, and in-school extra-curricular activities from kindergarten to high school. The project was a start toward social justice in Thai education. However, several problems arose through the formulation process, implementation, and the end results. Those problems included miscommunication among policy makers, school administrators, teachers, and parents; insufficient and unrealistic budget; unclear disbursement regulations; unclear reimbursement policy; extra administrative works for teachers; and falling achievement test scores (Effanot & Todla , 2012). These problems caused dissatisfaction among parents, teachers, and school administrators. Thus, many schools – especially larger schools in the Bangkok area – withdrew from the program. Only small schools in the rural areas still remain.

After the government change in 2011, little was done in terms of students' access to education. The political climate in Thailand during this period was nothing but tense.

Education was neglected and was no longer the priority of the Thai government. The "fifteen-year free education" policy was left undone and unresolved. The steps towards social justice in education have not moved forward much since then. Only hope remains that, someday soon, the political circumstance in Thailand will be stable enough for the government to take education concerns seriously.

Jorgensen (2016) asserted that social justice in education can be viewed as the right to schooling. Specific to music education, Jorgensen stated that it is ensuring that music education is available equitably and that particular individuals are not disadvantaged or excluded from instruction. Furthermore, Philpott & Kubilius (2016) stated that social justice in the music education involves making sure that all students are able to take part and ensures that a wide variety of musical knowledge and is fully embraced. Considering these scholars' words, Thai music education is not a good representative of social justice. Thai music education has gone through a similar situation to that of general education. A part of it is because of an old belief that music not necessary for students. As a result, music has been neglected for decades. In fact, music was not even considered a required subject in Thai schools until 2008 when *the Basic Education Core Curriculum 2008* was enacted (William & Trakarnrung, 2016). Once again, under the leadership of Jurin Laksanawisit, the national core curriculum was refined. Music and the arts were included in curricular requirements for the first time. It was a hopeful time for music educators and teachers. Unfortunately, that was the only time music teachers and educators experienced such positive transformation. Since the government change in 2011, no significant development has been done in the area of music education.

Significance of the Study

Clearly, inequity and inequality in Thai music education are issues that should not be overlooked. I am aware that these issues are too big for a single person to change or for which to find appropriate solutions. However, through the research process, I am determined to provide updated and in-depth data, interpretation, and analysis related to the area of student music achievement. Factors related to Thai student music achievement were investigated, which could be a step toward recognizing educational injustice in Thai music education. I am hopeful that this present study can become useful for future researchers as well as to bring an awareness to Thai policy makers and authority figures.

Little has been done in terms of research regarding Thai music education. Yuthavong (2018) asserted that the status of research and development in Thailand is still weak compared with developed countries. Thailand is a middle-income country with low research and development expenditures. The low numbers of research studies contribute to weaknesses in the Thai educational system. Consequently, there are very limited data that provide adequate information about the current situation in classrooms, policies, outstanding issues, or trends. Even basic demographic information is not always available.

Limitations

Limitations of this present study came from difficulties in conducting international research. The process of data collection was done in Thailand within a limited time period (approximately five months). Within this time frame, I was unable to complete interview for all seven schools I recruited during the quantitative phase. Therefore, the qualitative portion relied on interviews from the five schools I could

successfully contact. Another limitation was the process of contacting schools in Thailand. In order to get permission to conduct a research study in Thai schools, personal connections were crucial. Even with correct paperwork and good research intentions, some school administrators would still not allow a researcher to use their schools as research sites.

The next limitation resided on the weaknesses of *the Basic Education Core Curriculum 2008* and the extent to what numbers could measure in arts education. *The Basic Education Core Curriculum 2008* served as a foundation of the music achievement test which was the quantitative research instrument of the present study. The curriculum content emphasized academic music rather than the performance. Therefore, the assessment I created based on this curriculum is missing a key piece: the assessment did not include the performance aspect of music. As already stated, the purpose of this study was to assess student music achievement, understand students' music experience relative to the level of music achievement, and to explore relationships between student music achievement and possible influential factors, such as teachers, schools, curricula, students' background characteristics, and students' life experience. I believe music achievement involves both knowledge and artistic skills. Music is an art form that is presented by sound. Without incorporating the performance aspect, this study might not be able to capture the most accurate results of what is considered music achievement.

Keywords and Definitions

To gain understanding of the research questions, keywords and definitions must be addressed.

Equity, for this present study, refers specifically to education. Educational equity means giving students what they deserve in order to be successful. It also means being inclusive to everyone despite their cultural difference, classes, or socioeconomic status (OECD, 2014).

Equality, for this present study, refers specifically to education. It is the state where all students are treated the same way. Equality also refers to the fairness in terms of students' opportunity and right to develop to their best potential.

International schools are the newest type of school and charge the highest tuition fees of approximately $9,600 - $32,260 per semester. International schools were established in 1950s exclusively for the children of expatriates and only opened to Thai nationals in 1990. International schools are famous for their use of Western curricula, English-speaking community, international opportunities, desirable resources, and smaller teacher-student ratio.

Ministry of Education (MOE) is a Thai governmental body responsible for the oversight of education in Thailand. The Ministry of Education was established by King Rama V (Chulalongkorn) in 1892 as the Ministry of Public Instruction. Later in 1941, the ministry changed its title to the Ministry of Education.

Music achievement is students' ability to accomplish learning standards based on the *Basic Education Core Curriculum 2008.* There are three main categories of music

knowledge expected of students at specific levels in the curriculum: music theory, general knowledge of music, and music in social context.

Private schools in Thailand are schools owned by non-government organizations, which can be churches, commercial associations, or others from the private sector. Tuition fees for private schools are generally higher than those of public schools but cheaper than international schools. Private schools are famous for their strong academic foundation, positive environment, adequate resources, and opportunities to build connections.

Public schools in Thailand refer to schools that are owned and operated by the appointed government ministry. This type of schools is known for the lowest tuition (approx. $120 - $1,290 per semester) and the most diverse school communities. Thai public schools can be divided into four subcategories according to the size of student population: extra-large, large, medium, and small. Public schools in Thailand are well known for standards of discipline.

Thai Classical music is a musical genre that existed primarily before the political revolution in 1932. Important characteristics of Thai Classical music include pentatonic melodies, techniques that are transmitted aurally, improvisation, flexible pitches, and flexible rhythm.

The Basic Education Core Curriculum 2008 is the most recently refined version of the national core curriculum of Thailand. The curriculum aims to provide Thai students with the essential knowledge and skills required for them to live in a rapidly and constantly changing society. Through this curriculum, students are taught to become knowledge seekers and continue their lifelong development beyond their time in school.

CHAPTER II

REVIEW OF LITERATURE

This literature review focuses on information regarding the context of the study as well as providing in-depth information through related literature in order to enhance readers' understanding of trends in research. The chapter is organized chronologically in two main sections. The first section is a brief history of music and education in Thailand. In this section, I present the historical background relating to general education in Thailand, characteristics of music in Thai society and its evolution through time, and historical development of music education including *the Basic Education Core Curriculum 2008*. The second section is the contemporary context for music education in Thailand. In this section, I provide detailed information regarding the structure of the Thai educational system, structural inequality in the Thai system, music education research in Thailand, and student achievement in music.

Brief History of Music and Education in Thailand

The history of Thai education can be traced back to the Sukhothai Kingdom (1238-1438), the earliest capital of Thailand. Education at the time of Sukhothai existed mainly in the palace, temples, or within families (Pornprachatham, 2004). Teaching subjects included languages, vocational training, and morals. The first significant effort relating to education began during King Ram Kham Haeng the Great – the third king of the Sukhothai Kingdom – through the inscription on the Ram Khamhaeng stele. The stele was composed in 1292. It contained King Ram Kham Haeng's partial biography and limited information about the Sukhothai Kingdom. Despite its vagueness, the Ram Khamhaeng stele is great evidence of Thailand's earliest literature.

The situation was similar in the Ayutthaya Kingdom (1350-1767), the second capital of Thailand. Thai education still occurred mainly in the palace, temples, and within households. There were no proper schools for children and adolescents to attend. However, education of the Ayutthaya Kingdom gradually developed and became more systematic compared to the Sukhothai Kingdom. For instance, reading and writing were prioritized. The first Thai language textbook, Jinda Manee, was created and used extensively. Around the end of Ayutthaya period, Western technology and knowledge were introduced to Thai people (H. R. H. Princess Maha Chakri Sirindhorn, 2018), when the first Western country – Portugal – visited Thailand. Although their main purpose of visiting Thailand was evangelism, the Portuguese also brought with them science, culture, and knowledge, which were beneficial to the local people. For the first time, Thai people were introduced to subjects, such as astronomy, geography, Western architecture, and Western medication (Saranukromthai.or.th, 2019).

In 1767, Burmese forces captured and sacked the Ayutthaya Kingdom. The inhabitants and treasures were moved to Burma. Almost all art treasures, achievements, and historical records were destroyed and left in ruins (Fry, 2018). Fortunately, the Burmese rule lasted only a few months before Phraya Taksin – a capable military leader – began his effort to reunite the country. After his success, Phraya Taksin established Thonburi as the third capital of Thailand and was crowned King Taksin of Thonburi Kingdom in 1768. King Taksin's reign lasted less than two decades (1767–1782). King Taksin himself was executed due to his personal religious belief, economic turmoil, famine, and corruption among officers.

After the execution, Chao Phraya Chakri – the former supreme general of King

Taksin – was crowned King Rama I the Great. His first decision as a king was to move

the capital city to the other side of Chaophraya river, the major river of Thailand, to the

area which soon became Bangkok. King Rama I the Great, then, established the

Rattanakosin Kingdom and initiated the Chakri Dynasty which continues in Thailand

until today (Fry, 2018). King Rama I spent most of his time restoring political and social

systems from wars. At that moment, education was not a priority. It was not until the time

of King Rama III that education was brought back to the plan. King Rama III

commanded an inscription of Thai letters to use as a foundation of the official Thai

language. He also commanded a revision of Jinda Manee, the first Thai textbook created

during the Ayutthaya Kingdom and also added a few more textbooks for Thai language

teaching. Moreover, the first Thai publishing house was constructed, increasing

significantly opportunities in literacy for the Thai people (King Rama III

Commemorative Foundation, 2016).

In the early nineteenth century, under King Rama IV's reign (1851-1868), the

Thai people were introduced to medicine, ship building, and formal education through the

arrival of missionaries whose intention was to pursue both sacred and secular activities

(H. R. H. Princess Maha Chakri Sirindhorn, 2018). Education further developed with an

emphasis on science because of the influence of the West. In 1874, Presbyterian

missionaries established the Wang Lang School, the first private school for girls. Later,

the school became Wattana Wittaya Academy, which continues to run today. In 1852,

another private school for boys called Bangkok Christian College was established by

Protestant missionaries. This time was also the beginning of social evolution in the

country since Western culture quickly became popular by the endorsement of the King. The social evolution in Thailand, from very close traditional beliefs and customs to a more open and Westernized society, began near the end of the King Rama IV regime when the King and the ruling class embraced and introduced new concepts of Western art and science. The new concepts further developed through treaties between Thailand and England, and continued on throughout King Rama V and King Rama VI respectively (Prapakdee, 2017)

Another factor urging Thailand to change was the powerful Western colonization spreading across South East Asia. Thailand was in a vulnerable position. There was a vital need for Thailand to modernize the country according to Western standards as a strategy to avoid being colonized. Western art and science became representatives of civilization. The idea of "being civilized" and the major threat of colonization urged Thai people to make changes. Thai tradition, culture, values, and even the daily lives of Thais during that time were influenced by Western culture and standards. Education was no exception. The first official movement regarding education occurred under the reign of King Rama V the Great, changing Thai education from informal to formal, with education becoming more accessible to all (H. R. H. Princess Maha Chakri Sirindhorn, 2018).

History of General Education in Thailand

King Rama V the Great (1868-1910) declared the first education reform movement. The king foresaw the needs for an organized and systematic education. King Rama V the Great stated that, as a part of becoming a "civilized" country, Thai children and youth must be cultivated both intellectually and morally through the educational

system (Prapakdee, 2017). This movement was considered a foundation of Thai education. The education reforms included continuous projects regarding the development of curricula, standards and regulations, faculty, staff, and administrative structure. A great number of schools were established during this time, providing more access to education for Thai children and adolescents, e.g., temple schools, Western style schools, the Military school, and the Royal Pages School. Students were also encouraged to study English since King Rama V the Great realized the significance of language as a tool for global communication. Furthermore, selected students were rewarded with scholarships to study abroad with one specific purpose – to bring back the knowledge and skills learned from Western education and use them to develop their mother country (H. R. H. Princess Maha Chakri Sirindhorn, 2018). Later in 1887, King Rama V the Great established the Department of Education, which became the Ministry of Education in 1982. The first educational plan was launched in 1989 with a significant change in the organizational aspect of Thai education. General education, for the first time, was classified into four levels: preprimary, primary, secondary, and higher education.

After King Rama V the Great passed, King Rama VI continued his father's wish to develop Thai education. The first university of Thailand, Chulalongkorn was established in 1917. In 1921, four years later, the Compulsory Primary Education Act was proclaimed indicating that Thai children aged between 7 – 14 must complete a compulsory education (H. R. H. Princess Maha Chakri Sirindhorn, 2018). An educational subsidy program allowed Thai children access to a free primary education. The subsidy money was collected from Thai citizens in order to pay for all expenses involved in

primary education. The free primary education campaign still remains, with different rules and conditions to fit modern Thai society.

The most significant and memorable change of the country occurred in the 30's, during the reign of King Rama VII. From Sukhothai, to Ayuttaya, to Thonburi, to the early Bangkok, Thai Kings were above all the laws. The Kings were the absolute rulers with supreme power and authority that could not be questioned or challenged by anyone. However, in the early 30's, the middle class was hard hit by the world economic crisis. A small group of anti-royalists blamed King Rama VII for the cause of this crisis. In 1932, this group of anti-royalists including military personnel and civilian leaders seized control of the country and changed Thailand's government from an absolute monarchy to a constitutional one (Fry, 2018). Since then Thailand has become a democratic country with the king as a head of the state (Moro, 2004).

The next important movement regarding education in Thailand occurred in 1999 when the legislature passed the 1999 National Education Act (NEA). Advanced and rapidly growing information technology demanded major reform in Thai education. The key principles of the 1999 National Education Act included equal rights and opportunities for twelve years of basic education for all including twelve years of free schooling, student-centered teaching, decentralization of educational administration, lifelong education, standards and professional development, quality assurance, and government's commitment of budgetary support. These policies are still effective until today with minor changes in some features (H. R. H. Princess Maha Chakri Sirindhorn, 2018).

Music in Thai Society

After the political revolution in 1932, the influence of the Western models became even stronger. It was the government's intention to create a modern Thai culture that moved away from any traditions that were tied with the image of the royal family. Such symbolic movement happened in all aspects of Thai lives, e.g., the language, food, clothing, education, communication, science, and the arts. Western models were promoted in all features, changing Thailand ways that had never happened before. People were urged to modernize and standardize things. As for music, the sound of the west became more familiar to the ears of Thais. Before the 1932 revolution, the musical genre predominantly performed, taught, and enjoyed was Thai Classical music. Thai Classical music was performed extensively in all Kingdoms. It was performed in ritual ceremonies, religious ceremonies, for public entertainment, as well as private entertainment.

In 1934, two years after the revolution, the government moved the court musicians and performers who used to work under the King's patronage to the new Department of Fine Arts, under the management of Luang Wichit Watakarn – a nationalist figure and one of the first Western style composers in Thailand (Moro, 2004). Later on, in the 1940s, under the leadership of the first head of the Music Division within the Departments of Fine Arts – Montri Tramote – another movement regarding music occurred. Original Thai Classical music was modified to fit in the Western model. Songs were notated on staff. New instruments were introduced. The transmission of music was moved from an aurally transmitted to a written tradition (Roongruang, 1999). The sounds of the Western harmony and melody were presented to Thai people's musical palates. From then, the "sound" of music in Thailand has gradually changed from the traditional

Thai Classical music to the sound of the West. Thai Classical Music has been neglected. It only exists nowadays mostly as a subject to preserve (Tiangtrong, 2013).

Music Education in Thailand

Historical Development of Music Education

The arrical of Western Culture and the idea of being "civilized" also implacted music education in Thailand. Like general education, early music education did not happen in a formal context. Music was a subject taught within households. It was a master-apprentice type of education. As previously mentioned, the musical genre predominantly performed, enjoyed, and taught in Thailand – before the political revolution in 1932 – was Thai Classical music. Traditionally, Thai Classical music teachers would operate from home. Students were the ones who traveled. Once accepted by a teacher, a student would move into the teachers' residence and began learning musical skills while helping out with the household chores as payment for lessons. Music was not a subject necessarily taught in formal educational institutions. Musicians' households were the primary music schools that offered lessons to students who were interested in becoming professional musicians (Campbell, 1995).

The first evidence of music being included in the curriculum was in 1895 as a part of the education reform movement of King Rama V the Great. Curriculum content, from 1895 to 1978, varied depending on the government's policies of certain time periods. Curriculum content for music in the past was mostly associated with patriotism, religion, and monarchy. However, one common trait could be found among those music curricula, that is, no standards or benchmarks indicating stages that students were supposed to reach

at certain levels. Only broad topics and guidelines were provided as teaching aids for music teachers (Charoensook, 2001).

It was not until the early 2000s that music gained significance and was recognized as a part of child development. In 2001, an act of parliament stated that people of Thailand should live their lives holistically, that is, to live morally, knowledgeably, ethically, and culturally. Music was included as a factor that could enhance such holistic life from an early age. Music was perceived as a tool to cultivate conscious minds of youngsters. It was also used as a tool to promote the country's traditional art and culture, which was also the educational policy of that time (Charoensook, 2001).

To follow the act of parliament, the Ministry of Education during the time declared an experimental application of *the Basic Education Curriculum 2001* in its pilot and network schools. Implementation was mandated and effective from the academic year 2003 onward. The Office of the Basic Education Commission (OBEC) was appointed as directly responsible to follow up and evaluate the application of this curriculum. The results indicated both positive and negative outcomes. Positives included decentralization of educational authority to the local communities, allowing each educational institution to cater lessons to meet their distinct needs. Negatives were found in both application process and outcomes. One of the problems was the confusion and misperception faced by teachers and school administrators due to the unclear documents and the lack of preparation. Another issue was the fact that measurement and evaluation did not correlate with the curriculum standards, creating discrepancies between the actual level of learning achievement and certification. Furthermore, students' acquisition of essential knowledge, skills, and desirable characteristics were indicated as the problems

occurring from the implementation of the Basic Education Curriculum 2001 (Thailand Ministry of Education, 2008).

The Basic Education Core Curriculum 2008

As a result, the Office of the Basic Education Commission (OBEC) agreed to revise *the Basic Education Curriculum 2001* and came up with an updated version of the curriculum, that is, *the Basic Education Core Curriculum 2008* – the most recent curriculum developed and recommended by the Thai Ministry of Education for all schools to use. The revised curriculum shared the main features of *the Basic Education Curriculum 2001* with adjustments designed to improve and overcome reported problems. Areas of improvement include curriculum visions, students' significant capacities, desirable characteristics, learning standards and relevant indicators, and evaluation criteria that correlate with learning standards. The main goal of this updated curriculum was to provide a high-quality education to Thai children and adolescents in regard to gaining essential knowledge and skills that are necessary for the constantly changing society, as well as providing essential skills for children to continue their learning beyond the school years. Thai Ministry of Education authorized the implementation of *the Basic Education Core Curriculum 2008* at the beginning of academic year 2009 and onward (Thailand Ministry of Education, 2008). Since then the curriculum has been implemented by most public and private schools across the country.

As for music, the Thai Ministry of Education sent out a survey questionnaire to selected pilot schools prior to the time of educational reform in 1999. Music teachers from the selected school answered the survey and gave their opinions on the curriculum structure, curriculum content, standards, and benchmarks that were appropriate for each

grade level. After the survey was collected, the results were analyzed. The new model was proposed and included as a part of *the Basic Education Curriculum 2001*, which later became *the Basic Education Core Curriculum 2008*. This version of the music curriculum is still recommended for use in music classrooms through the present (Marcato, personal communication, October 31, 2019).

Both positives and negatives were reported several years after *the Basic Education Core Curriculum 2008* was implemented. Seesamer & Khanto (2012) conducted a follow-up study using survey questionnaires. Participants of this study were 166 school administrators and 608 teachers from public schools of Khon Kaen Educational Service Area 4. According to the results, participants reported high levels of curriculum implementation. Participants also indicated that the curriculum was well-designed with clear goals and expected learning outcomes. However, several problems were found when the curriculum was actually implemented. First, the curriculum practitioners did not have a thorough understanding of the curriculum and its functions. The second problem was the lack of preparation and training. Insufficiency of resources to support learning units and activities as indicated in the curriculum comprised the third problem.

Similar results were found in the study of Nillapun et al. (2015). Participants of this study were school administrators, teachers, and educational supervisors from 555 pilot schools. Data analysis of this mixed methods study included focus group interviews, individual interviews, content analysis, and summary statistics. Results from this study indicated that *the Basic Education Core Curriculum 2008* was thoughtful and well-written in terms of its vision and goals. However, four main issues were raised by the

participants of the study. The actual content in the curriculum did not align with or support the real conditions of Thai classrooms, especially those in the low socioeconomic schools. Local cultures were not included enough in the curriculum content. Inadequate preparation on the curriculum practitioners' side, caused confusion and misinterpretation of the curriculum. Finally, the curriculum content was only knowledge based, promoted transmission learning, and emphasized only on lower levels of Bloom Taxonomy's learning objectives; e.g., knowledge recognition and comprehension.

Contemporary Context for Music Education in Thailand

This section focuses on the contemporary context for music education in Thailand. In this section, I provide detailed information regarding the structure of the Thai educational system, structural inequality in the Thai system, music education and research in Thailand, and student achievement in music.

Structure of Thai Educational System

To better understand this present study, it is vital to establish the context and provide basic information regarding the structure of the Thai educational system. The structure of the Thai educational system can be classified in two ways: by genres and by levels of education. Genres in the Thai educational system refer to education by its settings. The first genre is formal education. Formal education services are provided to those within the schooling system, from basic to higher education as well as in general and vocational tracks. The second genre is the nonformal education, which offers services to diverse target groups, such as a Certificate in Vocational Education, short-course vocational training program, and interest group program or professional development. The third genre is informal education, referring to the individual learning at their own

convenience. Examples of informal education in Thailand include library, museum, community learning centers, village reading centers subdistrict health offices, and subdistrict agricultural offices. Informal education also comes in the form of local wisdom or local media passing through knowledge and culture from generation to generation (Jangdecha, C. & Larpkesorn, P., 2018).

The second way of classifying the Thai educational system is by the level of education. There are two main levels: basic education and higher education. According to the 1999 National Education Act and additional government policy, twelve years of free basic education was made available to students throughout the country. Later in 2009, this policy was extended to fifteen years including preschool. Basic education includes preschool, elementary, lower secondary, and upper secondary. Higher education is provided by universities, colleges, community colleges. The current compulsory education requires that Thai children must complete six years of elementary education (grade 1 – 6) and three years of lower secondary education (grade 7 – 9). The upper secondary (grade 10 – 12) and higher education, on the other hand, are optional (Jangdecha, C. & Larpkesorn, P., 2018).

Public, Private, and International Schools

Public, private, and international schools are considered formal education in Thailand that provide basic education from pre-school to upper secondary. These three types of schools offer distinctive options to students and parents. There is also a high degree of diversity when it comes to student demographics among public, private, and international schools. Thus, students and alumni from these three types of schools feature

different characteristics and interests. Information about public, private, and international schools in Thailand is provided and discussed in the following section.

Public Schools

Public schools in Thailand refer to schools that are owned and operated by an appointed government sector (Cholpaisan, 2010). Of all the schools, public schools are known for the lowest tuitions (approx. $120 - $1,290 per semester) and the most diverse school communities (campus.campus-star.com, 2019). As a part of enforcement by the Thai Ministry of Education, some public schools offer students free primary education with only minimum charges for school supplies and essentials. However, that does not mean – because of the affordable tuitions – that public schools would produce low-achieving students. According to the National Institute of Educational Teaching Service (NIETS), two students from public schools ranked the top two for the 2016 O-NET (Ordinary National Educational Test), a standardized test used to measure student achievement on standards in *the Basic Education Core Curriculum 2008* (National Institute of Educational Testing Service, 2016).

Thai public schools can be divided into four subcategories according to the size of student population. Small public schools consist of 1-120 students. Medium-sized schools consist of 121-600 students. Large public schools consist of 601-1,500 students. Extra-large public schools contain 1,501 students and above. Small public schools are usually located in the remote areas and face economic problems such as inadequate resources, lack of academic personnel, and poor learning environment (Thai Ministry of Education, 2019). On the other hand, extra-large public schools are located mostly in Bangkok or other big cities. Extra-large schools tend to produce more high-achieving students

because of their advantage in terms of opportunities, location, and more budget funded by the government.

Private Schools

Private schools in Thailand are schools owned by non-government organizations, which can be churches, commercial associations, or other private sectors (Cholpaisan, 2010). Tuition fees of private schools are generally higher than those of public schools. As mentioned in Chapter One, private schools are famous for their strong academic foundation, positive school environment, adequate resources, and opportunities to build connections. Therefore, parents who decide to spend more money and send their children to private schools are usually those with higher household income. These parents expect private schools to provide their children with a top-quality education, better learning environment, premium resources, and qualified teachers. These are the factors that Thai parents believe can lead their children to better career opportunities and financial security in the future (Makchiew, 2015).

Cholpaisa (2010) reported interesting results in his study, "Choices between Private and Public School of Thai Household". This quantitative study examined factors that influence the choice between private and public secondary school choices in Thailand using quantile regression, analyzing preexisting data from Program for International Student Assessment (PISA) and Index of Durable Goods Procession. Cholpaisa claimed in his study that parents who send their children to private schools were parents with moderate to high household income, whose children were not necessarily high-achieving students. It could be implied from this study that Thai parents believed private schools had the ability to improve their children's academic performance

and overall achievement. Therefore, if money was not a problem, private schools were better choices for their children. Unfortunately, not all students could have access to elite private schools. Even though the parents could afford the tuition, famous private schools, especially large to extra-large institutions in Bangkok area, were extremely competitive. Admissions were challenging and could put a lot of pressure on both children and parents without any guarantee that the children would be admitted (Raksapakdee & Charernkul, 2015).

International Schools

Among these three types, international schools are the newest type of school and charge the highest tuition fees of approximately $9,600 - $32,260 per semester (campus.campus-star.com, 2019). International schools were first established in 1950's exclusively for the children of expatriates. In 1990, the government decided to allow Thai nationals to attend international schools. Since then, international schools have expanded dramatically due to the high demands of Thai parents (Amornwich, 2018). International schools are famous for their use of Western curricula, English-speaking community, international opportunities, desirable resources, and smaller teacher-student ratio. Parents of international school students are those with high socioeconomic status. Leepakpreeda and Sutamuang published a study called "Motivation for Thai Parents for Sending Their Children to International Schools in Bangkok Area" in 2012. Participants of this quantitative study were 400 parents from 11 international schools in Bangkok. According to the results from the survey questionnaire, Leepakpreeda and Sutamuang suggested the factors that parents considered before sending their children to international schools included: the emphasis on English, a school environment that encouraged

students to be confident and proactive, internationalism, and opportunities for their children to live and study abroad. Unfortunately, international schools are not for all consider the high tuition fee.

Structural Inequality in Thai System

Education is a process of providing an individual the opportunity to gain knowledge and qualities enabling that person to survive and be useful to self, family, and society. It is also a foundation of national development (H. R. H. Princess Maha Chakri Sirindhorn, 2018 ch.12). As formerly stated in Chapter One, the inequality among classes in Thailand is outstanding, not only in music education, but also in the society as a whole. Education was only one aspect of the country's inequality. Fry and Apahung (2018) published a mixed methods study called Regional Educational Disparities in Thailand as a part of a book – "Education in Thailand: An Old Elephant in Search of a New Mahout." The study aimed to assess the current condition of regional educational disparities and to identify key variables possibly explaining these differences in educational quality among the provinces of Thailand. Quantitative data of this study were obtained from various existing sources including the O-NET test scores, percent of the labor force with college degrees, percent of the adult population in the province with college degrees, average educational level in the province, percent of students dropping out of primary education before completion, and success of students in gaining admission to Mahidol University and Chulalongkorn University. Based on these data, Fry and Apahung indicated a coefficient alpha of 0.78 between seven indicators – percent of adults with a college degree, percent of labor force with a college degree, average years of schooling, success in gaining admission to Chulalongkorn University, success in

gaining admission to Mahidol University, average scores on the O-NET, percent of schools – and the index of educational quality. Based on the coefficient alpha, the researchers revealed the respective rankings of various provinces with respect to educational quality. All the top-ranking provinces were located in the central places and metropolitan areas including Bangkok, whereas the lowest ranking provinces located in the disadvantaged Northeast and deep South. Furthermore, the lowest scoring province was also Thailand's poorest province economically. The next phase of this study involved interviewing Thai educators from the remote provinces. Five factors contributing to educational disparities were identified: poverty, inadequate learning materials and funding, inadequate teacher coaching and mentoring, lack awareness of modern teaching techniques, and lack of educational resource and learning centers.

Another article regarding educational inequality in Thailand was published in 2016 by Pisanyabutr, *Educational Inequality: A Conclusion from PISA Examination*. According to Pisanyabutr, the average years of schools of the working age population in Thailand was 7.3 years, which was considerably lower than the average years of schools of developed countries (11 years). Furthermore, Pisanyabutr reported four factors found to impact educational inequality in Thailand. Those factors were schools 47%, families 9%, students 2%, and the remaining 42% was unobservable factors, e.g., local culture and individual upbringing. At this moment, no organization was appointed directly to deal with the issue of educational inequality in Thailand. It was clear that, in order to move forward, Thailand needs a stronger policy, system, and, perhaps, a specific organization that could provide greater access to qualified education for children and adolescents.

Sangmahamad (2017) published a study associated with the educational inequality in Thailand, "Disparities in Education: Social Quality in Thai's Views". This quantitative study aimed to investigate public opinion on the disparities in several dimensions and to understand the factors that influenced disparities in education in Thailand by analyzing the results from the Citizen Survey on Life and Society conducted by King Prajadhipok's Institute between October 2014 to March 2015. According to the results of this study, income and property were the most inequal aspect in Thai society. The factors affecting people's opportunities to access education were discrimination within the society, inequality of income and property, and dissatisfaction with education, gender, age, and location. Sangmahamad also reported that the average years of schools of Bangkokians were 11 years, while the average years of schools of provincial people were 7.5 years. Bangkok is not only a capital city but is also known for being center of many areas including economic, technology, healthcare, transportation, international relations, media, arts, and education. Unfortunately, these advantages were still limited to the city. Although the government showed continuous efforts to improve the educational system, most of the benefits still went to large educational institutions and higher education, which are located mainly in the capital city.

Sangmahamad (2017) raised another issue regarding disparities in education and financial status among lower class, middle class, and upper class. According to the statistics, 82.3% of the Thai population had only a primary level of education, when 67.3% of the upper-class population and only 3.5% of the lower-class population graduated with bachelor's degrees. The author suggested the possible association between one's financial status and the level of education. Since primary education was

more accessible and affordable, it was not surprising to see that the majority of Thais not being able to go above and beyond that level. Under-privileged students might not have choices but to attend more affordable and free education, while those who came from middle- or upper-class families had opportunities to attend more premium schools as well as to pursue higher education.

Further evidence of the educational inequality in Thailand is related to the national budget allocation. Ironically, since 2008 – 2018, Ministry of Education has been in the top five of all ministries that received the highest percentage of national budget. In 2019, Ministry of Education received the highest percentage of budget, which was 16.33% or 489,798,574,500 Thai bath or approximately $15,799,954,016 US dollars (Bureau of the Budget, 2019). Clearly, education was a priority for Thai government. However, the problem lay within the budget allocation, poor management, and careless planning. As shown by Bureau of the Budget, Thai government presented continuous efforts to improve the quality of the education. However, large amounts of funding went to higher education and large educational institutions with little left for the small schools and rural schools. Consequently, education for the lower-class population remained unimproved (Kitratpon, 2012). Thai government tended to prioritize higher education, leaving behind basic education especially in the remote areas of the country (Amornwich, 2018).

Music Education Research in Thailand

Education and research are related in the sense that the latter requires learning experience and the former gains from new knowledge. Research studies have both direct and indirect relationships with education. Research studies conducted in graduate schools

have been taken as an indicator of university quality and enhance the reputation of the university. Research studies also reinforce a good educational system. Unfortunately, Thailand is a middle-income country with low research and development expenditures. The status of research and development in Thailand is still weak compared with developed countries. Consequently, low numbers of research studies contribute to weaknesses in Thai educational system (Yuthavong, 2018).

Despite the limited numbers, a study called Synthesis of Research Theses in Music in Thailand During 2005 – 2014 by Treetip Boonyam was published in 2017. The purpose of this study was to investigate, synthesize, and summarize music/music education theses and dissertations from graduate music programs in Thailand. The researcher investigated research studies found on the ThaiLIS Database between 2005 – 2014, which were the years that Thai universities began to offer graduate music programs. ThaiLIS is the first official Thai database founded by the Office of Higher Education Commission of Thailand that is open for public use. It allows researchers access to data from all academic institutions in the country. Boonyam took this opportunity to explore the numbers of music/music education theses and dissertations produced during those selected years, research methods, research topics, and the areas that require further improvement.

Boonyam (2017) reported that there were 218 music/music education theses and dissertations found on ThaiLIS. Of all those theses and dissertations, 164 were qualitative studies and 54 were quantitative studies. The quantitative studies focused on aspects such as teaching formats and techniques. Methods used were primarily experimental (31.5%) and survey questionnaire (24.1%). Only a few mixed method studies were found (1.9%).

Boonyam also pointed out several weaknesses in the area of quantitative research. The first weakness was the fact that summary statistics was used more frequently than inferential statistics, which affected the ability to generalize the results. The second weakness was the narrow range of research topics. According to Boonyam, most research topics concerned with unit analysis or practice analysis rather than exploring broader concepts in music education such as problems and trends. Surprisingly, music/music education qualitative studies were found significantly more frequently on this data base. Boonyam reported in her findings that 164 studies were labeled as qualitative. Topics of these qualitative studies involved with historical and cultural document analysis, bibliography review, composition review, composition analysis, and Thai Classical music. Data collection of these studies included interviews, observations, documents, and artifacts. However, data analysis was not clearly specified in the majority of these qualitative studies (48%). Of all qualitative studies found on this database, 22% of researchers claimed to use typological analysis. The rest remained unknown. Thematic analysis involving codes, categories, and themes commonly used in social science research in the Western tradition was not found in any of these studies. It appears that the main problem with qualitative studies found on Thai database was the misinterpretation and misconception of what qualitative research really is. However, the definition and the scope of qualitative music research in Thailand is still ambiguous. There was no clear distinction among music disciplines to specify research traditions and methods whether it is music education, music theory, and musicology research.

Chiengchana (2007) conducted a similar study called *Synthesis of Research in Music Education: Analysis and Content Analysis*. The purposes of the study were to

develop a conceptual framework in the field of music education, evaluate and compare quality of research in music education, and synthesize characteristics of research based on content analysis. Data were obtained from 129 music education theses and dissertations conducted between 1973 – 2007. Of all studies selected, 34 studies were quantitative, and 67 studies were qualitative. Chiengchana also indicated that, out of 34 quantitative studies, 30 of them used only descriptive statistics and 4 of them used the inferential statistics. In terms of research topics, 77.4% of selected studies focused on music pedagogy, 5.4% was specified to music curricula, another 5.4% concerned with music relative to psychology, and 1.6% involved with music education administration. In terms of theoretical and conceptual framework, 78.9% of sample research did not specify either theoretical framework or conceptual framework while 6.2% of the sample research were conducted following Orff and Kodaly method. Interestingly, hypothesis statements could not be found in 45.7% of the selected research. At this point, it was evident that the major problem regarding music education research in Thailand was the lack of knowledge and experience in research method and practice. Moreover, the research found in this study were primarily master's level theses and only a small number of doctoral dissertations. This is, perhaps, another factor that impacts quality and method selected.

Student Achievement in Music

As a consequence of educational inequity and inequality described by Chiengchana (2007) and others, a great number of school music programs were insufficient and underqualified. Thus, disparities and the inconsistencies could be expected. Orchestras, ensembles, choirs, auditoriums, and music laboratories were common for international schools, while some provincial schools might not be able to

afford even a few proper musical instruments. Marching bands were famous among extra-large public schools. Students of such bands normally would own their instruments, were provided with fine uniforms, and regularly competed against other marching bands in highly competitive matches. Contrarily, students of small public schools outside of Bangkok might not even have experience in any types of ensembles at all. Elite private schools were known for being selective and hired only qualified music teachers with relevant degrees in order to maintain their great reputations. On the other side, music teachers of rural schools might not have educational backgrounds related to music at all. Most music teachers and musicians would center around Bangkok and other metropolitan areas because they were more opportunities available. It is an evidence of inequity and inequality of Thai society that calls for attention and change.

Music education, like general education, requires proficient teachers to achieve the desired goals. Although there are other factors that can add up to the overall success in music education, teachers still remain the key factor (Jang, 1988). Proficient music teachers should have relevant educational background and training, teaching competencies, fine musical skills, and should be able to evaluate and adapt according to the circumstance. It is vital for music teachers to perform above and beyond the curriculum standards, especially when resources are limited, and the curriculum itself does not support the real teaching situation. Several studies reported issues regarding music teachers in Thai schools. Kitrapon (2012) stated that there was a lack or unequal allocation of certified teachers especially in remote areas. Teachers were sometimes appointed to teach subjects that they were not specialized in due to this insufficiency.

Po-ngern (2011) conducted a study relating to an issue of music teachers in Thailand, "A Proposed Model of Organizing Music Learning Courses for Grade 4 to 6 Students." The purpose of the study was to investigate Thai music teachers' perceptions toward teaching content, pedagogy, assessment, and problems in G.4-6 general music class. Participants were 111 music teachers in Thai public and private schools. The demographic information collected from the survey questionnaire indicated that 64.9% of participants were college graduates with music degrees and 35.1% of participants were college graduates with non-music degrees. However, degree majors were not specified in the survey questionnaire. This could imply that, of all 64.9% of participants who held degrees in music, only some of them could potentially have degrees in music education. Some of them might have degrees in other related fields, such as music performance, Thai Classical music, or musical theater. According to results of this study, the majority of the participants indicated that they were able to cover all essential contents recommended by *the Basic Education Core Curriculum 2008*. Even though participants claimed that they were able to cover all essential contents based on *the Basic Education Core Curriculum 2008*, they reported "not feeling confident" teaching those topics. Participants of this study – especially those who graduated with non-music education degrees – rated music theory as the least knowledgeable topic to teach. Based on this information, issues of inconsistency and the lack of teaching competencies could be expected from school music programs across the country, since this study suggested that school music programs were sometimes run by teachers who did not have backgrounds in music education or proper training in music teaching at all.

Yimpluem & Honwirojana (2012) conducted a quantitative study using a survey questionnaire as a tool to explore the state of music teaching and problems suggested by music teachers under the Suratthani Education Service Area Office 3. Participants were 60 public-school music teachers. According to the survey questionnaire, 96.2% of music teachers who taught at schools under the Suratthani Educational Service Area 3 had bachelor's degrees. However, only 11.5% of those participants had bachelor's degree in music education. Results from the same study further indicated that 23.1% of those teachers did not have degrees in music education but participated in some music education professional development, and 1.9% of them studied music as their second major at universities. Participants also reported having low musical skills and knowledge. Yimpluem & Honwirojana suggested that this was, perhaps, the consequence of the old belief that music was not as important as the core subjects. Music was considered another form of entertainment. This belief had a negative impact on Thai music education because parents and school administrators tended to overlook the subject and did not want to invest in their music programs.

Pinjapo (2014) reported similar results in her study of "Music Teaching Problems of Schools under the Secondary Educational Service Area Office 31." The purpose of this survey study was to examine problems in music teaching of secondary schools in service area 31. Participants of the study were 52 music teachers from the area who responded to the survey questionnaire. In this study, Pinjapo found that teachers who served under the Secondary Educational Service Area 31 in Bangkok have limited skills and knowledge of music teaching due to their educational qualifications, because some schools under the

Secondary Education Service Area 31 appointed non-certified music teachers to run their music programs instead of hiring certified music teachers.

Similar results were found in a study of Sirikul (2003). The researcher reported that music teachers in Kalasin province who held music education degrees had a significantly higher level of readiness in teaching management, curriculum, classroom management, and assessment than those who did not have degrees in music education. According to the results of these studies, teachers' qualifications could affect the teachers' confidence, competencies, and their ability to make pedagogical and curricular decisions, which could potentially affect student achievement in the long run.

Beside teachers' qualifications, inadequate music resources were another factor that could potentially influence student music achievement. In the same study by Yimpluem & Honwirojana (2012), music teachers who responded to the survey questionnaire specified the needs for musical instruments, instructional materials, and media. They believed that, in order to succeed musically, resources were crucial. Participants also expressed their concerns regarding educational inequality of Thai society. Compared to large schools in the urban area, music teachers of the Suratthani Educational Service Area 3 believed that they were treated unfairly because the urban schools seemed to have adequate resources when the Suratthani teachers barely had anything for their students. As stated in the previous section, the large amount of funding normally went to higher education and large educational institutions first. Small schools, especially in the rural area, were left with small amounts of budget, which normally went to other departments perceived as more necessary to students than music.

Apart from music teachers' qualification and inadequate resources, irrelevant music curriculum was another factor that could potentially contribute to the failure of Thai music education. Curriculum is a fundamental to any educational programs that serves as a structure, guidelines, and success indicators for practitioners. Kraay (2012) stated that a well-rounded music education should expose children to every aspect of music, e.g., music theory, music history, improvisation, and composing. Good music education should allow students to experience music of other cultures as well as music from their own culture. It should also allow students opportunities to relate the music they make in class to the music they experience in their lives outside of schools. Otherwise, students would receive only a one-dimensional music education.

As previously stated, Thai schools have been recommended to use *the Basic Education Core Curriculum 2008*. General feedback regarding the curriculum was provided in the earlier section indicating both positives and negatives. As for music component, the negatives were more outstanding than the positives. One of the major concerns included the heavy influence of Western Classical music. The music component of this curriculum did not emphasize other musical cultures including Thailand itself. Only a small part was involved in Thai Classical Music in a very conservative manner. Another concern was the fact that this curriculum was last updated in 2008. Curriculum content of this curriculum was no longer appropriate for the time being. A combination of these two problems created a disconnect between school music and music outside of school. Consequently, students lost their interest and motivation to learn since they could not connect school music to music of their own experiences (Goble, 2013).

Manakronkovit (2005) conducted a survey study investigating students' opinions on the administration of school music program and curriculum. Participants were 225 secondary students attending a public school in Sing Buri province. According to the survey results, 84.89% of participants were interested in studying music. However, participants designated that music practice was more interesting than music theory. The participants also indicated that Western Classical music or the curricular music was not appealing to them but, perhaps, more suitable for higher education.

Rattanakhom (1999) conducted a survey study exploring music teachers' and school administrators' opinions toward music education focusing on four areas: the administration of school music program, music pedagogy, problems in school music program, and the roles of music in Thai society. According to the survey results, participants asserted that the curriculum was not relevant to modern Thai society and students' lives outside of school. Participants also indicated the disconnection between elementary curriculum and secondary curriculum as an issue that prevented students from achieving musically.

Although many studies were found related to the factors that contributed to the lack of success in Thai music education, studies relating to music achievement of Thai students could hardly be found. Due to the reports on various influential factors and the potential consequence, one may expect countless numbers of studies specific to student music achievement. Unfortunately, my search revealed only a few studies. Despite the limited quantity, several studies relative to Thai student music achievement were found on the ThaiLIS Database. Puasuriyan (2011) conducted a study focusing on relationships between 12th grade students' self-efficacy and their music theory achievement. The

purposes of this study were to investigate student music achievement, self-efficacy, and relationships between student music achievement and their self-efficacy perception. Participants were 59 twelfth graders who studied in music-concentrated program from selected public schools in Bangkok. Puasuriyan created a music achievement test based on music theory content presented in the music curricula of the participating schools. The achievement test consisted of 50 multiple choice questions (100 points in total) and was designed to fulfill only the lower level of Bloom's Taxonomy – knowledge, comprehension, and application. Once completed, the test was sent to Thai music educators and scholars to establish the validity before the actual data collection was conducted. The researcher indicated that the participants' music achievement scores were in a moderate level (M = 47.53, SD = 22.35). The music achievement scores were positively correlated with the self-efficacy ratings at the moderate level (r = .66). Factors contributed to students' self-efficacy included enactive attainment, vicarious experience, and verbal persuasion. According to the results, Puasuriyan suggested that students' level of music achievement and their self- efficacy were closely related. Thus, teachers and school administrators should promote self-efficacy in class by enhancing positive learning environment and motivational class activities.

Another study relating to student music achievement was conducted in 2013 by Mahutthanakulchai & Bhiasiri. This study aimed to develop Grade 7 student learning achievement in music subject by using the Direct Instruction Model. This study was an experimental research design focusing on an effect of the Direct Instruction Model on student music achievement and musical performance. Research instruments included lesson plans designed to support the Direct Instruction Model, music achievement test,

and music performance rubric. Results of this study designated positive outcomes for both components. The researchers claimed that, after twelve music lessons, participants' mean music achievement score was 23.73 or 81.06% of the full marks, which passed the prescribed criterion. Participants' average music practice score was 24.95 or 83.66% of the full marks, which passed the suggested criterion as well. This study by Mahutthanakulchai & Bhiasiri certainly manifested a good intention to improve the quality of Thai music education. However, the researcher did not provide enough information regarding the music achievement test, music performance criteria, preliminary data, and student demographic information. Without such information, it was difficult to evaluate the of quality and the credibility the study.

Beyond those studies found on the Thai database, one particular study from the U.S. was found that is closely related to the present study of mine. It was a mixed-method study by Hawkinson in 2015. This study aimed to investigate factors that prevent students from participating in school music program. According Hawkinson, students' personal perception was one of the factors that affect their choice of participation. Despite some cultural differences, this study provided in-depth information concerning factors that influence student's attitude beliefs, which lead to their act of decision-making on school music involvement. Hawkinson (2015) suggested that perception toward school music program, perception toward music teachers, and perception of students' selves as musicians had influences on students' level of school music participation. In the qualitative phase of the same study, the structure of school music program and personal perception emerged as having the most influence on students. Some students believed that the school music program was designed for those with strong musical backgrounds

and was not welcoming for students who came to the school with limited musical backgrounds. Some students labeled school music as being old-fashioned, boring, unappealing, and not student-centered. Other barriers include family influence, peer influence, money, schedule conflict, and other life priorities. Hawkinson's study was similar to the present study in the sense that researchers were curious about students' experience in school music. While Hawkinson focused on music participation, I focused on music achievement.

Unfortunately, qualitative studies that included students' voices and thoughts could not be found on Thai database. As presented in this chapter, most Thai music education studies focused mainly on quantitative indicators that contributed to students' success or failure in music. More information regarding student music achievement and their music experiences is crystalized through the research process of this present study with a hope that music education of the country will become more efficient and accessible to all students.

Chapter Summary

The history of Thai education can be traced back over seven centuries. During the old time, education was informal and occurred within families, through temples, or was reserved for royal family members in the palace. The arrival of Western culture and Westerners' attempt to colonize Thailand in the mid 19th century forced Thailand to modernize and standardize things according to Western standards. Education was no exception. Since then, Thai education appeared to be more systematic and formal. The Western culture also had a strong influence in Thai music. Musical preferences of Thais shifted from the Thai Classical music to the sound of the West. Likewise, music education of Thailand had also been impacted by the arrival of the Western culture. From a subject taught within households, music has become a part of curricula and is taught in formal educational institutes. Without a doubt, Western Classical music was the emphasis of the curricula, omitting Thai Classical music and other musical genres.

Despite the government's many attempts to reform Thai education, several problems still occurred. One of the problems involved the national curriculum, which was revised several times for the most effective outcomes. Still, several issues were reported regarding the latest version of the national curriculum, *the Basic Education Core Curriculum 2008*. The problems included curriculum practitioners did not have a thorough understanding, the lack of preparation and training for practitioners, and the lack of resources to support learning units and activities.

The structure of the Thai educational system was presented in order to establish the context of the present study. Thai education was classified into genres based on settings and levels based on degrees. The three genres were formal, nonformal, and

informal. Formal education included any type of education offered through schooling

system. Nonformal education included short-certified courses on special subjects or

skills. Informal education referred to individual learning at ones' own convenience

thought family and community members. The two levels of Thai education were the basic

and the higher education. Basic education was comprised of preschool, elementary, lower

secondary, and upper secondary. The higher education referred to universities, colleges,

and community colleges. The present study was conducted under the scope of formal and

basic education, that is, public, private, and international schools.

The situation regarding music education research in Thailand is reported as a part

of contemporary context Thai music education. Aside from the curriculum, another major

problem in Thai education was the low number and of research studies and the

inconsistent quality of the existing research studies. Education and research are closely

related and certainly affect each other. Unfortunately, the status of research and

development in Thailand was still weak when compared with developed countries. The

low number of research studies, without a doubt, contributed to weaknesses in the Thai

educational system.

As a consequence of the structural inequity, education was labeled as one of the

dimensions among the country's inequalities. Several researchers reported the disparities

in Thai education, which resulted from socioeconomics, lack of preparation, and lack of

resources. Specific to music achievement, teachers' qualifications and preparation were

reported frequently as factors that needed further improvement. This was followed by

inadequate music resources and inappropriate curriculum respectively

CHAPTER III

DESIGN AND QUANTITATIVE METHODS

This chapter defines the method used in the present study. A summary of a mixed method design and how it is used in the social behavior sciences research are presented first. Next, I present an overview of the explanatory sequential mixed methods design and discuss the rationale behind selecting this method. This is followed by a description of participants, the development of research instruments, pilot study, validity, and reliability. The next section presents detailed information concerning site selection, permissions, brief information regarding each research site. This is followed by sampling process of the main study, participants of the main study, quantitative data collection. Finally, the I present overview of data analysis of the main study. Further information regarding data analysis is presented in the following chapter.

Mixed Method Designs

The purpose of this study was to assess student music achievement, understand students' music experience relative to the level of music achievement, and explore relationships between student music achievement and possible influential factors, such as teachers, schools, curricula, students' background characteristics, and students' life experience. As a researcher, mixed methods design offered me the ability to examine the broad pictures as well as allowing me to gain in-depth information of the research topic. Mixed method designs have their history, which can be traced back since the beginning of 1900s

There are three types of research designs in social behavior sciences, e.g., quantitative, qualitative, and mixed methods (Tashakkori & Teddlie, 2003). Quantitative

researchers are primarily interested in factual knowledge through measurement and interpretation of quantifiable observations. Qualitative researchers, contrary to quantitative researchers, are interested in analysis of narrative data. They seek to understand meanings that individuals develop through their own experiences. The two methods are distinct from each other and represent different standpoints. Quantitative researchers are able to investigate subjects in a vast amount and obtain results that can be generalized and duplicated. The design, however, does not leave many opportunities for researchers to explore the meaning behind the numeric data. Qualitative research, on the other hand, allows researchers to dig deeper and evaluate subjects with greater detail. It is an open-ended process that gives researchers freedom to explore their research topics. However, due to the nature of qualitative sampling, a major drawback of this design is that the results cannot be generalized and duplicated the same way the quantitative results can. Also, another flaw of qualitative research is the fact that the quality of the data gathered in qualitative research is subjective and depends greatly on researchers' perspectives. Data that seem necessary to one researcher could be useless for another because of different viewpoints and interpretations (Gaille, 2017).

The evolution of mixed methods can be defined through the five moments in the history of qualitative research (Tashakkori & Teddlie, 2003). The first period, the traditional period, occurred between 1900-1950. Mixed methods studies from this period were considered as quantitative studies with extensive interviews and observations. The mixed method design was perceived as a great addition to research studies but did not receive a clear specification yet. The second period is the modernist or the golden age, 1950-1970. During this period, there was a deflating of positivism causing an emergence

of research design called "multimethod." Although the mixed methods design was not yet established as a field, researchers began to realize the importance of this alternative approach.

The next two periods are the blurred genres (1970-1986) and the crisis of representation (1986-1990) (Tashakkori & Teddlie, 2003). These two periods represent the time when qualitative methods and constructivism reach their highest point and became a popular approach. During these periods, the paradigm wars were launched based on incompatibility of the quantitative and the qualitative methods. The paradigm war started with the discrediting of positivism which resulted as the increasing of popularity in the constructivism. Theorists and researchers argued the superiority of their own paradigms. During that time, there was a progress made toward a clear specification of the mixed methods. Denzin (1978) introduced the term "triangulation," which involves combining data sources to study the same phenomenon. Also, the term "methodological triangulation" was introduced under the same concept of data triangulation, but rather focuses on cross methods checking.

The final phase of mixed method design is the postmodern or the present moment (1990-present). This is the period of "pragmatism and the compatibility thesis" Tashakkori & Teddlie, 2003). Pragmatism was positioned as a counterargument to the incompatibility between the quantitative and qualitative inquiry. In this period, more scholar works aimed toward the use of mixed methods as a separate field. The method resided in the idea that all methods had biases and weaknesses. The collection of both qualitative and quantitative data neutralized the weaknesses of each other.

Creswell & Clark (2011) addressed two additional stages of development in mixed methods design beyond 2003, that is, the expanded procedural development period and the reflection and refinement period. During the expanded procedural development period, researchers experienced the formalization of the field through major publications, a growth of the systematic methods in conduction of mixed method studies, increased funding, expansion of journal publications of empirical mixed method research, and the extensive use of the research design in an international stage. The reflection and refinement period refer to the stage of reflective controversies and issues of concern regarding mixed methods and the refinements in methods and perspectives.

Despite advantages of mixed methods design, questions have been raised concerning the rationale behind mixed methods and its inclusiveness. Creswell (2011) addressed eleven controversies and questions raised in mixed methods research, for instance, the definitions of mixed methods, the stance of mixed methods (approach vs. design), paradigm, post positivism privilege, languages used in mixed methods, procedures of mixed methods, and the value added by mixed methods study. Tashakkori & Teddlie (2003) also discussed current state of mixed method research. Tashakkori & Teddlie first presented in their handbook major unresolved issues and controversies about the use of mixed methods in social and behavioral research. This was followed by Greene (2008) with the analysis of keys domains in mixed methods in *Journal of Mixed Methods Research* JMMR. Following by Creswell in 2008, mapping of topics in the field of mixed methods was presented as a keynote address to 2008 Mixed Methods Conference at Cambridge University in England.

Pragmatism – A Foundation of Mixed Methods Research

Pragmatism is a philosophical tradition originated in the United States around 1870. Generally, pragmatism practice stresses consequences accounting for essential basis that determines value, meaning, and truth (Hookway, 2008). Pragmatism, as a research paradigm, avoids conflicts between positivism and constructivism, that is, the absolute truth and multiple realities. Instead, pragmatism concentrates on solving practical problems in the ''real world.'' Pragmatist researchers are not committed to a specific method or methods, but rather aim to investigate a particular question, theory, or phenomenon. They are anti-dualists who question the dichotomy of positivism and constructivism and demand a convergence of quantitative and qualitative methods (Felizer, 2010). Mixed methods approach challenges quantitative and qualitative researchers to reconsider their stance and the purpose of conducting research studies, that is, to find out what researchers want to know.

Although this research was conducted through the lens of social justice, pragmatism also laid underneath the context of the study. As a music educator, I seek for and always believe in what "works best" for each learning circumstance. Teaching reality is different depending on where you are in the world. Thus, there is no such thing as one perfect model that could fit all circumstances. Adaptation is the key, especially when your circumstance is far from being sufficient. This was the beginning of my line of inquiry. The thoughts of 'all students are equal' and 'every student deserves the best of music education' were the drive behind this research study.

Mixed Methods Research in Music Education

Fitzpatrick (2014) stated:

As music teaching and learning is a complex human endeavor, mixed methods

researchers in our field attempt to illustrate these complexities with research that

is both meaningfully contextual and also sufficiently illustrative of broader trends.

(p. 1)

Mixed methods research has been used widely in the field of education.

However, the design has been comparatively recent in music education. Fitzpatrick

(2014) asserted that, perhaps, this was the result of the supremacy of the quantitative

research within the field. It was only until recently that mixed method studies started to

appear in music education publications. Some of the earliest mixed methods research in

music education include a study of Austin and Berg (2006). The purpose of the study was

to investigate music practice among sixth-grade band and orchestra students. This study

put an emphasis on the quantitative instrument as a tool to collect data. The qualitative

component appeared as narrative data about students' practice experiences. The

qualitative data were coded and compared to the quantitative analysis in order to enhance

the findings. Another example is a study by Bazan (2011). The purpose of this study was

to present results on the teaching and learning strategies of middle school band and

teachers. The study also emphasized on the quantitative aspect with follow-up qualitative

data to provide a deeper perspective of the phenomenon.

In addition to published studies, there has been an increasing numbers of music

education dissertation that used mixed methods design. The earliest dissertations

appeared in 2004 and continued to grow since then (Fitzpatrick, 2014). Compared to

mixed methods research in publications, there were far greater numbers of mixed methods dissertations. Fitzpatrick (2014) stated that one of the reasons could be because the length of mixed method studies was more complex and generally longer. With the page constraint of music education journals, researchers struggled to report their findings considered this limitation.

Mixed methods studies are yet rarer in Thailand. As mentioned in Chapter Two, most studies found on ThaiLIS database were single methods - either quantitative or qualitative. Only 1.8% of Thai music and music education studies found on this database were reported to used mixed methods approach (Boonyam, 2017). Mixed methods studies are in need even more in Thailand. A combination of quantitative and qualitative methods could provide researchers both in-depth and empirical results that encompass multidimensional answers to the research problems. This is the nature of pragmatism which focuses on the research questions rather than the 'methods', in order to provide better understanding of the circumstance (Creswell & Creswell 2018). The integration of quantitative and qualitative data could potentially enhance the understanding of current problems and the overall situation in Thai music education

Mixed Methods Design for the Present Study

There are three main types of mixed methods design: explanatory-sequential, exploratory-sequential, and convergent mixed methods (Creswell, 2018). Explanatory-sequential mixed methods is a two-phase design starting with collecting and analyzing quantitative data in the first phase. The second phase involves explaining quantitative data with the follow-up qualitative data. The exploratory-sequential mixed methods is also a two-phase design but rather starts with collecting qualitative data in the first phase

in order to develop research instruments, identify variables, or guide the research framework. Once the qualitative data are obtained, the next phase of the exploratory-sequential mixed methods involves collecting quantitative data using qualitative data from the previous as a guideline. Convergent mixed methods or the embedded design, as the name suggests, involves collecting quantitative and qualitative data at the same time. This design is useful when researchers need both qualitative and qualitative data in order to answer research questions. For this present study, an explanatory sequential mixed method was chosen in order to acquire both empirical and in-depth information. The design involved two phases: the assessment of student music achievement and the follow-up interview to further explain the assessment results. (Figure 1). Mixed-methods design is a pragmatic approach that allows researchers flexibility and the ability to adapt their research methods to fit the research questions. In this case, students' music achievement was the precedent data, while individual interviews were a subsequence that provided a thorough understanding to the phenomenon and enhanced the quality of numerical data with richer data of the participants' lived experience.

Participant Selection

Participant selection for the quantitative phase or phase I of this study were middle school and high school students enrolled in music courses, music elective courses, or participated in after school music programs from selected public, private, and international schools in Bangkok during the academic year of 2019-2020, which was the time I conducted the study. Participants of the quantitative phase obtained various levels of music knowledge and experience, came from diverse socioeconomic backgrounds, and represented varied demographics. The participants' music achievement was evaluated by

Figure 1 Explanatory Sequential Design of the Study

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┌─────────────────────────────────────┐
│         QUANTITATIVE PHASE           │
│    • Research question #1            │
│    • Research question #2            │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│          DATA COLLECTION             │
│  • MMAT and HMAT                     │
│  • Student demographic and background│
│    survey questionnaire              │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│           DATA ANALYSIS              │
│  • One-way ANOVA and Welch ANOVA     │
│  • MANOVA                            │
│  • Post hoc comparisons using Scheffe│
│    and Games-                        │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│            INTEGRATION               │
│    • Interview participants were     │
│      identified                      │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│          QUALITATIVE PHASE           │
│    • Research question #3            │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│          DATA COLLECTION             │
│    • Teacher interviews              │
│    • Student interviews              │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│           DATA ANALYSIS              │
│  • Case study with multiple bounded  │
│    systems                           │
│  • within-case and cross-case        │
│  • Horizontalization and constant    │
│    comparative                       │
└─────────────────────────────────────┘

┌────────────┐   ┌──────────────────┐   ┌────────────┐
│Quantitative│──▶│   INTEGRATION    │◀──│ Qualitative│
│  results   │   │• Research        │   │  results   │
│            │   │  question #4     │   │            │
└────────────┘   └──────────────────┘   └────────────┘
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my creation of music achievement tests based on *the Basic Education Core Curriculum 2008*. The tests were then scored and categorized into three subsets of music knowledge expected of students to learn at specific level as indicated in *the Basic Education Core Curriculum 2008.* The three subsets include music theory, general knowledge of music, and music in social context. Additional details regarding participants is included later in this chapter.

The Design and Development of Research Instrument

The research instrument of this phase – The *middle school music achievement test* (MMAT) and the *high school music achievement test* (HMAT) – twas designed to answer research question one and two. In order to measure students' music achievement, a form of assessment is required. Until present, Thailand does not have a standardized music exam. The closest to a standardized music exam would be the university entrance exams that are administered to students who apply for music and music education programs. However, those exams vary depending on the institutions. Thus, I designed music achievement test based on *the Basic Education Core Curriculum 2008* to fulfill this purpose. Since the Thai Ministry of education recommends that all schools follow *the Basic Education Core Curriculum 2008*, I decided to choose this curriculum as a guideline to develop my assessment because it is the model that majority of Thai schools would follow.

Middle School Music Achievement Test (MMAT) and *High School Music Achievement Test* (HMAT) were created in Spring 2018 as a part of my final project for the Assessment in Arts Education course at the University of Minnesota. The final project

of this class was an initiation of the present study. The tests were, then, adapted and solidified through time for the best outcome and for validity and reliability purposes.

I began this process by developing test blueprints. *Middle School Music Achievement Test* (MMAT) and *High School Music Achievement Test* (HMAT) share similar structure (appendix A and B). They feature three subsets (sometimes referred to as categories) of music knowledge expected of students to learn at specific levels as indicated in *the Basic Education Core Curriculum 2008*, which include music theory, general knowledge of music, and music in social context. They also have the same format. The format of MMAT and HMAT is a combination of selected-response and constructed-response. The selected-response component consists of 20 multiple-choice questions, 5 true-false questions, and 5 matching items. Test items on the selected-response part focus on the topics of music theory and general knowledge of music, while constructed-response part concentrates on music theory in the analysis level and music in social context. The constructed-response component consists of five restricted-response questions (short answers) and one extended-response question (essay).

The three subsets or categories were chosen according to topics emphasized in *the Basic Education Core Curriculum 2008*. There are two main standards (with sub-standards) presented within music subject of this curriculum. Standard one involves understanding of and capacity for creative self-expression through music, analysis and criticism of value of music, free conveyance of feelings and thoughts about music, appreciation and application in daily life. Standard two involves understanding of relationship between music, history and culture, appreciation of musical works that represent cultural heritage, local wisdom, and Thai and universal wisdom. Benchmarks

for each grade level are provided separately under each standard. After a careful analysis of the curriculum, several topics stood out to me and seemed to be the focus and direction in which the Thai Ministry of Education were aiming for. Standard one mostly involves the technical aspect of music, such as musical notation, rhythm, harmony, forms, musical instruments, and artistic skills. Standard two involves an ethnographic aspect of music, such as music appreciation, expressions, history, music from various cultures, and the role of music in society. The topics and benchmarks dedicated to each standard are fairly broad, which presented challenges for me as a test maker who attempted to follow the content of this curriculum. I decided to use my own judgement – as a music teacher who has been teaching for more than ten years – to choose, prioritize, and organize those topics, while trying to maintain the essence of the curriculum. Therefore, I reorganized the standards and benchmarks, put related topics under the same subset, and continue to develop the blueprints accordingly.

The first subset is music theory, which is presented mostly in standard one of the national curriculum. The music theory subset involves topics of musical notation, key signature, rhythm, time signature, musical forms, and musical expressions. Test takers were evaluated according to Bloom's Taxonomy. The Bloom's Taxonomy model has highly influenced teachers and educators in terms of how to approach education goals and teaching practices (Brookhart & Nitko, 2015). For me, especially, it served as a direction and a reminder of which items I should include in the test and how those items should be carved into test questions. For the music theory category, test questions vary across six headings of the Bloom's Taxonomy model (Bloom, 1956). Some questions target lower level of learning, such as identify notes of music staff, key signatures, and

time signature. Some questions evaluate for higher level of learning; e.g., transposing, describing functions, and analyzing musical excerpts. As mentioned, both middle school and high school blueprints follow the same structure, with high school's being more advanced and complex in terms of the content.

The second category is general knowledge of music. This category involves topics from standards one and two of the national curriculum. Topics under this category are comprised of knowledge about musical instruments and ensembles, with a historical context laid underneath those topics. Since the curriculum incorporates both Thai and Western contexts, it is important that my tests capture the same elements. Similar to the first category, test questions for this category are also framed by the Bloom's Taxonomy model. Questions for lower level of thinking include indicating names for musical instruments and musical ensembles. Questions that represent higher level of thinking include compare/contrast and describe the characteristics of instruments and ensembles.

The final category is music in social context, which is presented in standard two of the national curriculum. For this category, test takers are required to demonstrate their understanding of knowledge, articulate their perspectives, and synthesize their ideas in the form of short essay. The questions for both middle school and high school level urge test takers to think critically about the quality and roles of music and musicians in Thai society. Questions on this category target the higher levels of thinking rather than the lower levels of thinking, which is why the constructed-response was chosen over the selected-response type of assessment.

Once the blueprints were finished, I moved on to creating the actual tests. A major benefit of making test blueprints is the fact that it forces test makers to think thoroughly

and constructively about the assessment. In my case, the process of creating blueprints was more challenging than the process of creating the actual tests. Once the blueprints were refined, I already had an explicit idea of what my tests would look like. I immediately moved on to producing test questions, following the guideline and structure I had already built through the process of creating the blueprints.

Validity

In order to establish validity, both middle school and high school tests have been reviewed by an outside expert, who is a Thai music teacher with over fifteen years of teaching experiences in a middle-sized international school in Bangkok. According to the expert, the overall contents were appropriate for Thai students. All topics included in MMAT and HMAT were the topics that music teachers should cover in general music classes no matter which curriculum the schools chose to implement. Some questions were perceived as more difficult than others (Bloom's taxonomy-apply and analysis questions). Some were fairly easy (Bloom's taxonomy-remember and understand questions). The approximate time for students to finish this test should be between 45 minutes to one hour. The outside expert also suggested some minor changes regarding the test format and the musical excerpts chosen for the music analysis part. Aside from those suggestions, this achievement test was a good representation of the knowledge that students should acquire by the end of middle school and high school.

The first adjustment I made was the test format of both middle school and high school tests. The original format consisted 20 multiple choice questions, 5 true-false questions, and 5 matching items, and two essay questions. According to the recommendation of an expert, two essays are impossible to complete within one music

period (which was the amount of time that I was allowed on research sites in each visit). Therefore, I modified the first essay question into five short answer questions tied to specific topics of music knowledge that I was looking for. The second adjustment I made was the choice of a musical excerpt for the music analysis part in MMAT. The original song I assigned for this section was Caro mio ben – a popular aria by Giuseppe Giordani. Again, the expert suggested that this Italian aria might be too complex and not relevant under the context that I aimed for. She suggested a simpler song that still contains all elements of Western Classical music theory, but somehow more familiar to Thai students and not as intense as an Italian aria, such as a Christmas song. Thus, I changed the musical excerpt to Beal and Boothe's Jingle-bell Rock.

Pilot Study

After making adjustment as suggested by the outside expert, I sent the MMAT and HMAT out for pilot testing. Students who participated in pilot tests were middle school and high school students from an international school in Bangkok and enrolled in music and music elective classes. It was a middle-sized international school with approximately 500 students in the academic year of 2019 – 2020. Student population was a mix of Thai, Chinese, American, British, Filipino, Korean, and Indian. At this school, music was a required subject for students from K to G8. Once students reached the high school level, music became an elective. This was the reason why the number of middle school participants (n=23) in this pilot study is higher than those in from high school level (n=15)

Due to the location restriction, I was not able to administer the tests by myself. Instead, I asked a former colleague who was the music teacher of this school during the

time I conducted the pilot study to administer the tests. The pilot study was approved by this teacher and the school director. The process started on April 1, 2019 and ended on April 5, 2019 during music and music elective periods. The procedure included the teacher's direction and explanation, participants taking the tests, and closing statement or comments. Student participants took the achievement tests in the form paper-and-pencil assessment. Paper-and-pencil assessment was a more appropriate option in this case due to the limited access to internet and technology in Thailand. To avoid any problems caused by the lack of access, I decided to conduct the achievement tests a form paper-and-pencil.

Once all the participants finished, tests were scored by another Thai colleague who was a musician and a piano instructor, following the answer key that I made prior to the time of pilot study. Test results were then reported to me via electronic mail and in a form of Microsoft Excel (Appendix C and D). Comments from participants were also collected after the test process was over in a form of text messages between student participants and the researcher. Comments from two high school students who took the HMAT were very similar to each other. Both of them indicated that the format of the test was clear and well organized. They also indicated that questions in the music theory category were not difficult and they were able to answer most of them. The area that seemed to present challenges was general knowledge of music. Two participants commented that they could not answer many questions relating to musical instruments and musical ensembles, particularly those involved Thai Classical music.

To determine the reliability of the MMAT and HMAT, I conducted a reliability test. The reliability test, Cronbach's alpha in this case, refers to the extent to which the

test is likely to produce consistent scores. The reliability coefficients can range from zero (no reliability) to 1.00 (perfect reliability). The high reliability refers to the tests that are likely to produce similar results. Low reliability refers to test questions that are unrelated to each other in terms of who answer those questions correctly (University of Washington Office of Educational Assessment, 2019). For this pilot study, the middle school test had the internal consistency of 0.70 and the high school test has the internal consistency of 0.71 (both rounded up). The alpha of 0.7 is usually considered good for classroom tests. Thus, it provided a good reliability evidence for my assessment (Table 1 and 2.)

Table 1 – MS pilot test – variance and alpha

Items	20
Sum of item variances	4.41
Variance of total scores	12.99
Alpha	0.70
Mean	9.30
Median	9
SD	3.69

Table 2 – HS pilot test – variance and alpha

Items	20
Sum of item variances	3.33
Variance of total scores	10.22
Alpha	0.71
Mean	12.33
Median	12
SD	3.31

Pilot Study Limitations

Although the coefficient alpha provided good reliability evidence for both middle school and high school music achievement tests, it only addressed one part of the assessment – the multiple choice items. One of the limitations I encountered with my assessment was the fact that I was not able to test reliability of the remaining components. Due to the time frame and the issue of location, other methods of reliability, such as test-retest and parallel test form, were not possible. However, another method that I incorporated in the main study, in order to increase the reliability of my assessment, is the inter-rater. To ensure the reliability for the extended-response or the essay question two scorers graded participants' short essays, and the average scores were used for the statistical analysis.

Another limitation of my pilot study was the test administration. The fact that I was not able to administer both tests by myself could affect students' understanding of the tests and their understanding of my expectation. This also limited my chances to discuss the feedback with the participants. Instead of talking to only two high school participants via electronic communication, I could have discussed with the whole class. Ideally, more feedback would have been helpful for the overall test improvement. All of these limitations emerged due to the reality that the pilot study was conducted internationally. It is my job to plan and manage – under each unique circumstance – and come up with the results that are most trustworthy, despite any limitations that I encountered.

Site Selections, Sampling, and Permissions

The goal of this section is to explain the process of site selections, sampling, and permission granting. The process is described chronologically. For confidentiality purposes, school names are pseudonyms. Public, private, and international schools that granted me permission to do data collection is described individually in the following section.

Site selecting process began in the early August, as a planning phase. My original design was to do multistage sampling consisting of stratified sampling and random sampling. To follow along with the original plan, schools in Bangkok were sorted into public, private, and international category. I then prepared related documents, such as dissertation proposal, recruitment letter, and parental consent forms before the actual communication began. However, there was a limitation regarding methods of communication primarily used in the country. Many organizations including schools prefer non-electronic type of communication. Schools were more likely to respond by phone calls and personal visits. This was an important factor that affected my site selection since I was limited to school districts closer to my place where I was able to travel to. Because of this, four districts located in the heart of Bangkok were targeted. Due to this limitation, a random sample was no longer feasible. I had to compromise with the purposeful sample instead a random sampling.

Once the study was approved by the IRB on 9/6/2019 (Appendix E), I began contacting each school by phone calls first, in order to learn their rules and policy regarding conducting a research study. Most schools stated their preference of paper documents. Only a few schools allowed me to send electronic documents via email.

Packages of paper documents were prepared and delivered to seventeen schools within the selected districts by myself. Electronic documents were also sent out to three schools that allowed email communication. After one week, I gave each school a follow-up call. Most schools stated that my proposal was in an "in-review process" which might take a few days up to two weeks before they could provide any updates. Some schools did not acknowledge document received. One school in particular stated that the package was lost and requested a replacement, which I did according to their request.

Two weeks after documents were delivered, I began to receive phone calls from schools asking for further information about my study. Three public schools were interested and requested conferences in person, which I agreed. Three private schools rejected without asking for further details. And the rest did not respond. Within the same week, I scheduled meetings with three public schools to discuss the process of data collection and additional information concerning this study.

After three weeks of communicating back and forth, two international schools and one private school granted me permissions to conduct a research study. Originally, I aimed for two schools per category assuming that my sample size would be large enough. However, after a careful calculation and estimation, I realized that two schools per category might not be enough. According to the central limit theorem, the sampling distribution of the means of any variables will be normal or nearly normal if the sample size is large enough. Some statisticians believe that a sample size of 30 is a good representative of the population when the distribution is roughly bell-shaped (Stat Trek, 2000). In order to reach 30 participants per category, I needed to recruit more schools. The reason for low numbers of students per site was because music was not always a

required subject for students, especially for high school level. For example, in one international school, there were five high school students in total who enrolled in music course in the academic year 2019-2020. My plan was modified. At that moment, I no longer focused on the numbers of research sites and rather focused on a combination of schools that could provide me the desired number.

Approximately one month after I began the process of site selections, I was granted permissions to conduct research by three public schools, two private schools, and three international schools. All of these schools implemented similar policy and process. First, they requested for a conference – either in person or by a phone call – to discuss further details and the research procedure. However, one international school dropped out because of the unexpected low number of parental approvals. Thus, my final numbers of site selections were down to three public schools, two private schools, and two international schools.

Once officially approved, my next task was to coordinate with the music teacher or the head of arts department in order to schedule the dates for data collection. I then prepared copies of the consent form and music the achievement test prior to the scheduled time. After the examination process was over, the tests were scored by hand, and the test results were reported to the schools that requested. Additional details and narrative of each research site is presented in the following section.

Research Sites

For confidentiality purpose, names of schools and persons whom I contacted during the process of data collection were replaced with pseudonyms. Each school is assigned an English letter – from letter A to G. The goal of this section is to explain

characteristics of each school for readers to have an overview of school atmosphere and essential qualities of the institution. In order to specify and differentiate schools' characteristics, information such as student size, tuition fee, institutional background, and curricular structure were crucial. Since it was not a policy for schools in Thailand to include certain information, such as student size and tuition fees in their websites, information regarding these aspects were taken directly from the teacher or the head of department. As a researcher, I ensure the trustworthiness of the information contained in this study, because this information came from the personal testimony of those who worked in the institutions during the time I conducted this present study.

School A

School A is an all-boys, large public school with approximately 1,700 students in the academic year 2019-2020. The school was founded in 1901 by a Buddhist monk and operated in a temple as an informal education. In 1902, the government promoted this "temple school" into an official public school under the supervision of the Thai Ministry of Education. The tuition fee of this school is approximately 3,000 Thai baht or $100 US dollar per semester. This is a fixed-tuition rate for most Thai public schools. Besides the regular program, school A also offers a special program, the engineering-focus program, which concentrates on subjects needed for university entrance exam in engineering majors. The tuition fee of this focus program is the same rate as the regular program. However, the school has been considering increasing the tuition fee of the engineering-focus program because it receives positive feedback and has become more popular after the three-year trial.

Because of the nature of an all-boys institution, students of school A are highly interested in and encouraged to play sports. Sports, especially soccer, have been a culture of this school. Other activities such as music, visual arts, and performing arts are not their priorities. As for academic, there are several factors that seem to put negative influence school A students' performance and achievement. Those factors include peer influence, lack of opportunity, and students' financial limitation. These factors sometimes put students into situations where they lose their motivation to study because students have their own personal obstacles that they need to overcome (Lunlilyn, personal communication, October 14, 2019).

The music program of school A does reflect characteristics of the school and the students. Since music is not an emphasis here, the annual budget dedicated to this department is inadequate. School A does not have a rich parent and alumni association to support them with extra money. The majority of their budgets come from the Ministry of Education. At the beginning of each academic year, the fine arts department receives a tight budget of approximately $5,000 US dollars. This amount of money would, then, be distributed to four divisions under the fine arts department, i.e., music, Thai Classical music, visual arts, and performing arts. This is a budget for the entire year. Pre-planned expenses are deducted from this annual budget, which means that there is usually no money left for unexpected expenses. If there is a circumstance that calls for extra money, teachers have to find the solutions that are excluded from the annual budget (Lunlilyn, personal communication, October 14, 2019). School A is a typical case of public schools that were insufficient and striving to be better but could not move very far due to a great number of limitations.

School B

School B started off in 1929 as an experimental program for college education majors. In 1966, the school was relocated and formally established as an independent public school under the supervision of the Thai Ministry of Education. School B is an extra- large, co-educational public school that has approximately 3,900 students in 2019-2020 academic year. Because of the large student size, the school is more diverse in terms of students' socioeconomic status. Tuition fees of this school vary depending on the programs. For instance, regular program costs around $100 US dollar per semester, which follows the public-school fixed rate. The school also offers a "gifted program", which refers to a focus program for high achieving students. This special program costs around $806 US dollar per semester. It is eight times more than the tuition fee of the regular program and considered rather expensive for a public school (P. Chanaksor, personal communication, September 26, 2019). According to this information, diversity can be expected from the student population of this school. There is a mix of privileged students, from middle- to upper-class families and under privileged students from lower-class families attending the school.

School B was acknowledged in 2011 by the Thai Ministry of Education as one of the top sixteen best public schools in Thailand. Unlike others, school B is significantly wealthier than the typical public schools. An outstanding evidence is a flourishing music program with a brand-new building dedicated to school orchestra, concert band, and ensembles. According to the head of music department, school board and the director recognized an importance of music education. Thus, the music department of this school received plenty of budgets to invest on musical instruments, outsourced teachers, and – of

course – the new building. School A music budgets came mostly from parent and alumni association and other sources. None of the school B music budgets came from the Thai Ministry of Education. It was the money earned purely from the schools without any contribution from the government (P. Chanaksor, personal communication, September 26, 2019)

Besides their award-winning orchestra, extra-curricular activities relating to contemporary music, such as rock band and dance club, are also highly encouraged in this school. At school B, music is not only a subject, but also a culture. Students are eager to play. Parents encourage their children to participate in musical activities. Music teachers are devoted. And most importantly, the leader of the institution realizes the significance of music and genuinely support the program. School B represents certain qualities that could potentially be factors that influence students' music achievement and their experience of school music programs.

School C

School C is an all-boys private school with approximately 5,000 students enrolled in the academic year 2019-2020. Established in 1852 by a group of American Presbyterian missionaries, school C is one of the oldest private schools in Thailand. This school has a reputation for strong academics. Other activities, such as sports and music are also well known to the public. Because of its reputation, school admissions are competitive. The tuition fees of this school come in three different rates depending on the programs. The tuition fee for the regular program is 20,000 Thai baht or $666 US dollar per semester. The Intensive English Program (IEP) costs around 65,000 Thai baht or $2,166 US dollar per semester. The English Immersion Program (EIP) costs around

120,000 Thai baht or $4,000 US dollar. All three programs differ in the intensity level of English language used in teaching and learning. Tuition fees of this school indicate that students are more likely to come from wealthy families. Parents of this school can afford to pay high tuition fees hoping that that their children would receive the high-quality education in return (Moo noi, personal communication, October 29, 2019).

School C's annual budget is abundant. For the academic year 2019-2020, the music budget alone is worth five million baht or approximately $166,666 US dollars. Music department resources are ample. Instruments are top quality. Practice rooms are well designed and well maintained. School orchestra, especially, is well supported by the school board, director, and parents. Orchestra students are able to join several international competitions and student exchange programs. Such international trips are sponsored partially by the school. The remaining cost is usually paid by the parents and student fundraising activities. This signifies the parental socioeconomic status at this school is high since they can afford to pay for expensive trips annually.

However, because the school C has a great reputation for strong academics, the school atmosphere is still academically oriented. Students are under pressure to perform well. The desire to succeed academically sometimes discourage students from participating in non-academic activities. Even though the resources and facilities are abundant, music teachers still need to work hard trying to recruit students to join musical activities that required extra time to practice. According to the music teacher of the school, students' attitude towards music is one of the problems that prevented the school music program from growing to its maximum potential (Moo noi, personal communication, October 29, 2019).

School D

School D is an extra-large public school that provides a co-educational system for students from 7th to12th grade with approximately 4,000 students attending the school in the academic year 2019-2020. Similar to other public schools, tuition fees of school D follow the public school-fixed rate, which is 3,000 Thai baht or roughly $100 US dollar per semester. Founded in 1971, school D is known for being one of the most prestigious schools in the country. Students of this school achieved a great number of awards from both international and domestic organizations. The school is known for producing high achieving students. For instance, school D ranked number one several times in the service area 2 for the O-NET (Ordinary National Educational Test) – a standardized test used to measure student achievement base on standards in *the Basic Education Core Curriculum 2008* – for many years (Marcato, personal communication, October 31, 2019).

Music program of school D is as decent as the overall school reputation. Even though music is not the biggest emphasis of the school. The school marching band and Thai Classical ensemble still managed to win several awards in the past. Similar to typical public schools, the annual music budget mainly comes from the Thai Ministry of Education. There is no extra support from parents and alumni association. Thus, music resources and facilities of this school are in moderate condition. They are not ideal but good enough to produce quality work. At school D, the music department serves both in-school events and community events. The school concert band sometimes participate in local music competitions and occasionally join international competitions.

According to the music teacher of the school, the majority of students in school D are disciplined and well-behaved students. The school cultivates not only knowledge but

also ethics and morals. Although music has not been the main focus of the school, students who choose to participate in music would generally be responsible for their jobs and perform up to the teacher's expectation, because that is how they are fostered (Marcato, personal communication, October 31, 2019). School D is a well-rounded institution that manages to find balance in all aspects of learning.

School E

School E is a middle-sized international school with approximately 500 students attending the school in the academic year 2019-2020. It is a co-educational system for students from kindergarten to grade 12. The tuition fee of this school is roughly 219,000 Thai baht or $7,300 US dollar per semester. This is significantly higher than the tuition fees of public and private schools. School E is an American-system international school that implemented *the Common Core curriculum* and *the California Curriculum*. Students of this school are encouraged to pursue their higher education abroad or to continue studying in international programs offered by leading Thai universities.

The music program of school E is also different from those of public and private schools. School E emphasizes popular music – from the types of ensembles, types of musical instruments, to the repertoire. Due to the small student population, there is no official marching band or orchestra. The low number of students, on the other hand, works to the advantage of the students. Students of school E are more familiar with musical performances and productions. Since there are quite a few school events that required music all year round, the majority of students are trained to perform, run the production, and assist their teacher in the process of creation (Dan, personal communication, November 12, 2019).

According to the secondary music teacher, students of school E are optimistic, assertive, and confident. These are the characteristics that the school tries to foster in their students through the international environment. Contrarily to Thai public and private schools, students of school E are used to speaking in front of peers, expressing their opinions, and being leaders. These characteristics may be common for students of the Western culture. However, in Thailand where children and adolescents are taught to stay quiet and not express many of their opinions, these qualities are considered unusual. In fact, these characteristics represent the progressiveness of the modern-Thai culture, far away from the traditional-Thai culture taught in public and private schools.

School F

School F is a small-sized international school with approximately 370 students attending in the academic year 2019-2020. It is a co-educational system for students from kindergarten to grade 12. The tuition fee of this school is roughly 170,000 Thai baht or $5,666 US dollar per semester. This is considered quite economical for an international school, but still expensive compared to public and private schools. School F is a British system school that implemented *the English National Curriculum*.

According to the secondary music teacher, students of school F are pleasant and very well-behaved. Because of the small student body, students of this school have developed a positive and trusted relationship among friends and teachers. Regardless of the small number, school F students are very musical and enjoyed various school musical activities. A great number of students receive private music lessons outside of schools. This can be implied the parental socioeconomic status of school F is rather high. Despite students' love for music and the continuous support from school and parents, music starts

to lose its significance as students grew older. The closer to the time of graduation, the more academically focused students become. Music is no longer the priority. Except for those who plan to pursue a further degree in music (Beard man, personal communication, November 12, 2019).

School music program school F is small but ample. Facilities and resources are generally good. Classrooms, practice rooms, and storages are well-designed and spacious. Instruments are adequate and in decent conditions. The annual budget for music is enough for students' needs but not as excessive as some other bigger schools. Music lessons of this school cover a wide range of topics that are crucial for students which could apply to musical culture of the modern society. In terms of musical activities, the school provides plenty opportunities for their students to join, e.g., ensembles, competitions, musicals, as well as musical collaboration among schools.

School G

School G is an all-girls, private school with approximately 1,300 students enrolled in the academic year 2019-2020. A group of American Presbyterian missionaries established this private school closed to the Wanglang palace and the oldest hospital of the country – Siriraj Hospital. School G is the oldest boarding school that provided the first complete K-12 education. The tuition fee of this school is 80,000 per semester or approximately $2,666 US dollar.

Students of school G achieved a great number of awards in various areas including academic, art, and music. The school choir is especially well-known and already won many awards from both international and domestic competitions. The choir, however, is taught separately from the general music classes with an outsourced teacher.

The overall music facilities are decent. Musical activities are well supported by the school board, teachers, and parents.

Students of school G are exceptionally bonded, which is the nature of a boarding school in Thailand. The majority of them are well behaved and courteous. Because the school is the oldest boarding school that is known for being one of the most prestigious schools in the country, some of their values, attitudes, and rules are quite conservative. For example, students of school G had to keep their hair short for the tidiness and personal hygiene purpose. Long hair style was allowed only to high school students. Such values and beliefs have fostered the students of this school to become more conventional and disciplined as compared to students at the same age from other schools.

Quantitative Data Collection

The goal of this section is to describe steps of conducting the quantitative data collection. The main study procedures were similar to those of the pilot study. Middle school and high school students ($N = 310$) from seven schools in Bangkok area were recruited to participate in the quantitative phase (middle school participants $n = 173$, high school participants $n = 137$). Participants were selected by music teachers or the head of arts department of the school according to the school schedule and availability. Participants were students who enrolled in music courses, music elective courses, or joined afterschool music programs in the academic year of 2019-2020 (school A participants $n = 41$, school B participants $n = 56$, school C participants $n = 46$, school D participants $n = 27$, school E participants $n = 51$, school F participants $n = 30$, school G participants $n = 59$). Participants, dates, and venue for data collection were selected by the music teacher or the head of fine arts department based on the school calendar,

schedule, availability, and appropriateness. Since the method of the quantitative phase involved students spending 45 minutes to one hour of their class time taking music achievement tests, I – as a researcher – must compromise and cooperate according to the schools.

Once the dates were confirmed, parental consent forms were sent out to students. The consent form included essential information regarding the study, researchers' contact information, and the reply slip for parents and gradians to indicate whether or not they allowed their children to be a part of the study (Appendix F). However, five schools chose to waive the consent form. The decision was made by either the head of music department or the head of fine arts department. Most of them indicated that, after reviewing the research proposal, they did not see any risk or potential harm to their students. Thus, they decided to waive the parental consent form and would take full responsibility if there were any incident or consequence happening from the process of data collection.

Data collection process began with the researcher's self-introduction and a brief explanation about the study. The self-introduction helped students feel more comfortable and not as nervous since there was a stranger in their classroom. An explanation about the study allowed students to understand the researcher's expectation and prepared them for the upcoming activity. The researcher, then, passed the tests to student participants and gave them the test direction. I clarified the music achievement tests – MMAT and HMAT –step by step following the sequence of the tests. Once the students understood their tasks, they were asked to proceed the tests.

During the examination procedure, students were allowed to ask clarifying questions by raising their hands. I, as a test administrator, stepped in and answered every question individually. If the questions were crucial and contained information that other participants needed to know, I would interrupt the examination and made a quick announcement. The approximate length of time students needed to complete the MMAT and HMAT were between 45 – 60 minutes. The selected-response part did not require a lot of time to finish, while the constructed-response part usually required longer time to for students to complete since it involved essay writing. Students could turn in the exam paper right after they were finished and left the classroom or moved on to other activities according to the teachers who supervised them.

Data Analysis

<u>Research question 1 – Is there a difference in the total scores of the music achievement test among students who attend public, private, and international schools?</u>

To gain understanding into the first research question, the average of test scores of students studying in public, private, and international schools were compared. The quantitative analysis targeting this question included obtaining descriptive statistics of the MMAT and HMAT. Descriptive statistics described the distribution and center of data and explained the spread of data. One-way analysis of variance (ANOVA) and Welch ANOVA were conducted to identify a significant difference in total exam scores among three groups. Results of ANOVA analysis were further analyzed using the Scheffe and the Games-Howell test to specify which type of school differed from others (Lock, Lock, Morgan, Lock, & Lock, 2017).

<u>Research question 2 – Is there a difference in the scores of each subset – music theory, general knowledge of music, and music in social context – among students who attend public, private, international schools?</u>

To determine whether significant differences existed in the mean scores of subsets between public school participants, private school participants, and international school participants; the researcher conducted the multivariate analysis of variance or MANOVA. However, the one-way MANOVA only signified that there was a significant different between groups. In order to determine which group differed, the researcher needed to compute a post hoc test. Similar to the total test scores, post hoc comparisons using the Scheffe test indicated that there were significant differences in subsets of public, private, and international school participants.

Method Limitation

The limitation of this phase resided on the nature of the quantitative research and the extent of what numbers could measure in arts education. The disadvantage of my quantitative assessment was the fact that it did not include the performance aspect of music as a part of the achievement. I created MMAT and HMAT based on the national curriculum implemented by most Thai schools. MMAT and HMAT were representatives of the curriculum content, which emphasized heavily on academic music rather than performance. Music achievement involves both knowledge and artistic skills. Without incorporating the performance component, this study might not be able to capture all aspects of what considered music achievement.

Chapter Summary

The mixed methods design was created out of the tension of the paradigm war between quantitative and qualitative researchers. It was developed in mid 90's as a technique of combining quantitative and qualitative methods together in order to obtain more accurate results. The mixed methods design was, then, established as a field in late 90's following the pragmatism paradigm. For the current study, an explanatory sequential approach was chosen because it allowed the researcher to investigate both empirical and in-depth data regarding Thai students' music achievement and their perception toward school music. This chapter provides detailed explanations involving quantitative participants, the research instrument, sampling procedure, research sites, data collection, and data analysis. The next chapter presents the quantitative results acquired from the researcher's music achievement tests, MMAT and HMAT.

CHAPTER IV

QUANTITATIVE RESULTS

This chapter presents the results from the quantitative analysis. The results are organized into two sections, addressing the first two research questions that directed the quantitative phase of the study:

1. Is there a significant difference among the total scores of the music achievement test for students who attend public, private, and international schools?

   Null hypothesis H_0: There is no significant difference in the total test scores among students who attend public, private, international schools.

   H_0: $\mu_1 = \mu_2 = \mu_3$

2. Is there a significant difference among the scores of each subset – music theory, general knowledge of music, and music in social context – for students who attend public, private, international schools?

   Null hypothesis H_0: There is no significant difference in music theory, general knowledge of music, and music in social context scores among students who attend public, private, and international schools.

   H_0: $\mu_1 = \mu_2 = \mu_3$

There are four types of measurement scales that researchers generally use: nominal, ordinal, interval, and ratio (Mills & Gay, 2016). Participants of this study were divided into three categories depending on types of schools they attended, e.g., public, private, and international. This level of data was nominal since they did not provide any quantitative information. The total test scores and scores of each subset had exact values between units and a true zero. Therefore, they were classified as a ratio variable. And

because student music achievement scores were compared among three types of school to test if differences existed, types of schools were the independent variable and the music achievement scores were the dependent variable.

In addition to the MMAT and HMAT, participants of the quantitative phase were asked to complete the demographic and background survey questionnaire, which provided additional information and assisted the researcher in writing the discussion section of the study. Information obtained from the demographic and background questionnaire allowed the readers to better understand the students' context, school setting, and experience. The demographic and background questionnaire played a role in both quantitative and qualitative phase. For the quantitative phase, the demographic and background survey questionnaire provided the researcher opportunity to explore characteristics of students, which could relate to factors that affected their music achievement and allowed the researcher to determine whether or not the participants were a good representative sample of the target population. This information is presented in Table 3.

Quantitative Results

<u>Research question 1 – Is there a significant difference among the total scores of the music achievement test for students who attend public, private, and international schools?</u>

To determine whether significant differences existed among the mean total music achievement scores of public school participants, private school participants, and international school participants, the researcher conducted a one-way analysis of variance or one-way between group ANOVA. Prior to conducting ANOVA, the researcher checked if ANOVA assumptions were met. The researcher came across violations of the

Table 3

Demographic Characteristics of Quantitative Participants

School	Type	Total Participants (N)	Nationalities	MS				HS			
				n.	Sex	Grade	Age	n.	Sex	Grade	Age
A	Public	41	TH 100%	22	M 22 F 0	7	12-14	19	M 19 F 0	11-12	16-18
B	Public	56	TH 97.75% Dual 2.25%	34	M 19 F 15	7-9	11-15	22	M 15 F 7	10-11	15-17
C	Private	46	TH 97.2% Dual 2.8%	28	M 28 F 0	7-9	12-15	18	M 18 F 0	10-11	15-17
D	Public	27	TH 100%	17	M 10 F 7	7-9	12-15	10	M 4 F 6	10-12	15-18
E	International	51	TH 63.6% PH 12.7% ID 2.18% CH 2.18% KR 1.8% Dual 11.85% UNK 6.5%	23	M 10 F 13	7-8	11-14	28	M 14 F 14	9-12	14-18

F	International	30	TH 55.55% KR 41.7% CH 2.8% PK 2.8% Dual 18.05%	18	M 8 F 10	6-7	11-13	12	M 5 F 7	9-11	14-17
G	Private	59	TH 100%	31	M 0 F 31	9	14-15	28	M 0 F 28	10	15-16

Note: TH = Thailand, PH = Philippine, ID = Indonesia, CH = China, KR = Republic of Korea, PK = Pakistan, Dual = Dual Citizenship, UNK = Unknown

assumptions of ANOVA regarding normality and homogeneity of variance. This required some statistical adjustment. Both issues are discussed in the analysis below.

The score of the MMAT was 50 points in total. Data obtained from middle school participants were not normally distributed for either group as indicated by significant results on the Shapiro-Wilk test of normality (p < .05). Mean total scores for public middle school indicated the .001 alpha value on the Shapiro-Wilk test, which indicated that the data distributions were not normal. The distribution of public middle school scores appeared in a non-symmetric bimodal distribution indicating two distinct groups within one data set (M = 23.77, SD = 9.45) with the majority of the data falling into the first quartile and the third quartile (Appendix G).

Similar to public schools, mean total scores of private middle school participants also indicated the .001 alpha value on the Shapiro-Wilk test representing the non-normal distribution (M = 20.61, SD = 8.33). Data were skewed right with the majority of the participants scoring in the second quartile. The distributions of data and descriptive statistics revealed that public middle school participants scored higher than the private middle school participants, whereas the scores were more consistent in the private middle schools (Appendix H).

International middle school presented a slightly better distribution among the three types of schools. The mean scores of international middle school participants indicated the .005 alpha value on the Shapiro-Wilk test, which still indicated that the data distributions were not normal. However, combined with the smaller standard deviation, the consistency of scores from international middle school participants were somewhat better (M = 17.49, SD = 8.17) (Appendix I). Similar to private middle schools, data were

skewed right with the majority of the participants scored in the second quartile. The shape of data distribution and the descriptive statistics designated that participants from international middle schools scored the lowest among the three types of schools, even with an outlier represented an outstanding test score, the mean score of international middle schools was still remarkably lower than the other two (Figure 2).
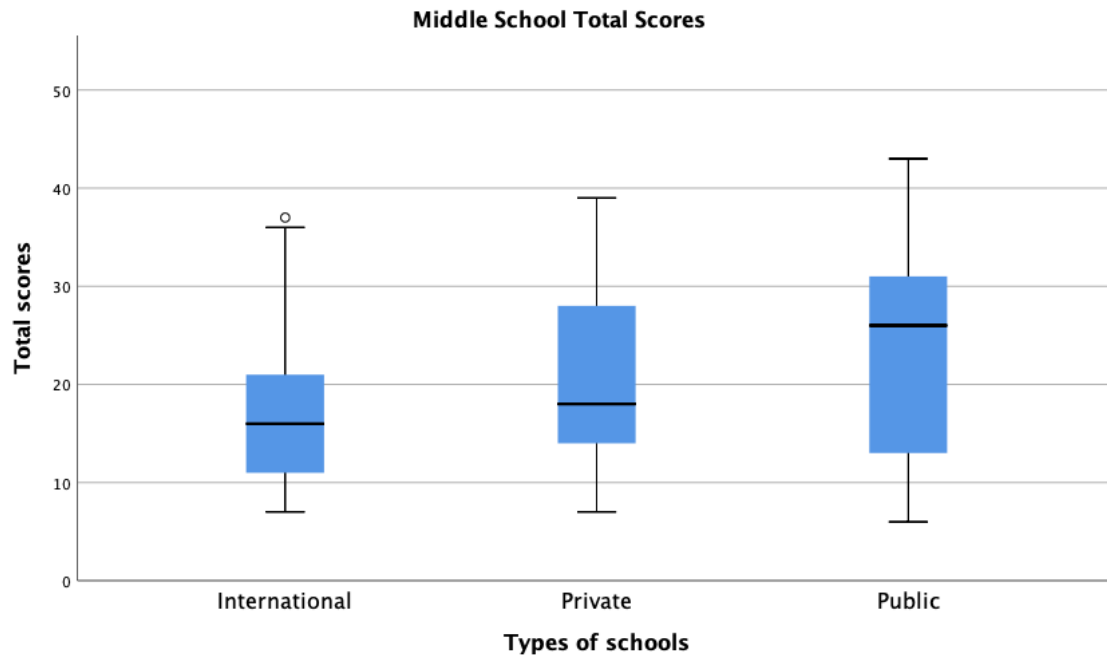
Figure 2. Box plot of middle school total scores by types of schools.

Because one-way ANOVA is considered a robust test against the normality assumptions, which means that the test can tolerate violations regarding normality assumption, only a small effect of type I error can be assumed (Lund & Lund, 2018). Furthermore, the results of Levene's test, the test of homogeneity variances, revealed a significant result (p = .163) pointing that the equal variances were assumed from the middle school data. Since these ANOVA assumptions were met, the researcher was able to proceed with the analysis as planned. There was a significant difference in the total music achievement scores among middle school groups at the p < .05 level [F (2, 170) =

6.91, p = .001]. Thus, the null hypothesis was rejected. This result suggested that types of schools had an effect on student music achievement. However, the one-way between group ANOVA only signified that there was a significant different between groups. In order to determine which group differed, the researcher needed to compute a post hoc test.

Post hoc comparisons using the Scheffe test indicated that the mean total score of the public middle school music achievement was significantly difference from mean total scores of international middle schools (p = .002). The mean total score of public middle schools did not significantly differ from the total mean total scores of private middle schools (p = .125). And the mean total scores of private middle schools were not significantly different from the mean total scores of international middle schools either (p = .220). Taken together, these results suggested that types of schools in Thailand did have an effect on student music achievement. It appeared that public middle school participants scored the highest and differed statistically from the lowest score group, which was the international middle schools. The scores of private middle school participants, on the other hand, ranked in the middle of the three and did not differ statistically compared to the highest and lowest of the group (Table 4).

The situation for high school participants was more complicated. To begin with, data were somewhat normal distributed as indicated by results on the Shapiro-Wilk test of normality (p < .05). Mean total scores of public high schools (M = 24.67, SD = 10.45) (Appendix J) indicated the .008 alpha value on the Shapiro-Wilk test which represented that the data distribution was not normal and appeared in a non-symmetric bimodal distribution indicating two distinct groups within one data set. On the other hand,

Table 4

Middle School Post Hoc Comparisons of the Mean Total Scores

Types of schools (MS)	Comparison	Significant level
Public (M = 23.77, SD = 9.45)	Private	.125
	International	.002
Private (M = 20.61, SD = 8.33)	Public	.125
	International	.220
International (M = 17.49, SD = 8.17)	Public	.002
	Private	.220

Note: The mean difference is significant at the 0.05 level
       Total score = 50 points

The mean total scores of private high schools (M = 20.20, SD = 5.86) (Appendix K)

indicate the .319 alpha value on the Shapiro-Wilk test, which was a sign of normal

distribution. The mean total scores of international high schools (M = 25.08, SD = 6.96)

(Appendix L) indicated the .048 alpha value on the Shapiro-Wilk test. Although the mean

scores of international high schools did not make the .05 cut, it was fairly close (Figure

3). Because of this unclear condition, the researcher decided to investigate further by

looking at the distribution of all mean scores combined into one dataset. The mean scores

of three groups combined indicated the .099 alpha value on the Shapiro-Wilk test, which

was a presentation the normal distribution of data (Figure 4). Altogether, with large

sample size, the ANOVA normality assumptions were met.
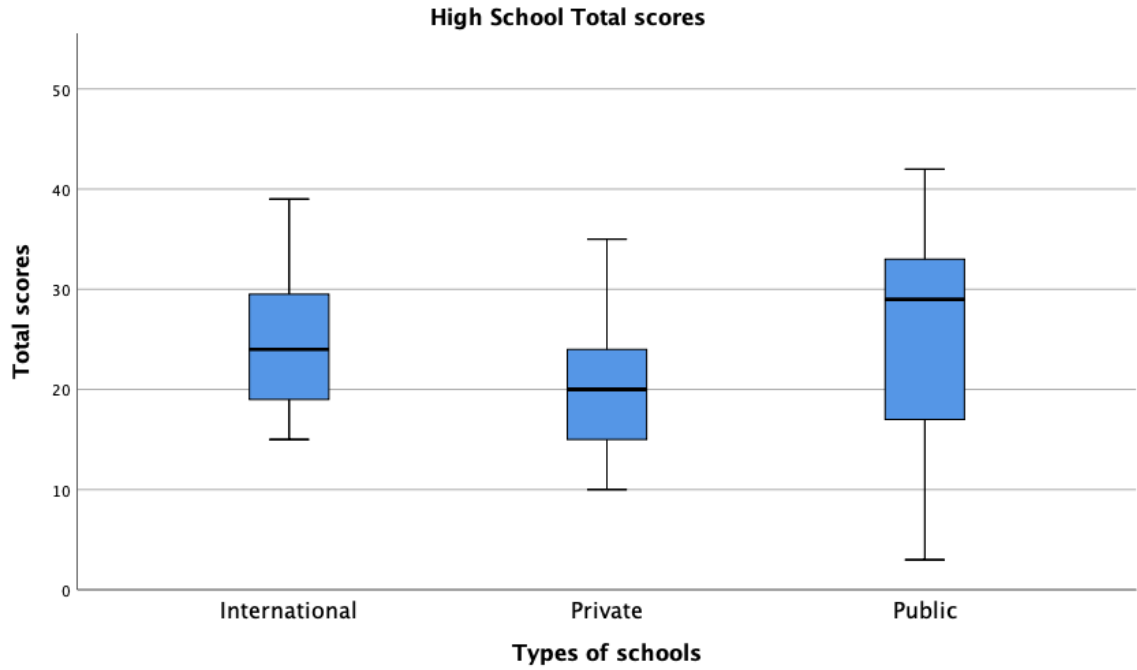
Figure 3. Box plot of high school total scores by types of schools.
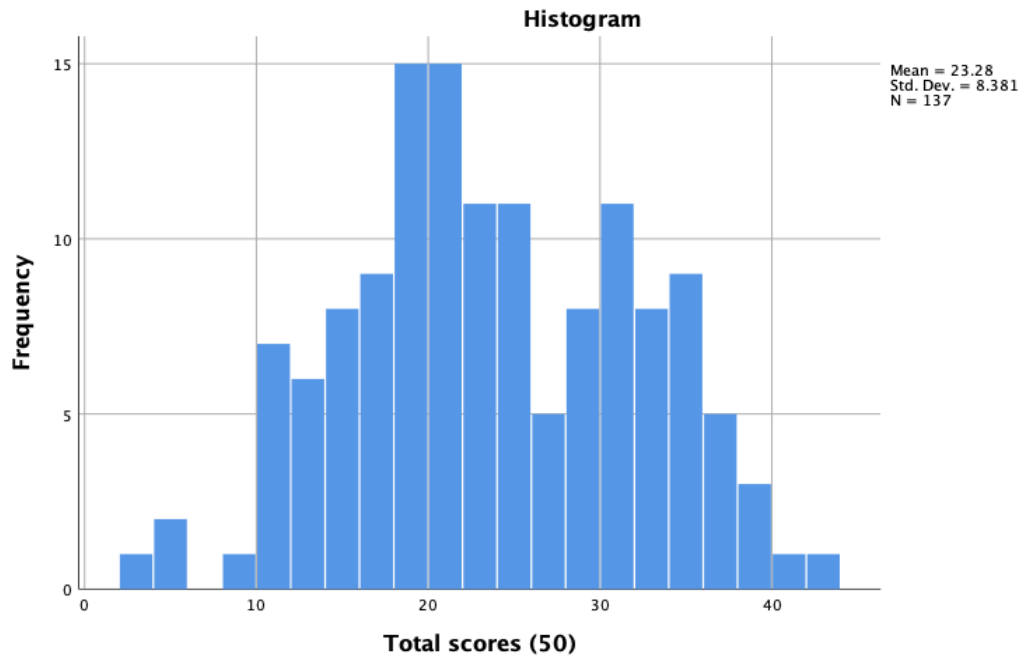
Figure 4. Histogram of High School Total Scores Combined

The results of Levene's test, the test of homogeneity variances, revealed a significant result (p < .01) signifying that the assumption of equal variances was not met in the case of high school data. Thus, the researcher conducted the Welch ANOVA instead of the one-way ANOVA. There was a significant difference in the mean total scores among groups of high school participants at the at the p < .05 level [F (2, 134) = 5.01, p = .001]. Therefore, the researcher rejected the null hypothesis. The result suggested that types of schools had an effect of student music achievement but did not specify which group differed. Because of this, the researcher conducted a post hoc analysis in order to determine which group differed statistically.

Since the assumption of homogeneity of variances was violated, the researcher chose to conduct the Games-Howell post hoc test. The Games-Howell test is a nonparametric approach used to compare combinations of groups (RPubs by RStudio, 2019). Similar to the Scheffe test, the Games-Howell test does not assume equal sample sizes. The reason that made the Games-Howell appropriate for this data set is the fact that this test does not assume the equal variances like the Scheffe test does. Post hoc comparisons using the Games-Howell test indicated that the mean total score of the public high schools was significantly different from mean total scores of private high schools (p = .027). The mean total score of the public high schools, however, was not significantly different from the mean total scores of international high schools (p = .973). Finally, the mean total score of international high schools was also significantly different from the mean total scores of private high schools (p = .002). Altogether, these results suggested that types of schools in Thailand did have an effect of student music achievement. It appeared that private high school participants scored the lowest and

statistically differed from the other two groups who scored higher and were relatively

close to each other (Table 5).

Table 5

High School Post Hoc Comparisons of the Mean Total Scores

Types of schools (HS)	Comparison	Significant level
Public (M = 24.67, SD = 10.45)	Private	.027
	International	.973
Private (M = 20.20, SD = 5.86)	Public	.027
	International	.002
International (M = 25.08, SD = 6.96)	Public	.973
	Private	.002

Note: The mean difference is significant at the 0.05 level
        Total score = 50 points

Research question 2 – Is there a significant difference among the scores of each subset –

music theory, general knowledge of music, and music in social context – for students

who attend public, private, international schools?

　　　　To determine whether significant differences existed in mean subset scores

between public school participants, private school participants, and international school

participants; the researcher conducted the multivariate analysis of variance or MANOVA.

It is simply an ANOVA with multiple dependent variables. ANOVA is a test for

difference in means of two or more groups, while MANOVA takes into account the

multiple continuous dependent variables and bundles them together into a weighted linear

combination or composite variable (Tabachnick & Fidell, 2012). For this study, the

independent variable remained the same – types of schools that the participants attended.

The multiple continuous dependent variables were the scores of each subset within the

MMAT and HMAT: music theory, general knowledge of music, and music in social context.

Before conducting one-way MANOVA, the researcher checked if the MANOVA assumptions were met. Because scores of each subset was not equal, the researcher converted the raw scores into percentage in order to put the data on an equal scale. For the middle school music theory data, the normality assumption was violated. According to the Shapiro-Wilk test of normality ($p < .05$), the alpha values of public middle schools, private middle, and international middle schools yielded significant results. This designated that the data for the music theory subset were not normally distributed. One outlier existed in the international school group, which effected in increasing the group mean. However, retaining the outliers resulted in a more conservative statistical calculation than removing the outliers (Hawkinson, 2015). Therefore, the researcher decided to retain the outliers. Similar to their mean total scores, public middle school data in the music theory subset appeared in a non-symmetric bimodal distribution indicating two distinct groups within one data set ($M = 52.18\%$, $SD = 8.04$) with the majority of participants scored in the third quartile. Private middle school data in this subset were skewed right ($M = 40.15\%$, $SD = 7.67$) with the majority of the participants scored in the second quartile. Similar in the international middle school group, data in the music theory subset were also skewed right with the majority of the participants scored in the second quartile ($M = 34.30\%$, $SD = 7.16$).

Middle school data for the general knowledge of music category also signified the non-normal distribution. The Shapiro-Wilk test of normality ($p < .05$) indicated significant results for all types of schools. This designated that the data for the general

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knowledge of music subset were not normally distributed. There were no outliers detected in the data of this subset. Public middle school data for the general knowledge of music subset were skewed left with the majority of the participants scored in the third quartile (M = 61.43%, SD = 1.43). Private middle school data for this subset were also skewed left with the majority of the participants scored in the third quartile (M = 57.43%, SD = 1.42). Similarly, the international middle school data for this subset were skewed left with the majority of the participants scored in the third quartile (M = 37%, SD = 1.34).

Middle school data for the music in social context also signified the non-normal distribution. The Shapiro-Wilk test of normality (p < .05) indicated significant results for all types of schools. This designated that the data for the general knowledge of music subset were not normally distributed. Considerable number of outliers existed in public and international school group, which effected the total group means. As explained previously, the researcher decided to retain the outliers because of more a conservative statistical calculation. Public middle school data for the music in social context were skewed right with the majority of the participants scored in the second quartile (M = 22.5%, SD = 1.49). Private middle school data for this subset were also skewed right with the majority of the participants scored in the second quartile (M = 33.4%, SD = 1.85). Similarly, the international middle school data for this subset were skewed right with the majority of the participants scored in the second quartile (M = 35.9, SD = 1.7). Even though middle school data in subsets did not present normality in distribution, one-way MANOVA is considered a robust test against the normality assumptions. Thus, the

researcher decided to proceed with the analysis as planned. Data distribution of middle school participants in subsets is presented in Figure 5.

Moving forward to the next MANOVA assumption, Box's Test for Equivalence of Covariance Matrices or Box's M test (p < .05) provided non-significant results, which indicated that there are no significant differences between the covariance matrices. The Levene's Test of Equality of Error Variances (p < .05), which used to test the variances of each variable are equal across the groups, also yielded non-significant results. This indicated that the assumption of equal variances was met in the case of middle school subset data.

Since the normality assumption was skeptical, the researcher decided to follow the Pillai's trace. There was a significant difference in the music achievement subset scores among middle school groups at the p < .05 level [F (6, 338) = 11.48, p < .01]. Therefore, the researcher rejected the null hypothesis. This result suggested that types of schools had an effect of student music achievement subset scores. However, the one-way MANOVA only signified that there was a significant different among groups. In order to determine which group differed, the researcher needed to compute a post hoc test.

For the music theory subset, post hoc comparisons using the Scheffe test indicated that there were significant differences between public middle schools and private middle schools (p = .015) as well as public middle schools and international middle schools (p = .001). There was no significant difference between private middle schools and international middle schools. According to these results, it appeared that public middle school participants scored the highest in this category and differed statistically from the other two groups.

Figure 5. Box plot of Middle School Scores in Subsets

For the general knowledge of music subset, the Scheffe post hoc comparisons test indicated that there were significant differences between public middle schools and international middle schools ($p < .01$) as well as private middle schools and international middle schools ($p < .01$). There was no significant difference between public middle schools and private middle schools. For the general knowledge of music, it appeared that international middle school participants scored the lowest and differed statistically compared to the other groups who scored higher in this category.

For the music in social context subset, the Scheffe post hoc comparisons test indicated that there were significant differences between public middle schools and private middle schools ($p = .001$) as well as the public middle schools and international middle schools ($p < .01$). There was no significant difference between private middle schools and international middle schools. For the music in social context category, the

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results revealed that public middle school participants scored the lowest and differed statistically compared to the other groups who scored higher in this category (Table 6).

High school data distribution was slightly better than the distribution of middle school data. Similar to the middle school data, the researcher converted raw scores into percentages since total scores of each category on the MMAT and HMAT were not equal. For the music theory category, the Shapiro-Wilk test of normality ($p < .05$) indicated non-significant results for private (M = 33.04%, SD = 4.64) and international high schools (M = 46.35%, SD = 5.05) and a significant result for public high schools (M = 49.5%, SD = 7.11). For the general knowledge of music category, the Shapiro-Wilk test indicated a non-significant result for private high schools (M = 56.5%, SD = 2.57) and significant results for public (M = 62.71%, SD = 2.89) and international high schools (M = 48.57%, SD = 2.21). As for the music in social context category, the Shapiro-Wilk test yielded significant results for all three types of school: public (M = 30.2%, SD = 2.27), private (M = 37%, SD = 1.43), international (M = 62.3%, SD = 1.72) These results suggested that, for some categories, the normality assumption was met. Because of this skepticism, the researcher decided to further investigate the data in a big picture by combining all participants' scores together following three main categories – music theory, general knowledge of music, and music in social context – in order to check if data of each test category were normally distributed or not. The Shapiro-Wilk test ($p < .05$) indicated significant results in all test categories. For music theory, data were skewed right with the majority of participants from all types of schools scored in the second quartile. For the general knowledge of music, data were skewed left with the majority of participants from all types of schools scored in the third quartile. One outlier

Table 6

Middle School Post Hoc Comparisons of the Mean Subset Scores

Categories level	Types of schools (MS)	Comparison	Significant
Music Theory	Public (M = 52.18%, SD = 8.04)	Private	.015
		International	.001
	Private (M = 40.15%, SD = 7.67)	Public	.015
		International	.468
	International (M = 34.30%, SD = 7.16)	Public	.001
		International	.468
General Knowledge of Music	Public (M = 61.43%, SD = 1.43)	Private	.515
		International	.000
	Private (M = 57.43%, SD = 1.42)	Public	.515
		International	.000
	International (M = 37%, SD = 1.34)	Public	.000
		Private	.000
Music in Social Context	Public (M = 22.5%, SD = 1.49)	Private	.001
		International	.000
	Private (M = 33.4%, SD = 1.85)	Public	.001
		International	.770
	International (M = 35.9%, SD = 1.7)	Public	.000
		Private	.770

Note: The mean difference is significant at the 0.05 level

      Total score in percentage

existed in this subset which resulted in the lowering group means. As for music in social

context, data were skewed right with the majority of participants from all schools scored

in the second quartile. Considerable numbers of outliers were also found in this subset

which certainly effected the average mean scores. However, due to the rationale explained in the previous section, the researcher decided to retain all the outliers.

According to these results, the normality assumption was violated. But because one way-MANOVA is a test that can tolerate the normality assumption, combined with large sample size, the researcher decided to proceed the analysis as planned but with extra caution. Data distribution of high school participants in subsets is presented in Figure 6.

Moving forward to the next MANOVA assumption, Box's Test for Equivalence of Covariance Matrices or Box's M test ($p < .05$) provided significant results, which indicated that differences between the covariance matrices were assumed. The Levene's Test of Equality of Error Variances ($p < .05$) also yielded significant results in music theory and music in social context. This indicated that the assumption of equal variances was met only in general knowledge of music category. The assumption of equal variances, however, was not met in music theory and music in social context category.

Since not all MANOVA assumptions were met, the researcher decided to follow the Pillai's trace. There was a significant difference in the music achievement subset scores among high school groups at the $p < .05$ level [$F_{(6, 266)} = 16.34$, $p < .01$]. Thus, the null hypothesis was rejected. The result suggested that types of schools had an effect of student music achievement subset scores. Because of the significant result, the researcher proceeded with the post hoc test in order to determine which group differed statistically.
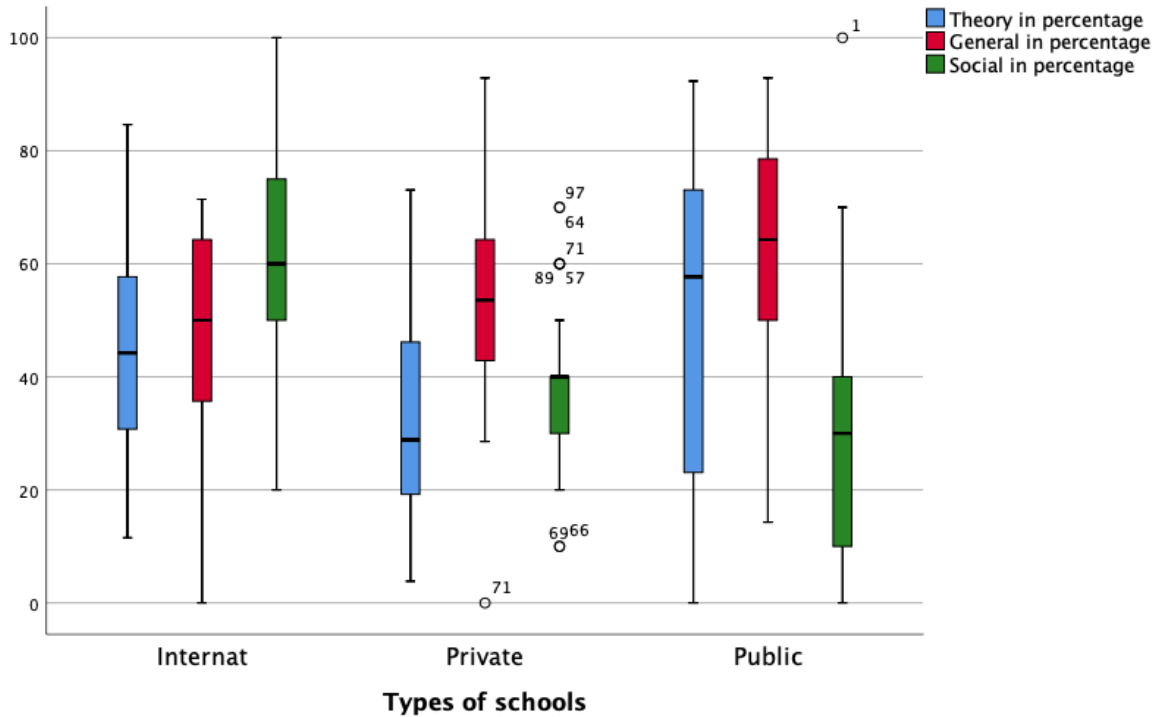
Figure 6. Box Plot of High School Scores in Subsets

For the music theory, post hoc comparisons using the Scheffe test indicated that there were significant differences between private and public high schools (p = .002) as well as private and international schools (p = .024). There was no significant difference between public middle schools and international middle schools. The results suggested that types of school had an effect on the participants' music theory scores. It appeared that private high school participants scored the lowest in this subset and differed statistically from the other two groups who scored higher.

For the general knowledge of music, the Scheffe test revealed that there was a significant difference between public and international high schools (p = .002). No significant results were found between private and international high schools as well as private and public high schools. According to the results, international high school participants scored the lowest in the general knowledge of music subset and differed

statistically from public high school participants who scored the highest. However, scores of international high school participants were not different statistically compared to the scores of private high school participants who ranked the second place in this subset.

For the music in social context, the Scheffe test revealed significant results between international and public high school ($p < .01$) as well as international and private high schools ($p < .01$). According to the results, international high school participants scored the highest in this subset and differed statistically from the other two groups who scored lower (Table 7)

Table 7

High School Post Hoc Comparisons of the Mean Subset Scores

Categories level	Types of schools (HS)	Comparison	Significant
Music Theory	Public (M = 49.5%, SD = 7.11)	Private International	.002 .802
	Private (M = 33.04%, SD = 4.64)	Public International	.002 .024
	International (M = 46.35%, SD = 5.05)	Public Private	.802 .024
General Knowledge of Music	Public (M = 62.71%, SD = 2.89)	Private International	.260 .002
	Private (M = 56.5%, SD = 2.57)	Public International	.260 .144
	International (M = 48.57%, SD = 2.21)	Public Private	.002 .144
Music in Social Context	Public (M = 30.2%, SD = 2.27)	Private International	.206 .000
	Private (M = 37%, SD = 1.43)	Public International	.206 .000
	International (M = 62.3%, SD = 1.72)	Public Private	.000 .000

Note: The mean difference is significant at the 0.05 level
       Total score in percentage

Chapter Summary

The results of the statistical analyses indicated that significant differences existed in music achievement total scores between students of public, private, and international schools – both middle school and high school level. The researcher also found significant differences in mean subset scores between students of public, private, and international schools in both middle schools as well as high school level.

For the total scores, post hoc analyses indicated that public middle school participants scored the highest and differed statistically from the lowest score group, which was the international middle schools. The scores of private middle school participants, on the other hand, ranked in the middle of the three and did not differ statistically compared to the highest and lowest group. As for high school, the results suggested that private high school participants scored the lowest and statistically differed from the other two groups who scored higher and were relatively close to each other.

For the music theory subset, post hoc analyses indicated that public middle school participants scored the highest in this cat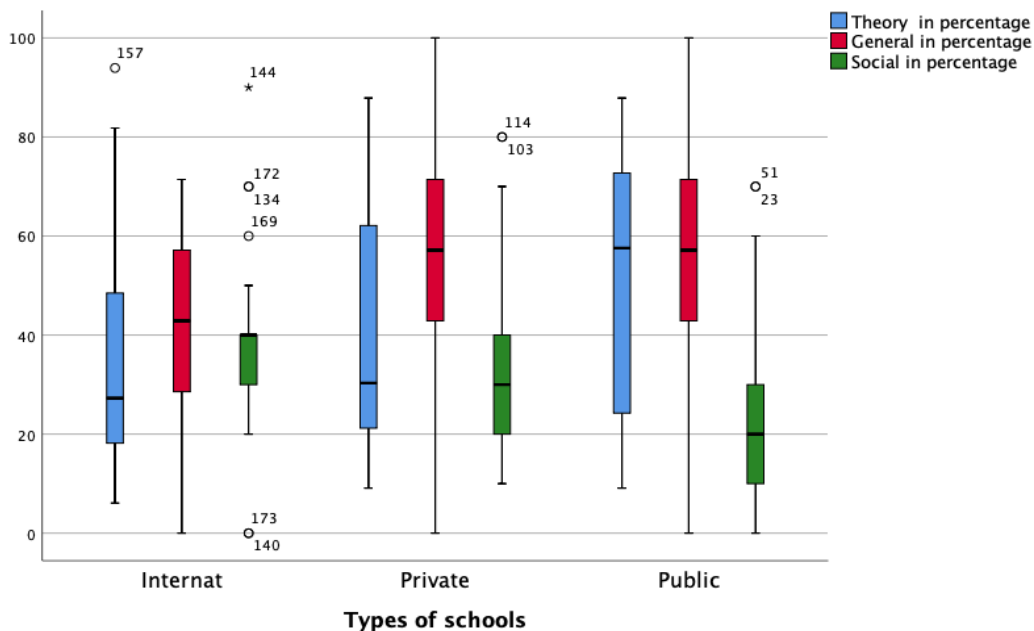egory and differed statistically from the other two groups. For the general knowledge of music, it appeared that international middle school participants scored the lowest and differed statistically compared to the other groups who scored higher in this subset. As for music in social context, public middle school participants scored the lowest and differed statistically compared to the other groups who scored higher in this category.

Post hoc analyses also revealed some statistical differences in the subset scores of high school participants. For the music theory subset, the results suggested that private high school participants scored the lowest and differed statistically from the other two

groups who scored higher. For the general knowledge of music, international high school participants scored the lowest and differed statistically from public high school participants who scored the highest. However, scores of international high school participants were not different statistically compared to the scores of private high school participants who ranked in the middle. As for the music in social context, international high school participants scored the highest in this subset and differed statistically from the other two groups who scored lower.

CHAPTER V

QUALITATIVE METHOD

The purpose of this study was to assess student music achievement, understand students' music experience relative to the level of music achievement, and explore relationships between student music achievement and possible influential factors, such as teachers, schools, curricula, students' background characteristics, and students' life experience. I chose an explanatory-sequential mixed methods in order to understand both student music achievement and the rationale behind it. The design involved two phases: the assessment of student music achievement and the follow-up interview to further explain the assessment results. Phase one included MMAT and HMAT scores.

Phase two involved individual interviews of selected students who represented low or high achievement. The interviews explored how students describe their experience in the school music program relative to their own level of achievement. The interviews also determined relationships between student music achievement and possible influential factors, such as teachers' qualifications, school music curricula, students' background and demographic characteristics, and students' life experience. Aside from student interviews, music teachers from participating schools were also interviewed as they provide contextual information such as school characteristics, music programs, and curricula. Both data sets were used to determine the relationships between student music achievement and possible influences. Ultimately, results of this phase worked to enhance my understanding of the research problems and explore both expected and unexpected realities that occurred during the process of data gathering.

The goal of this chapter is to describe the qualitative procedures including student demographic and background survey questionnaire, student interview protocol, teacher interview protocol, sampling procedure, participants, data collection, data analysis, and method limitations. Toward the end of the chapter, I review my role as a researcher and how I established trustworthiness of the qualitative phase in this study.

Student Demographic and Background Survey Questionnaire

In addition to the achievement test completed during the quantitative data collection, students were asked to complete a demographic and background survey questionnaire (Appendix M). For the quantitative phase, information obtained from the survey questionnaire provided contextual information regarding participants. As for the qualitative phase, data from survey questionnaire assisted in developing interview questions and purposeful sampling selection. The survey was not anonymous because it contained contact information needed in order to communicate with potential participants of the qualitative phase. The student demographic and background survey questionnaire consisted of eight questions. Question one to three asked for participants' names, schools, and current grade levels, which were kept confidential through the entire research process and for future publication. This information was used primarily to contact and classify potential interview participants. For those who became the actual participants, pseudonyms were used to replace their real names.

Questions four to six asked for participants' demographic information, such as age, gender, and nationality. These data, along with data from previous questions, assisted in the purposeful sampling for the qualitative phase. Question seven asked for the name of the school music teacher and the length of study. The purpose for this question

was to clarify in case the school has more than one music teacher, since teachers might be one of the influences that could affect student achievement. All of these possible influences were further investigated in the form of individual interviews.

The final question of the student demographic and background survey questionnaire asked participants to indicate their willingness to participate in individual interviews. Only participants who checked the "Yes, I am interested in participating" box and provided complete contact information were contacted back. Details regarding sampling selection for this phase are described later in this chapter.

Student Interview Protocol

To follow along with an explanatory-sequential mixed methods design, results from the qualitative phase obtained from individual interviews were used to further explain results from the quantitative phase of the study. A set of interview questions was created and developed following the interview protocol suggested by Creswell & Creswell (2018) in order to answer research questions three and four (appendix N). The interview questions focused on students' perception of the achievement test, students' perception of school music learning, students' perception of school music teachers, in-school factors that contribute to their music achievement, and out-of-school factors that contribute to their music achievement. Preliminary data from the student demographic and background survey questionnaire were also taken in consideration while creating the protocol.

I prepared sixteen questions for individual, semi-structured interviews. Interview questions one to three asked about basic background information, such as school, grade level, and pseudonyms the participants would like to use. Interview question four gave

participants an opportunity to describe their schools. For this question, I usually took the chance to prompt the students in elaborating more about their school culture, atmosphere, strengths, weaknesses, and peers. Question five and six concentrated on the music achievement tests that participants completed during the quantitative data collection. These two questions aimed to get students' feedback on the test, e.g., familiarity of the topics on the exams and the level of difficulty, which related to what students learned or did not learn from their school music programs. Questions seven to eleven prompted students to speak about their music classes in several aspects, such as learning topics, routines, and activities. Questions twelve and thirteen asked the participants to describe characteristics of their music teachers and explain their perception toward their teachers, since music teachers was one of the possible influences on student music achievement. Questions fourteen and fifteen focused on students' musical involvement outside of school and family support. These two questions allowed students to speak about their other extracurricular musical activities, out-of-school musical activities, how supportive their parents are, and how parental values could impact those activities and their choices of participation. The final question asked for participants' thoughts on factors that, they believed, affected their own and others' music achievement.

Once completed, the interview protocol was sent out for peer checking. A peer who reviewed my interview protocol was a music therapy doctoral student from a well-known research university in the United States who had experience conducting interviews with clients. Since English is my second language, there were comments and suggestions regarding choices of words and how the questions were phrased. Some questions were perceived as too leading. Some appeared to be too informal. I adjusted

accordingly while taking the cultural difference into consideration as well. Some words and phrases might be perceived as not appropriate to use if the interviews were conducted in English. However, in the context of Thailand, language that shows intimacy was necessary in order to create a warm and welcoming atmosphere, which led to sincerity and honesty in a conversation.

Teacher Interview Protocol

My original plan was to interview only student participants and use those transcripts to code for categories and themes. However, due to the limited information on the research sites provided on the official school websites, brochures, and other supporting documents, I decided to interview teachers in order to gain more information. Data obtained from the teacher interviews provided an overview and in-depth information regarding the institution and the school music program. All of this information can be found in the previous chapter under the research sites section.

Interviewed teachers were either the music teacher or the head of the art department. Since the original intention for teacher interviews was to acquire information concerning the schools and music programs, the interview protocol was crafted to fulfill that specific purpose (Appendix O). Most of the interview questions prompted the interviewees to speak about factual aspects of their schools with a few exceptional questions that asked about their thoughts and perceptions. I prepared ten questions for semi-structured interviews starting from a bigger picture of the institution and narrowing down to more specific details about the music program.

Question one and two asked for personal information of the teacher, such as names and titles, for my own clarification and for the purpose of contacting them. All of

the personal information was kept confidential throughout the research process and for future publication. The next question asked the teachers to describe their schools, for example, student population, student characteristics, and emphasis of the school. While asking this question I took the opportunity to prompt the interviewees to speak more in depth about the school atmosphere as well as school culture. The information I obtained from this question helped enhance my perception of each institution and determine relationships between the school and student music achievement.

Question four asked about the tuition fees of the schools. This information was crucial and could not be found on most of the school websites or other supporting documents. To some extent, the tuition fees helped estimate students' and their families' financial status. As described in chapter three, costs of attending public, private, and international schools in Thailand were remarkably different. Thus, this piece of information was essential as it could be one of the factors that relates to student music achievement.

Question five to seven asked the interviewees specifically about their school music programs. The questions included topics such as the overall picture of the program, facilities, resources, schedules, routine, musical activities, and the annual music budget. Through these questions, I learned that each school had a distinctive vision and policy when it came to their music programs. Some schools were more supportive of the music programs and encouraged their students to participate in various musical activities, while some schools did not perceive music to be as important as other subjects. Details regarding these topics are presented in Chapter Three under the research sites section and are discussed in further detail in Chapter Seven.

The next question, question eight, focused on the music curriculum of the school. This question allowed me to explore more on topics taught in class, the level of adaptation the music teachers needed in order to make the curriculum content most appropriate for their students, and the logic behind teachers' choices to prioritize some academic content over others. Curricula were one of the factors that could potentially affect student music achievement since it outlined lessons taught in classroom. Thus, the issue was worth investigating. This question also helped guide my student interviews. Now that I had a broad picture of what they learned their music classes, I was able to be more specific on this issue when I interviewed student participants.

Questions nine and ten were the two questions that prompted the teachers to articulate their thoughts and perceptions. The two questions asked about the level of satisfaction with the school music program, strengths and weaknesses of the program, and the significance of music education. These questions allowed me to understand what teachers perceived as important or unimportant. Once again, these two questions helped direct my student interviews. Because I had a clear picture of what was lacking, sufficient, crucial, or insignificant, I was able to be more specific when I asked student participants about their experiences in school music learning relative to their level of achievement.

During the qualitative analysis procedure, I realized that data obtained from teachers' interviews contained more than essential information about schools and music programs. These data represented attitudes, values, and beliefs that each teacher held in regard to their pedagogical and curricular decisions, logic behind their choices in priority, challenges and obstacles they experienced throughout their teaching. All of these seemed

to play a role in student music achievement. Moreover, data obtained from the teachers triangulated with data collected from student interviews. The combination of the two data sets helped clarify the situation that occurred in each school and allowed me new insights of potential factors that might have an impact on student achievement. Thus, I made a decision to also analyze data collected from teachers' interviews while acknowledging the fact that students were still the priority of my study.

Student Participants

Participants of the qualitative phase were selected students who indicated their wiliness to participate in individual interviews according to the responses on the student demographic and background survey questionnaire. Participants were selected using the purposeful sampling method (Creswell & Clark, 2018). Of all the students who participated in the quantitative phase and indicated their willingness to be interviewed, six students from five different schools who represented high and low achievement in music were selected. Rationale for selection included students' scores on MMAT and HMAT, types of school they attended, and recommendations from their music teachers. The criteria I set prior to the time of data collection were that students who scored higher than 80% would be categorized as high achieving, while students who scored lower than 50% would be categorized as low achieving. However, the situation forced me to lower my criterion for the high achieving category because – in some schools – the highest scores did not reach the 80% mark. Therefore, I lowered the criterion for the high achieving category to 70%. However, "low achievement" and "high achievement" in this study served for the purpose of categorization responding to the national curriculum only. These words did not determine achievement in students' lives by any means.

Besides the rationale mentioned earlier, I also selected both boys and girls from different grade levels for variation purposes. Nationalities were another aspect that I was interested in. Prior to the data collection, I aimed to include not only Thai students, but also students of various nationalities who studied in Thailand. However, my situation was constrained. Because I had no ability to control students' willingness to participate in the qualitative phase, the variety of nationalities that I hoped for was reduced to only one international student and one student with dual citizenship.

Once the selection of participants was complete. I began to contact potential participants and invite them to become participants of the qualitative phase. Once confirmed verbally, I sent out parental consent forms to students (Appendix P). The consent form included essential information regarding the study, researchers' contact information, and the reply slip for parents and guardians to indicate whether or not they allowed their children to be a part of the study. To protect the' confidentiality, I asked each participant to pick a pseudonym which was used for all the written materials. Background and demographic information of the student participants, such as school type, age, gender, and grade level are presented in Table 8 of this chapter. Detailed descriptions of each participant are presented later in Chapter six, the qualitative results section.

Table 8

Background and Demographic Characteristics of Student Participants in the Qualitative Phase

Name	School	Grade	Age	Sex	Total Scores %	Achievement
Boss	A	11	17	M	22%	Low
Momotaro	C	11	17	M	34%	Low
N.T.	D	11	17	F	84%	High
Bebop	E	10	15	M	72%	High
Not	E	10	15	M	32%	Low
Nerko	F	11	17	F	78%	High

Teacher participants

Five teacher participants in this qualitative phase were either music teachers or the head of arts department. Each participant was verbally approached and, later, verbally confirmed his/her willingness to participate in an individual interview. All teacher participants provided access and connection to the schools and students during the quantitative data collection. They assisted in arranging the time for data collection, preparing the venue, contacting student participants, and collecting consent forms from student participants. These teachers were also the key informants who yielded in-depth information (Onwuegbuzie and Leech, 2007). Throughout the process, I developed a great working relationship with these teachers.

Similar to student participants, teacher participants were selected using purposeful sampling (Creswell & Clark, 2011). Participating teachers represented different types of school, curriculum, nationalities, duties, and years of teaching experience. Some of them taught only curricular music. Some taught both curricular and extracurricular music. Once permitted, I proceeded by scheduling an individual interview with each of them. Backgrounds and demographic information of the teacher participants, such as school type, gender, years of teaching, and grade level, and general duties are presented in Table 9. Detailed descriptions of each participant are presented later in Chapter 6.

Table 9

Background and Demographic Characteristics of Teacher Participants in the Qualitative Phase

Name	Sex	Nationalities	School	Years of teaching	Position	Duties
Beard man	M	UK	F	4	Secondary music teacher	Teaching
Lunlilyn	F	TH	A	8	Head of Art Department/ Visual art teacher	Teaching/ Administrative
Moo Noi	M	TH	C	12	Secondary music teacher/ Music coordinator	Teaching/ Administrative
Marcato	M	TH	D	27	Secondary music teacher/ Band director	Teaching/ Administrative
Dan	M	TH	E	2	Secondary music teacher	Teaching

Note: UK = United Kingdom, TH = Thailand

Qualitative Data Collection

Teachers were interviewed first in order to establish the context of the study. Once confirmed, I let the teachers choose the dates, times, and locations that were most convenient for them. Every teacher chose to meet after school hours and at their school. After I arrived at the location, I greeted them and began with a casual conversation asking about their days or current work and projects that they were involved in before gradually transitioning into the actual interview. All interviews were recorded using the Voice Memo application on my computer. The interview protocol served as a guideline for semi-structured interviews. For the teacher interviews, I managed to follow the order of the questions precisely except when I interviewed a teacher from school D. Because of his unique experience in *the Basic Education Core Curriculum 2008*, I went off a tangent and prompted this teacher to speak about the development of this curriculum. Further detail about individual interviews are discussed in the upcoming chapter. Once finished, I informed teacher participants about the member-checking process and the estimated timeline of when they could expect to hear back from me. Each teacher was asked to pick a pseudonym during the member-checking process as well.

Similar to the process of interviewing teacher participants, the process of interviewing student participants began by contacting potential participants. Once agreed and consented by parents or guardians, student participants and I discussed the meeting location, which were either the school or a coffee shop nearby the school. When the students arrived, I greeted them and began the process with casual conversation asking about their schools, their days, and activities that they have been participating in or involved with lately before gradually proceeding to the actual interviews. All interviews

were recorded using the Voice Memo application on my computer. Since they were semi-structured interviews, the protocol served as guideline for questions. For most student interviews, I asked all of the questions but did not necessarily follow the order

I also provided them the blank copy of the music achievement test that they completed prior during the quantitative data collection as a reference when it came to questions regarding feedback on the test. The interviews began with students choosing the pseudonyms, introducing themselves with general background information, and then proceeded with the questions. Once finished, I informed and explained the process of member-checking and the timeline of when they could expect to hear back from me. Finally, I gave them a Starbucks gift card as a token of appreciation.

Data Analysis

Research question 3 – How do students describe their music experience, inside and outside of school, relative to their own level of music achievement?

In order to answer research question 3, I gathered qualitative data using individual interviews and information from the student demographic and background survey questionnaire. Merrium & Tisdell (2016) describe qualitative case study as a type of approach that explores individual's constructed reality in interaction with their social worlds delimited by the unit of analysis. Qualitative researchers using a qualitative case study approach are interested in how people interpret their experiences, how they construct their worlds, and what meaning they attribute from their own experiences as determined by the unit of analysis or a bounded system. Creswell (2013) described case study research as a qualitative approach in which researchers investigate a bounded system (a case) or multiple bounded systems (cases) through in-depth data collection

involving multiple data sources. For this present study, I am interested in how students' experiences and backgrounds relate to their own level of music achievement. Data were obtained from six students and five teachers from five different schools. Data from a student or students and a teacher from the same school were analyzed and compared. Thus, schools served as bounded systems for the present study.

The first step was to organize and transcribe raw data. Eight participants were interviewed in Thai and three were interviewed in English. The interviews were then transcribed and coded in the original language. One challenge of coding in Thai was the fact that it i is a tonal language. Thai words differed in tones. One ward can have multiple meanings if the tone changes. To acquire the most accuracy meaning, I consistently revisited ambiguous phrases and sentences to double check the meanings.

Once the transcribing process was over, I emailed transcriptions from the individual interviews to participants for member checking. Participants confirmed the accuracy with some additional comments. Next, using horizontalization and constant comparative analysis, I determined codes, categories, and themes that emerged from each data source. For purposes of crystallization, data were compared within and across sources – student and teacher interviews – to establish convergent and discrepant findings. The qualitative analysis was framed as an explanation of the quantitative data, showing how in-school and out-of-school factors might influence student music achievement. Qualitative data and analysis are presented through thick description in Chapter six. Thick description is a description of participant social behavior that explains not only physical actions, but also context as interpreted by participants for readers to better understand their actions (Greetz, 1973).

I began the analysis by reading through the interview transcripts and let the data speak to me. While reading through, I took the opportunity to pre-code by underlining and circling passages that stood out (Saldana, 2016). I wrote down on my analytical memo the potential codes, my initial thoughts, and outstanding issues, and participants' quotes relative to the research questions. The analytical memo served as an interface between participants' data and the researcher's interpretation. The analytical memo also assisted in the summary process especially when it came to writing the thick description.

The next step in the process was the coding. Since coding software was not available in the Thai language, both pre-coding and coding were done traditionally by hand. I decided not to translate Thai transcripts into English and coded them in the original language for two reasons: authenticity and time restriction. The nature of the Thai language is complex and elaborate. Translation into another language might result in distorting the meaning. Translation in general is also time consuming and could definitely affect the timeline of this study. Thus, coding was done in the original language but with English codes that were applicable for all cases (Appendix Q).

Through the first coding process, I looked for similarities across and within cases that could potentially develop into patterns, discrepancies within the same schools and the same school types, and things that strike me. I often revisited my research questions to keep me concentrated on what I needed to look for. As I continued to analyze the interview data, there were five factors that kept appearing and seemed to relate to student's music achievement. Those factors were students, parents, teachers, school music programs, and peers, Saldana (2016) stated in his book that "Quantitative analysis calculates the mean. Qualitative analysis calculates the meaning" (p. 10). With this idea

in mind, those five factors became three categories that I believed represented the essence of my data.

Trustworthiness

There are eight methods to verify trustworthiness suggested by Creswell (1998) including triangulation, prolonged engagement in the field, peer review, negative case analysis, clarifying researcher bias, member checks, thick description, and external audits. Creswell (1998) recommended that researchers use at least two methods to verify trustworthiness. Four methods were chosen for the current study, that is, member check, external audits, triangulation, and clarifying researcher's bias through bracketing and epoche.

Triangulation is an essence of the qualitative design. For mixed methods design in particular, the concept of triangulation was introduced in 1978 as a method of combining data sources to study the same phenomenon as well as a cross method checking. For the present study, the quantitative results might provide an overview of student music achievement in terms of individual scores, the average scores, the spread of the scores, and statistical differences of scores among participating schools. It was, however, only one dimension and did not provide any rationale behind the results. Lived experience of the participants allowed me to look at the quantitative results with new insights as well as helped strengthen the analysis and the conclusion of the study. Triangulation also occurred between the two data sources obtained from student and teacher participants. By combining multiple sources of the same system, I could further ensure the accuracy of information. The relationship between two data sources – students and teachers – is discussed further in Chapter Six.

Member check was another technique I chose to provide trustworthiness of this study. Interview participants were asked to engage in member checking to confirm the accuracy of the transcripts. Once the recording was transcribed, I emailed each participant his/her interview transcript in an electronic file format and asked them to read, confirm the accuracy of the content, and asked them to make additional comments. Participants were given a one-week time period to finish this task. Once finished, the participants sent the revised transcripts back to me in an electronic file format via email.

The external audit was used in order to verify whether or not my analysis and conclusion supported the data (Creswell, 1998). The interview transcripts and codebook were sent to two external auditors for the validity check after the second round of coding. Because of the language complication, I decided to work with two external auditors. The first auditor was a music education professor from a well-known research university in the United States and also experienced in mixed-method research. The second auditor was the school director from Thailand and also a Ph.D. candidate in organizational leadership, policy, and development from the same research university. Both auditors confirmed my codes and the accuracy of data analysis. Several codes were suggested by the American auditor, such as outside influences, self-taught, self-initiated, and choice. Some of these codes captured the essence of the data better than my original codes. Therefore, I made an adjustment in the codebook according to the expert's suggestion.

The final method I chose to verify the trustworthiness is clarifying my own bias through bracketing and epoche. According to Tufford & Newman (2010), bracketing is a method that researchers use to mitigate any negative effects caused by unaware perceptions related to research projects. It is a vital step as it provides researchers

opportunities to suspend their judgement, set aside their biases, and allow researchers to concentrate on participants' lived experience. Thus, I would like to reflect upon my personal experiences through the following epoche.

Before I came to the University of Minnesota, I worked as a middle school and high school music teacher for seven years in Bangkok, Thailand – one year at a Singaporean-system international school and six years at an American-system international school. Through my years of teaching, I experienced similar problems that kept occurring in music class, which I could identify as a pattern. The problems involved in the educational inequity and inequality in Thailand were explicit. Such problems include the lack of academic standards especially in music, which was the result of the inconsistency of teacher quality, inappropriate curriculum, educational policy, institutional financial issues, and students' personal financial issues. Those problems were the beginning of my line of inquiry. They pushed me to pursue my higher degree at the University of Minnesota hoping that I could use my knowledge and experience learned from the Ph.D. program to develop and lift up the standards of Thai music education. This was the main reason why my study stayed so close to school music programs in Thailand. They were the center of my research curiosity and the first aspect of Thai music education that, I hope, to alleviate.

Because my lived experience connected directly with my research topic, I had to be careful with my personal bias. Since the beginning of the study, I consistently pondered my role and how to position myself appropriately in each situation. I was aware that, during data collection process, I took part as a participant observer. The nature of my data collection allowed me to interact and cooperate with students and teachers from

participating schools, which made it easy for a researcher like me to make assumptions prior to data analysis. Along with the process, I consistently reminded myself to look at the data neutrally. I reflected on my data analysis until I was certain that my conclusion was neutral and not influenced by my own bias in any ways.

I was also cautious whenever I was in the field for data collection at the school that I have a personal connection with. One school, out of the seven participating schools, was the school that I once worked at as music teacher for six years. When on that specific site, I had to be extra careful not to let my personal relationships affect the way I treated participants and analyzed the data. At the beginning of the examination for quantitative data collection, I introduced myself and my research project to the student participants, then I stated clearly that my role on that day was a researcher. I did not come in as a music teacher. Therefore, I expected them to understand my duty and treat my music achievement tests, MMAT and HMAT, as they would other standardized tests.

Method Limitations

There were several limitations concerning the qualitative phase of the present study. The first restriction was time and location. Because this was an international study, I had limited time to spend between two countries in order to do data collection and to complete the dissertation. The actual time to process both quantitative and qualitative data collection was limited to five months. This included contacting schools, following up, and waiting for their approval. By the time I finished quantitative data collection, I had to pursue the qualitative data collection immediately without running inferential statistics to determine whether or not significant results existed. Only summary statistics were calculated in order to determine student participants for the qualitative phase.

Consequently, interview questions did not delve into the reasons associated with school factors that could, perhaps, influence student music achievement. Only general and non-specific questions were raised regarding school factors.

The second limitation was access to and willingness of interview participants. Of all seven schools participated in the quantitative phase, only five schools remained participating in the qualitative phase. Ideally, I intended to interview seven students and seven teachers for complete and accurate information. However, for school B, I was able to interview only the music teacher. I was not able to reach the potential student participant from school B after several attempts were made. Therefore, school B was no longer included in this phase because of this incompletion. The situation was worse with school G. I was not able to reach both potential teacher and student participants. School G was an all-girl boarding school. The rules were much stricter. The communication between an outsider and the school members was also difficult compared to other schools. My attempt to contact the teacher was not successful. Therefore, no participants from school G proceeded into becoming qualitative participants.

Chapter Summary

This chapter provided detailed descriptions of the procedure for sampling, data collection, and data analysis specifically for qualitative phase. Student demographic and background survey questionnaire collected during the quantitative data collection was used to identify student participants. Teacher participants of this phase were teachers or administrators from the participating schools. Data collection began with teacher interviews. Five teachers from five different schools participated in individual interviews. Interview questions focused on topics such as work background, curriculum, musical activities, music program overview, and significance of music in students' lives. Student interviews began immediately after quantitative data collection was over. Six students from five schools who represented low achieving and high achieving participated in this phase. Interview questions for student participants focused their background, school atmosphere and culture, feedback of the achievement test, student's perception of school music, student's perception of the music teacher, and student perception of influential factors on music achievement. Four methods to verify trustworthiness were chosen for the study, that is, member check, external auditor, triangulation, and clarifying researcher's bias through bracketing and epoche. Finally, method limitations were discussed. Two limitations were found throughout the process of qualitative data collection. The first limitation was the time and location restriction. The second limitation was the access to and willingness of interview participants. The next chapter presents the qualitative results obtained by the researcher using methods discussed in this chapter.

CHAPTER VI

QUALITATIVE RESULTS

The qualitative analysis of this study is designed to provide in-depth information that can further explain the assessment results from the quantitative phase. This chapter begins with an overview of the qualitative analysis. The next section is organized according to the bounded systems or the schools. The section begins with a detailed description of each school. This is followed by a detailed presentation of cases, that is, the teacher and the student(s) of the school. Student participants were the focus of the study. They shared their experience in school music, school culture and atmosphere, music background, feedback of the music achievement test relative to their prior knowledge, music class routine, perception of the music teacher, and perception of influential factors. Teacher participants were the key informants who yielded in-depth details of the settings (Onwuegbuzie and Leech, 2007). They also shared their values, attitudes, beliefs, and rationales behind their curricular and pedagogical choices. The two qualitative data sources – teachers and students – were merged and analyzed using horizontalization and constant comparative analysis. The final section of this chapter is a presentation of categories following Saldana's (2016) streamlined codes-to-theory model for qualitative inquiry. The qualitative results are used to answer the research question three and integrated with the quantitative results for an in-depth understanding of the study.

The next section presents a thick description of schools A, C, D, E, and F. In the previous quantitative phase, there were seven schools that participated. Due to communication restrictions, only five schools proceeded to the follow-up qualitative

phase. There schools were the schools where I interviewed at least one student participant and one teacher participant. For the purpose of trusthworthiness and triangulation, it was essential to include both students voices and teachers voices.

School A

School A was located in the heart of Bangkok on one of the busiest roads of the city called Sukhumvit Road. The school was surrounded by urban entertainment, such as malls, retail stores, movie theaters, fitness centers, restaurants, cafés, and bars. School A was only a few minutes away from the major public transportation of Bangkok, that is, the BTS sky train. Sukhumvit was known as a "trendy" neighborhood and considered to be both commercial and residential. Thee area was full of gigantic office buildings alongside the old houses and tenement houses clustered in one city block.

Ironically, school A did not at all capture the vibes and the luxury of the neighborhood. School A was a public school that had over one hundred years of history. At first glance, school buildings were old – reflecting all those long years. The buildings were traditional Thai style, open-air structures with off-white cracked paint. Looking inside the classrooms, I saw worn out wooden tables and chairs, chalkboards, ceiling fans, and no more.

School A was once a "temple school," the type of school that offered informal education to Thai boys who were sent to learn Thai language and culture. The first temple school was founded by King Rama V in 1884 as a part of his educational reform. The King's intention was to make education accessible and affordable for his people who were not noble men or royal family members (Fry & Apahung, 2018). Although school A

was promoted into an official public school in 1902, the "temple school" elements were still there – all boys, no fancy resources, and only the bare essentials were provided.

As I proceeded to the main gate on the first day of data collection, I immediately noticed a large open-air gymnasium surrounded by school buildings and school office buildings. The gymnasium also served as a multi-purpose hall as I noticed students' military practice, soccer practice, and students hanging out. All of these activities happened at the same time under the roof of this open-air gym. I continued walking past groups of boys in their school uniforms – white-short sleeves shirts and khaki shorts – hanging by the gym stands, chatting, eating, and scrolling through their cell phones. The school area was big and had a unique layout. Among those school buildings, I got lost. I stopped and asked one of the staff where the arts building was. She greeted me back and kindly gave me the directions with a smile on her face.

A few minutes walk from the gymnasium, I found myself in a new compound. The buildings in this compound were smaller than those in the main area. The atmosphere, however, was the same – old and full of history. I looked around for signs but could not find any. Suddenly, I spotted a classroom full of art projects and art props. Even though I did not see any signs for music or art classrooms, I at least knew that I was in the right compound. I pulled out my phone and dialed the number I was given just a few days before.

Lunlilyn

The young lady approaching me had a thin figure and looked about 160 centimeters tall. She had long-black hair pulled back in a ponytail. I could feel her relaxing personality even from the way she walked and smiled at me. My first

impression was that she looked so young for her position. She was Lunlilyn, the head of arts department and the visual art teacher. A few days before my first visit, Lunlilyn gave me a call saying that she had read my dissertation proposal and was happy to help. Over the phone call, she also asked whether or not I could come in for the quantitative data collection in the next two days. It was a short notice, but I gladly accepted. She gave me her personal phone number and told me to call her when I arrived at the arts building. I was excited because this was my first data collection on site. I held on to my prepared copies of the music achievement test tighter while smiling back to her.

Lunlilyn introduced herself while we were walking to her office, which was located on the third floor of the arts building. Similar to the classrooms I saw earlier, Lunlilyn's office was modest. There were six teachers' desks cluttering the room, a small refrigerator in the corner, ceiling fans, and piles of paperwork everywhere. I sat down on a wooden chair facing Lunlilyn while telling her more about my study. She was very interested and asked several questions back. We had a great start off conversation. Lunlilyn, then explained to me the class schedule and students whom she chose to be my quantitative participants. She also explained that she passed my proposal to the music teacher several weeks back but, apparently, the music teacher did not take any further action. Therefore, she had to step in and proceed instead. I could immediately feel the tension between Lunlilyn and this music teacher whom I, later, found out to be a mid-fifty-year-old man in his late years of teaching. Day one of data collection went well. Since I could not complete both middle school and high school data collection on the same day, Lunlilyn gave me several options to come back for the second data collection.

Prior to my second visit, I asked Lunlilyn if I could interview her for further information about the school and her thoughts on school music program. "Of course," she said. "I've helped a few master students with their theses already. I, myself, was a master student not long ago, too," she added pleasantly and suggested that the best time and place for an interview would be during her free periods in the afternoon, at one of the art classrooms. On the day of the interview, we sat down together in a large art classroom. This was where Lunlilyn usually taught. I started off with a casual conversation asking about her day and what had been going on in the school before I gradually transferred to the interview questions that I had prepared. Lunlilyn was an easy-going, articulate, and confident person. The interview flowed from the first question until the last one. I learned that Lunlilyn had worked at school A for eight years. She started off as a visual art teacher and was promoted to the department head later.

School A was a large school with approximately 1,700 students attending the school that academic year. When I asked about characteristics of students, Lunlilyn laughed before answering: "Academic – not strong, sports – can't wait, activities – very active" (Lunlilyn, personal communication, October 14, 2019). Apparently, sports, especially soccer, were a big part of the school culture. It was typical for students of an all-boy school to be eager to participate in more active activities. I, then, asked her specifically about art and music. She explained to me that there were some strong artists in the school but not as many as strong athletes for sure.

"But that doesn't mean they're not smart, you know. These kids are very smart. They're just lazy. They like to follow their friends around and do what the majority does. They really stick together and bond with each other. I mean, the academics could have

been better if they paid attention. But there are just too many distractions around here"

Lunlilyn said. I listened to Lunlilyn describing her students. She knew them well and

understood the nature of teenage boys. Besides her relaxing personality, I could also feel

that she was a genuine teacher who truly cared for her students.

I changed the subject and asked more about the curriculum. I learned that the arts

here were mandated, but the subjects rotated every year. For example, students learned

visual art while they were freshmen in high school. Then they would learn Thai Classical

music and Western Classical music when they were in their sophomore year and

performing art in the junior year. I asked Lunlilyn if she thought this was enough. She

was positive about it and said that, at least, this curriculum structure allowed enough time

for students to concentrate on a single subject, which was better than splitting off the time

so that students could not learn in-depth content or did not have enough time to practice

their skills.

Lunlilyn's reaction changed when I asked about school annual budget, resources,

and facilities. She gave a tired facial expression while explaining about the school budget

system. As the department head, Lunlilyn was responsible for departmental budget

planning. Since school A was a public school, the annual budget came directly from the

government. The amount of money was calculated based on the total number of students

attending the school each year. Unlike other schools, there was no additional support

from a parent or alumni association. Each year she had to submit a plan for the coming

academic year and would usually receive a tight budget of 150,000 baht or approximately

$5,000 US dollars, which was not enough for the needs of a large student population.

This amount of money would, then, be divided among departments, that is, visual art,

performing art, Thai Classical music, and Western Classical music. Office supplies were also included in this budget. This meant that teachers would have to spend this limited amount of money on stationery as well as other art and music supplies required for teaching. This was the major reason why music resources and facilities at school A were poor and inadequate. According to Lunlilyn:

Some of the music instruments have been here since the school was established. During an inventory check, I found out that one drum had the 28 code, which was the year [BE] that this drum was purchased. And I was shocked. This drum is older than me. It's broken and it's still here!

I asked her what she did with this drum. "I had it fixed. We just keep fixing things until they can't be fixed anymore". Lunlily said to me.

The next topic we discussed was the curriculum content and how much teachers had to adapt to fit the needs of their students. Lunlilyn explained to me that school A strictly implemented *the Basic Education Core Curriculum 2008* as recommended by the Thai government. Standards and benchmarks were used for all summative assessments which were mainly written exams. She explained to me that the school put a lot of emphasis on the theory side and less on the practical side of the arts. As an artist, she did not completely agree. She believed that the emphasis should be on the practical side in order to enhance students' artistic skills. However, she had no choice but to follow the school policy. I, then, specifically asked about the music subject. She shrugged before saying, "No structure whatsoever. He [the music teacher] did what he wanted to. He just doesn't care" (Lunlilyn, personal communication, October 14, 2019). As a young administrator, Lunlilynn frequently experienced employee resentment, especially from

older teachers who still believed strongly in seniority. I quickly took note of this because the music teacher was one of the main factors that I suspected to have an impact on student music achievement.

The last few questions I asked Lunlilyn involved her perception of the arts department and the significance of art and music education in students. Without hesitation, she stated that the biggest problem in the arts department was the people. She also stated that the strength of her department was the system that she spent years trying to build. Lunililyn believed that a good system could control bad employees. If the system was strong but the workers are not, at least the department runs. That was why she put a lot of work on building a good system and used the system to control the people.

"And why do you think students need music and art in their lives? What do they do to them?" I prompted Lunlilyn with these final questions because I wanted to hear more about her attitude and what she valued as a teacher and the department head. "They are aesthetically pleasing. The arts have an ability to soften people. Even the most aggressive boy can be refined through the arts." Lunlilyn closed the interview with this beautiful statement with which I could not agree more.

Boss

Several weeks after talking to the teacher, I finally scheduled a meeting with the student from school A. Boss was one of the quantitative participants who designated his willingness to be interviewed. Boss did not do well on the music achievement test. However, I learned that he was a guitarist, a bassist, and a singer from our brief conversation after the quantitative data collection. His case was very interesting. I kept

questioning myself, how come a musician could score so low on a music achievement test? I understood his case better through our conversation.

Boss walked into the coffee shop nearby the school on one weekday afternoon, which was the place and time he requested to meet. I was surprised he did not wear his school uniform since it was a weekday. Instead, he was wearing a red plaid shirt and dark denim jeans with a crossbody bag and worn sneakers. His hair was black and in a short-student hairstyle that most Thai public-school boys were required to wear. He looked about 170 centimeters tall, had natural tan skin, and a relaxing personality. I greeted him. He smiled back timidly and sat down in front of me. Boss was a little quiet at first. But after a while he became more comfortable and started to talk to me more. "No school today?" I asked while looking at his outfit. "Uh…yes. But I skipped." He laughed a bit when he answered. "I had a photography gig at a university commencement ceremony this morning." He added. I realized that his crossbody bag was actually a camera bag. "So, you're a photographer too?" I asked. "Occasionally. I'm still practicing. But I'm pretty good at it though," Boss claimed. His answer did not come off as arrogant. Instead, he sounded very humble but confident and passionate in what he did. Shortly after, I learned that photography was not the only job Boss did. He also worked part time at a local restaurant on weekends and occasionally busked with his musician friends at the local community mall. "It's just for fun," he said when I asked about busking. "But we did actually make a substantial amount of money from busking." I asked casually if photography or music was something he wanted to pursue in the university. He said he was really interested in studying photography and his parents were fine with his decision, although, they did not quite agree at first. He also added that his parents actually wanted

him to study in the mathematics-science program. But he knew that it would not be right for him. Fortunately, his parents listened and understood.

The interview began with Boss introducing himself and telling me about his background. He was an eleventh grader who was interested in the arts a little bit more than academics or sports. I learned that Boss had many friends at school and would hang out together with them as a big group. Similar to what his teacher said, school A students tended to stick together and really bonded with each other. "They're crazy but so fun to be around. It made the school atmosphere very friendly" Boss described his friends.

I handed Boss a blank copy of the music achievement test that he completed during the quantitative data collection and asked for his feedback. He flipped through, frowned, and said that it was difficult. Only a few topics were familiar to him, such as note reading, scales, and music instruments. Some of the prior knowledge he learned from school music class. Some he learned from the music camp several years before. I asked him what exactly he learned from his school music teacher. He explained that he learned some note readings, which he did not understand: "He [music teacher] went too fast. He was not very good at explaining things." Boss also explained that he and his classmates listened to music a lot. Because his music teacher was a guitarist, students had opportunities to play guitar as well as some recorder. Boss continued, "But we didn't have enough guitars for everybody. We had to share, five to six students per one guitar. But we had enough recorders though." I listened to Boss describing music resources at his school and wondered. I remembered Boss telling me that he plays the guitar, the bass, and sings in a band with his friends. I quickly learned that those were extracurricular activities which had nothing to do with school music at all. According to Boss:

Playing instruments is my favorite part of learning music. And I'm already a musician so it's not difficult for me to pick up. Learning music theory and general knowledge of music usually confuses me. I would love to have more practical time in music class though. I think playing instruments actually helps us understand the foundation of music better. Once we know the foundation of sound, the theory should become easier.

This could be one of the reasons Boss did not score high on the music achievement test. It was not because Boss did not like music. He liked music. He was an active musician. Somehow the music teacher's pedagogical choices did not help or encourage him to learn. I immediately took note as I began to draw a connection to what Lunlilyn said couple weeks back about the same music teacher.

The next thing Boss and I talked about was his music background and musical activities outside of school. As I already knew, Boss was involved in a lot of musical activities. Besides his rock band, he also participated in a singing contest and was awarded with a bronze medal. I was quite impressed because this competition was held by the Thai Ministry of Education. However, Boss told me that he did not take any private lessons or receive any coaching before he competed. He just practiced at home by himself with a little bit of advice from his rock band mentor.

My last few questions for Boss focused on his perception of school music and factors that could impact one's music achievement. "What do you think should be taught in music class?" I asked him. "The basics" he replied firmly. "Music theory is like math. You have to know the basics before solving difficult problems. You also need to listen to music and play instruments a lot. It would help you understand the structure of music

better." Before parting, I thanked him with the Starbucks gift card and informed him about the member checking process. I also asked him one final question, what would he do with music in the future? He smiled and told me that he would continue to play music regardless of what he chose to study in the university.

School C

School C was located on a street between the two oldest roads of Thailand. These two roads were also the major business district of Bangkok called Silom road and Sathorn road. Silom and Sathorn have become one of Bangkok's most cosmopolitan streets and a major financial center. This area was a home to some of the largest companies and many insurance firms. School C was a true metropolitan school. Commuting to school was convenient for staff and students because the school was surrounded by major public transportation, such as the Metropolitan Rapid Transit (MRT underground), the Bangkok Mass Transit System (BTS sky train), and buses. The school was situated in the busiest area of the city.

School C was a prestigious all-boys private school founded by a group of American Presbyterian missionaries. The school had 167 years of history and was the first private school of Thailand. A great number of Thai public figures were alumni of school C, including privy councilors, prime ministers, ministers, and celebrities. Because of its reputation, the school has high standards and is very selective when it comes to admissions. Prospective students at all levels needed to pass a rather competitive school entrance exam, even for kindergarten students going to grade one.

It took me nearly an hour to get past the security guard and to figure out which "side" of the school I needed to go to. The security system was definitely stricter than

other schools I had visited. School C was not large considering its area. But it was certainly crowded and had an interesting layout. The campus was divided by a small street that connected Silom and Sathorn together. One side of the school was the main area with the large soccer field located at the middle and surrounded by school buildings and office buildings. The buildings on this side looked old but well-maintained. There were walkways which connected the buildings and an overpass connected the two sides of the school. The other side of the school looked smaller and less crowded. I noticed only one big and tall building that seemed like a new addition to the school.

As I arrived, I immediately noticed that the school was having some kind of an outdoor event. There were students walking, cheering, and chanting. First, I thought it was the school sport day. Then I started noticing a few press reporters and cameramen shooting the event and interviewing some of the students. I also noticed numbers of adults wearing black shirts walking around campus. I found out later that those adults in black were parents and alumni. I, then, realized that this was not a sport event or a school activity. I found out later that this day was a protest against the current school director who was accused of corruption. The protest was led by parents and alumni who chose to wear black as their symbolic statement. Parents and alumni seemed to have strong influences and could, perhaps, contribute to any decisions that the school board would make, I told myself while approaching the security guard at the front gate. I presented my ID and asked the security guard which direction was the music department. The guard refused to let me in. He insisted I wait at the front gate and called the teacher I had contacted to come meet me there instead.

Moo Noi

Moo Noi, was a big guy in his early thirties. He looked taller than the average Thai man, about 180 centimeters. He had short black hair, fair skin, and a recognizable Thai-Chinese face. Moo Noi wore a black polo shirt – matching with other protesters – and light-colored pants. He greeted me with a smile and started walking me toward the building. While walking, Moo Noi asked me some questions about my study proposal which he had not yet read. I explained it to him. He seemed fascinated by the fact that I was in a music education Ph.D. program more than the study itself.

Only a few minutes from the main gate, we arrived at building five. Moo Noi led me in the elevator and pressed number seven. He explained to me that the seventh floor was dedicated to the music department. The building was old. There was nothing special in term of architecture and interior design – just a typical school building. However, four elevators and all air-conditioned classrooms suggested to me that school C was probably more well-off than the normal Thai school, and I was right. Although the school exterior design was simple, the inside was a total opposite. There were only two rooms on floor seven – one was the staffroom, and the other was a large rehearsal room with an impressive collection of orchestra instruments. The rehearsal room had a divider that could easily turn this large rehearsal room into two medium sized rehearsal rooms. The wall was soundproof. The floor was carpeted. The room was large enough that at least three hundred students fit into this room comfortably.

Compared to the music rehearsal room, the staffroom looked less fancy and not as spacious. However, it contained all the facilities that teachers needed. Five desks were lined against the wall with a small living room set at the corner. I sat down on a chair

opposite of Moo Noi. He, then, introduced his two other colleagues to me – the elementary music teacher and the Thai Classical music teacher who, later, became my key informants and gatekeepers as well.

The usual process for most schools recruited to become research sites included a pre-data collection meeting. This refers to an in-person meeting with the music teacher of the school in order to discuss the data collection process and giving the teacher an opportunity to get to know me and to better understand my research. This meeting helped establish a sense of comfort, familiarity, and trust between me and the teacher. This was the first step toward building a personal connection. Personal connection is an essential aspect of the work culture in Thailand. Once people felt connected, they automatically became more engaged and willing to help without asking for anything in return. Therefore, I made an effort to build a relationship with each teacher that I worked with. School C was not an exception. I paid my first visit to the school and spent over one hour talking to Moo Noi and his colleagues about the quantitative process, the rationale behind the study, the school, the music program, trends, and issues in Thai music education. We had a great conversation, filled with understanding and ideas. By the end of conversation, Moo Noi and his friends became warm, relaxed, and were willing to help with anything I needed.

I was scheduled to come back few days later for the middle school data collection, high school data collection, and the teacher interview. Because of the collaboration among three music teachers, I was fortunate to get all tasks done in one day. The day began with an interview with Moo Noi in the morning. We sat down at the same table. I began the interview with casual conversation asking about his day, the school, the protest,

and activities he had been involved lately before gradually transferring to the questions I had prepared. I learned that Moo Noi has been a music teacher at school C for twelve years. He was also an alumnus of this school and had a strong connection to the school community. His main duty was not teaching curricular music. He was actually hired to be the band director and an event coordinator. He would sometimes teach a few music classes depending on the needs of each semester. However, his main job was to conduct the orchestra, symphonic band, marching band, organize music competitions, performances, and other extracurricular courses. According to Moo Noi:

> If you are asking about school strengths, I would say all. Academics here, as you know, is one of the strongest in the country. Sports are strong too. Music is also one of the highlights that sells. So, it is hard to pinpoint what is really outstanding here. Because all areas are outstanding.

Moo Noi smiled confidently, and I could tell that he was proud. He did not exaggerate. School C was really famous for many reasons, which was why it was so competitive for students at all levels to get in.

I asked Moo Noi to speak about his students. Students at school C focused heavily on academics and were under a lot of pressure from their families to achieve good grades. The parental influence and the academic oriented mindset resulted in students' negative attitude toward non-academic activities. Moo Noi told me that one of his challenges was student recruitment. Each year he had to use all the strategies he could think of to convince students to join the orchestra. His strategies were interesting. Instead of advertising the benefits of playing music, Moo Noi used the university application portfolio as the main reason to convince students to participate. Because of the academic

oriented mindset, students at school C generally found music not appealing or beneficial to them. As the band director, Moo Noi instilled the idea of how participating in music can enhance their portfolio, which would positively impact and enhance the quality of university applications.

"What are some of the highlighted musical activities here?" I asked. "Oh, that must be international competitions." Moo Noi answered. He further explained that for the past few years the school orchestra participated in annual music competitions. The school was very supportive and expected them to win. The school also sponsored approximately 50% of the trip expenses. And the rest came from fund raising activities, alumni association, and the parents of participating students. "Of course, it costs a lot. But we can manage every year." Moo Noi explained. His level of commitment was impressive. He also shared his experience at his first competition in the United States with me. He encountered many problems – from flights, accommodation, local transportation, to renting musical instruments. A few of things I noticed about Moo Noi were his courage, dedication, and commitment. He was not afraid of the challenges or obstacles. He dedicated his 100% to the students and also committed to perform the best in any duties he was assigned to.

School C music budget was significantly more than any schools that I knew of. Each year the music department received five to eight million baht or approximately $16,666 - $26,666 US dollars. "Facilities here are great" he added. "The instruments are top quality. The music budget here is really, if you don't compare it to international schools, I think it's probably the best in country." Moo Noi proudly described. Again, he did not exaggerate. From what I saw, school C put a lot of emphasis and invested a lot of

money in their music program. School C students were fortunate. The inequality and inequity in Thai education was an important piece behind this study. The information I received from Moo Noi would allow me to investigate the issue further.

Interestingly, when I asked about curricular music, Moo Noi did not see it as important as the after-school orchestra program. "I think the curriculum stuff is specifically for the university entrance exam. The kids only need it when it's close to the exam time and only if they are interested in studying music in the university," Moo Noi expressed his opinion regarding curricular music. Although the music budget of school C was far greater than other schools, it seemed that the school only focused on the afterschool orchestra and the competition side of music rather than the curricular music or the music collaboration.

The last question targeted the teacher's thoughts on the significance of music. He explained to me that music itself has a positive impact on child development. He also believed that music appreciation affects the humanity side of our children. "You need both, you know. You need science and you also need the arts in order to balance us as human beings". Moo Noi closed the interview with his beautiful statement regarding the significance of music.

Momotaro

Of all potential participants from school C, I purposely chose Momotaro for two reasons. First, his low music achievement scores seemed to contrast with the fancy music program of his school. Second, he was an experienced Thai Classical musician who expressed very interesting thoughts about the parallelism of Western Classical music and Thai Classical music in his essay question.

Momotaro asked me to meet with him on a weekday afternoon, after school hours. We met at the same building where I interviewed his teacher but on a different floor. With the help of the Thai Classical music teacher whom I met through Moo Noi, we were able to use the Thai Classical music room for our interview. The room was not as big as the orchestra room but still quite spacious. I saw various kinds of Thai Classical instruments laid on the wooden floor. They were arranged ready for the ensemble practice. The collection of old Thai Classical instruments gave the room such a spiritual sense as I walked in. I could tell that school C probably had a strong Thai Classical music program as well, judging from the decent collection of instruments and a teacher specified to teach this musical genre.

Momotaro knocked on the door before coming in. He was wearing a school uniform – white short-sleeve shirt and black shorts. He was a tall, skinny boy, had short black hair, with a calming and mature personality. The teacher officially introduced us and left the room. I greeted him while he sat down in front of me. Like typical teenage boys, Momotaro was quiet at first. He began to feel more relaxed and talked more as the conversation went by. I began by asking about his day and the school to relax the atmosphere. The actual interview started with Momotaro introducing himself. His background was intriguing. As an eleventh grader, Momotaro was involved in quite a few interesting activities. When I asked about school music, Momotaro stated that the only time he ever learned music in class was in tenth grade. "But I didn't learn much. All we did was listening to some music from different countries and talked about musical instruments. We also talked a bit about famous artists. That's all" Momotaro described his experience in school music. He further explained to me, "I feel like those were just a

small part of music while there's so much more to learn." From what Momotaro said, I

related back to my conversation with Moo Noi couple weeks ago. At school C, curricular

music seemed not at all important, especially compared to the afterschool orchestra. I

wondered if this was the reason Momotaro did not score high on the music achievement

test. I wondered if school vision and direction was one of the factors that could

potentially impact student music achievement.

Next, I provided Momotaro a blank copy of the music achievement test he took

during the quantitative analysis and asked for his feedback. "I don't know how to read

notes. All of these topics, except for Thai Classical music, were unfamiliar to me"

Momotaro said after he went through a blank copy of HMAT. "All of them?" I asked for

a clarification. "All of them" he replied. This was unexpected. Although I knew he did

not learn much from school music. I, at least, thought he would have been familiar with

basic music concepts, such as notes on treble clef, simple note values, or time signatures.

Apparently, all these topics were new to him. However, this limitation did not make

Momotaro less of an artist. In fact, his ability to play, analyze, and his appreciation for

Thai Classical music was beyond the level of regular teenage boys. When I asked about

his journey in Thai Classical music, his eyes sparkled. He was enthusiastic to talk about

it. Momotaro started playing Thai instruments since he was in middle school. He

performed countless times and joined various competitions. This was how I learned that

the boy was actually an active and experienced musician, just not in Western Classical

but in Thai traditional music. According to Momotaro:

It [Thai Classical music] is all about the connection among the ensemble

members. Once we are connected, the music just flows. We're like family,

really. And our relationship certainly affects our performance. Personally, I enjoy Thai Classical music much more than Western Classical music. And I think all Thai children and teenagers should start learning our traditional music before learning music from the West. It is our national identity. The younger generation does not care for Thai Classical music anymore. They think it's boring. Only the elders do care. I think it's time to change that attitude. We need to update the Thai Classical music and make a connection to the musical world of today.

His thoughts were profound. He understood the nature of Thai Classical music and the trends very well. Even though Thai Classical music was only a small part of my achievement test, it brought out a unique perspective from the boy whom I categorized as "low achieving." Momotaro also listened to different kinds of music, not only for leisure but for analytical purposes. Thai Classical music was the genre that he listened to the most, especially before a competition. He would listen to and analyze the components in order to prepare himself. Momotaro also did the same when he listened to commercial or popular music. He told me that he listened to commercial music only for leisure but could not help noticing parts and other components such as melody, rhythm, and harmony. "I'm used to analyzing songs. Anything I listen to, I analyze. It has become my habit now" Momotaro added.

I then asked Momotaro about his future plans. Once again, Momotaro surprised me by telling me that he has also been practicing his culinary skills since he was little and was thinking about pursuing it in the university level. Momotaro's family owned a local restaurant. He grew up in the kitchen and had been watching his grandmother cook since he was very little. Momotaro further explained to me "both cooking and Thai Classical

music are my passions. Even though I am leaning more toward studying culinary in the university, I will never stop playing music. It's a part of who I am." Momotaro was fortunate enough to know himself and to know what he wanted to pursue for his future. I smiled and nodded while listening to him talking so passionately and confidently about his future.

Lastly, I asked Momotaro about factors that, he believed, affect one's music achievement. "Passion, dedication, and discipline. You need to have those to become advanced in any kinds of music," he said. "But can a person be good at music without being passionate? What if a person practices a lot just because he is a responsible person?" I challenged him with this additional question. "He may be good. But we never know if he's happy or not when he plays his music," Momotaro replied. I smiled even bigger at his final answer. Momotaro was absolutely an artist. His skills and experience could not be assessed by this achievement test alone.

School D

Located in Wang Thonglang district, school D was an extra-large, co-educational public school with approximately 4,000 students. Wang Thonglang was a suburb that gave a down-to-earth feeling. The area was primarily residential with some community malls, local shops, and local restaurants spread out across the district. The main transportation of the area was through the three major roads of Bangkok, Ladproa Road, Pradit Manuthum Road, and Chalong Rat Expressway. Landmarks of the Wang Thonglang district included a major museum, a national research institute, and local food market. School D itself was considered the landmark of the district. The school was the hub of the *Institute for the Promotion of Teaching Science and Technology* (IPST)

specializing in chemistry. Besides the academics, school D was also involved in various community projects. The institute was a part of the local culture as well as the community center for learning.

Vast and widespread were the two words that came to my mind as soon as I arrived at the school. The exterior wall was at least three kilometers long. I pulled over at the main gate, lowered my car window, presented my ID, and informed the security guard of the reason for my visit. The guard greeted me back and said that the teacher was expecting me and that he was already informed about my visit. He also directed me to the reserved parking spot that he had arranged. I felt relieved and thankful for how prepared this teacher was. I thanked the security guard, parked, turned off the engine, and grabbed my proposal from the backseat of the car.

As I walked past the outdoor basketball court and the soccer field, I noticed that all buildings were spread out into smaller compounds and connected by walkways. Each compound had either an activity court or a pond at the center. The buildings were not tall, about four stories. They were painted in white with blue trim. All buildings seemed to be well maintained and in a moderate condition. Because it was a recess time, I saw many students hanging out, studying, chatting, and eating. I also spotted a group of high school girls practice dancing at the activity court with the sound K-pop music from a portable speaker accompanying them. I walked past those students and stopped at the end of the walkway of the compound.

Marcato

I knocked on the staffroom door designated for music teachers. The gentleman who opened the door for me was in his mid-fifties. He had gray hair, a lightly wrinkled

face, and tan skin. He wore a button-up shirt and slacks. Marcato asked me to sit down

on one of the chairs in front of him. A few weeks before my first visit at school D, I had a

chance to speak with Marcato on the phone call I gave the school in order to follow up

with permissions. Marcato told me that he had already read my proposal and would like

to talk to me more in detail. I agreed to meet him for the pre-data collection meeting.

As we began to talk, Marcato pulled out a copy of the proposal that I sent to the

school a few weeks back. I noticed that he underlined, circled, and wrote down some

notes on the copy. He was probably the only teacher who read the entire proposal

thoroughly. Marcato started asking me some detailed questions regarding the data

collection process. I explained the procedure to him. He suggested that the best day to do

data collection would be the day before the school sports day since there were no classes

for students. All of them would spend the entire day preparing for the event. We

scheduled the date and time, which was a month from the day of our meeting.

Marcato was also interested to know in-depth information about my study. He

asked further questions regarding the purposes, research inquiry, research instruments,

and rationale behind my methods. When I told him that my music achievement tests –

HMAT and MMAT – were created following *the Basic Education Core Curriculum 2008*

and there was very limited information regarding the development of the curriculum, he

squinted and said, "Well I was one of the music teachers selected by the Ministry of

Education to be a part the curriculum development." I immediately asked him to speak

more about it. Marcato walked me through the process of curriculum development (see

Chapter Two) while expressing his thoughts and opinions. The information I received

from him was absolutely valuable. I asked Marcato to participate in an individual

interview. I specifically told him that that I wanted to know not only about the school, but also his experience with *the Basic Education Core Curriculum 2008* since he was a part of the curriculum development process. Marcato agreed and suggested the best day to interview would be the same day as the data collection.

I visited school D again one month after the first meeting. The day began with quantitative data collection with student participants selected by Marcato. Once the data collection was over, I sat down on at the table in the same room with Marcato. We began the conversation by talking about the achievement tests that the students just finished before transferring into the actual interview. I learned that Marcato had worked at school D for twenty-seven years. He graduated with a master's degree in music education from Chulalongkorn University. At school D, Marcato was responsible for both curricular and extracurricular music. He was a middle school music teacher as well as the whole-school band director. Marcato described the characteristics of students at school D as "academically determined," "come from good families," and "well-behaved." He proudly stated that school D was the regional leader for academics and sports. I asked him to speak more specifically about the school music program. Marcato replied, "It's fine. We won a couple of national and international competitions. But music is still considered a small part of the overall school success." "What does the music department here look like?" I prompted him to speak about the music program. He explained that the curriculum time was very limited. Students only meet twice a week for fifty minutes. "That is not so bad, is it?" I asked. "It is bad when you have fifty students in class," he replied. "It is almost impossible to help students with their individual needs, especially for a subject like music when students' backgrounds and needs are so diverse." I asked

Marcato to share some of his teaching strategies. He explained to me that he emphasized heavily on music theory in the first semester and then applied these music theory concepts to practical lessons in the second semester. This was how he ensured that his students understood and knew how to apply abstract concepts into the real-life situation. My quantitative results revealed that mean scores of participants from school D ranked number one in high school and second in middle school. Perhaps this was the reason. This teacher was probably the influential factor behind his students' music achievement.

One of the reasons I looked forward to my interview with Marcato was for in-depth information regarding *the Basic Education Core Curriculum 2008*. Besides the process and policy involved in developing this curriculum, Marcato also expressed his thoughts and insights regarding this issue. According to Marcato:

> The music component of *the Basic Education Core Curriculum 2008* remains pretty much the same until today. In 2017, the Thai Ministry of Education announced some minor changes in the structure. But the learning content, standards, and benchmarks did not change. If you ask me, I think the curriculum is very outdated. The content is not appropriate or respond to the diverse needs of Thai students. I believe each school should have their own curriculum that may be modified from this core curriculum, based on the backgrounds and the needs of their students. Imagine students who come from wealthy families. Their parents can afford to pay for private music lessons since they were young. These kids are advanced. They already know everything the curriculum has to offer. School music is not challenging for them anymore. On the other side, rural school music

teachers may have problems following the same curriculum because the content is too advanced for their students.

Next, I asked Marcato about music resources and an annual budget. He explained that musical instruments at the school were old and inadequate. Some of them were as old as the school itself. As for the budget, the process was similar to other schools; the music department would submit the proposal for the upcoming year with the estimated expenses needed for resources, competitions, and other activities. The annual music budget of school D was approximately 300,000 baht or $10,000 US dollars, which is considered decent for a public school. Similar to other public schools, the main budget came directly from the government, which was calculated by the total number of students. "What if that is not enough? What do you do if you have unexpected expenses?" I asked. We can ask for extra money from the parent and alumni association. But only a small amount is allowed," said Marcato.

Toward the end of our interview, I asked Marcato how satisfied he is with his music program. According to Marcato:

> You know, I consider this music program quite successful. We won both national and international performance competitions. These used to be my goals when I was younger. I wanted to win. I wanted those trophies to prove my success. But nowadays things have changed. I've been here for so long. Long enough that I don't see those awards and trophies as important anymore. What's important for me is that I want my students to feel the joy of music. I want music to be this great experience that students earn along their journey in school. I want

them to step outside of their science or math class and enjoy the aesthetic of music. That's what I am doing nowadays.

I smiled. Marcato's statement touched my heart. I looked at his face again. This time I did not see gray hair and wrinkles. Instead, I saw wisdom.

N.T.

As soon as I completed the summary statistics for the achievement test, I knew I wanted to interview N.T. Of all 137 high school participants, she received the highest score. I went through the pile of the demographic and background survey questionnaires looking for her contact information and to make sure she checked the "Yes, I am interested in participating" box. I already knew that she was willing to participate in an interview. N.T. and I had a brief conversation after the quantitative data collection. She was interested in the musical excerpt I chose for the music analysis part of the achievement test. I also learned from Marcato that N.T. was one of the strongest musicians in his band.

On the day of the interview, N.T. escorted me to a small rehearsal room. The room was gloomy and old. I looked around and saw piles of music stands, brass instruments, woodwind instruments, and many chairs. Several middle school students were hanging out in the room when we entered. "Just be quiet. OK?" N.T. told those middle school girls during the interview using her commanding voice. I smiled while trying not to laugh. She was the "girl boss" of the band. I could tell right away.

N.T. was a tall and skinny girl with fair skin and recognizable Thai-Chinese features. She wore her school uniform – a white doll-sleeve shirt, a belt, and a pleated navy skirt. She had long black hair pulled back in a ponytail. Her glasses and her quiet

but confident personality made her look like a young scholar to me. We sat down facing each other. Since we could not find any table, I placed my laptop on one of the music stands and pressed record.

N.T. was a junior in high school, played clarinet in the school band, and was the section leader. Shortly after, I learned that clarinet was not the only instrument she played. N.T. also took violin and piano lessons outside of school. She was quite advanced in both instruments. N.T told me she just completed her grade six violin exam from the *Associated Board of the Royal Schools of Music* or ABRSM the day before the interview. N.T. was a well-trained classical musician whose experience was beyond the scope of school music. After talking about her music experience, I changed the subject and asked N.T. about her friends. "They're silly. Some of them are nerds. In fact, we have so many nerds around the school" N.T laughed while saying. "What about your friends in the band," I asked. "Oh, same. They're nerds. But they're good. Very dedicated and responsible." N.T. answered.

I handed N.T. a blank copy of the music achievement test she completed during the quantitative data collection and asked for her feedback. "For me, I think it's easy. The easiest part must be music notation and rhythm, because I've been reading music for so long. I'm used to it. The more challenging part for me is the music analysis and Thai Classical music." N.T. said confidently. "Where did you learn all this?" I asked. She explained to me that, besides school music, she also learned music theory from her private lessons outside of school. "I also tutor younger kids in the band, too. I teach them basic music theory. This is what we've been doing in our band, Roon pee son roon nong [older students mentoring younger students]," N.T. added. "Why did you have to teach" I

asked. "Because the curriculum time is so limited. Band kids, especially the new ones, need extra lessons on music theory. Our music teachers are so busy with other duties. We want to help them as much as we can." N.T. answered. The girl was not only smart, she was also responsible and concerned about her band community. She worked as a teacher assistant. Although it was not formal, N.T. was able to perform all the TA duties: tutoring, section leading, arranging the schedule, and coordinating with her band director.

"My band director? He's very strict and a little bit of a perfectionist," N.T. giggled while describing her music teacher. "We have three music teachers here. And they all have different personalities. Some of them are more relaxed. But our band director was definitely the strict one. He's very specific. He really makes sure students get it before moving on," N.T referred to Marcato. This was how I perceived Marcato as well. He was a devoted teacher who highly valued knowledge. I took note as I began to see a stronger connection between "teachers" and "student achievement."

Next, I asked N.T. to speak about her future plans. N.T had several plans for herself. Because she came from a half Chinese background, speaking Mandarin was important to her and her family. N.T. was interested in studying international business in the university, specializing in China. N.T. explained that studying business would allow her to branch out in many directions without being too specific. She also expressed her intention to continue working on music since it was another potential career for her. N.T. explained that she saw herself teaching private music lessons, especially probably music theory, since it was already her strength. "I am proud when I can teach the younger students to understand difficult concepts of music theory. It is so rewarding," N.T. answered with a smile.

N.T. was a mature student for this age. She had a clear vision and direction. N.T. was a pragmatist as well. She was passionate in music but also aware of the career opportunities in the field. Toward the end of our conversation, I asked N.T. about factors that, she believed, could impact student music achievement. "You have to get used to it. You have to do it a lot," N.T. spoke firmly about music theory. "For performing, you just have to practice as often as you can. Spend a lot of time playing your instrument. You also need to listen to music. It will give you some ideas of how you should play," N.T further explained. This girl had a mindset of a high achiever. No matter what she chose to do, I knew she would become successful in the future.

<center>**School E**</center>

School E was located in Bangkhen district. The district was mainly a residential area in outer Bangkok with some local businesses spread out across the district. Main travel in the district was through roads, expressways, and busses. A new line of the *Bangkok Mass Transit System* (BTS sky train) was in progress. This suggested that the district was still growing. Landmarks of the district included three private universities, the infantry regiment, and a large boxing stadium.

School E had approximately 500 students attending the school in that academic year. School E was an American-system international school. The school implemented *the Common Core Curriculum* for core subjects and *the California Curriculum* for the non-core subjects. Among other international schools in Bangkok, school E was one of the more affordable schools. However, the tuition fee was still significantly higher compared to public schools and some private schools in Thailand.

School E was not a strange place to me. Prior to my doctoral degree, I worked as a secondary music teacher at this school for six years. The students and staff greeted me with excitement as I approached the main gate. As happy as I was to revisit, I was extra cautious and consistently reminded myself to leave my personal feelings and biases at the front gate and continue my role as a researcher.

The school atmosphere was as I remembered – bright, breezy, and welcoming. Compared to other schools I visited, school E was considered not large in terms of its area. The main building was in a modern, round shape with tall glass windows. This round building was the location of the school office, library, students' lounge, and students' learning center. The round building was connected to the L shaped building. This L shape-building was the location of classrooms, cafeteria, science labs, computer labs, music rooms, and art rooms. The outdoor soccer field was at the center of the campus, surrounded by the L shaped building, the gymnasium, and the kindergarten building. All buildings were in good condition. The paint was still fresh. The outdoor area was well-maintained. I walked through the L shaped building and went upstairs to the fourth floor.

Dan

Dan was a secondary music teacher at school E. He was responsible mainly for curricular music. Because of the small student population, school E did not have an orchestra or a proper marching band. The music program at school E consisted of performing class, theory class, and composition class. The school E music program was famous for traditional and contemporary music integration. Although the theory was taught in a traditional Western Classical manner, performances emphasized heavily

contemporary and commercial music. Dan, himself, was a talented jazz guitarist. He brought to the school music program a jazz and blues flavor, inspiring young guitarists around the school to be more active and engaged in school music.

On the day of the interview, I knocked on the door and popped in since Dan already knew that I was coming. The music room was spacious, sound-proof, and had a nice carpeted floor. At the corner of the room, there were a drum set, a couple of electric guitars and basses. On the other side of the room, I saw one upright piano and a Roland keyboard. Chairs and music stands were spread out across the room.

Dan was in his mid-thirties. On that day, he wore a short sleeve polo shirt and light-colored pants. Dan had an average-Asian man build, black hair, and yellow skin tone. He had an enthusiastic and fun personality. I sat down with him and started asking about his day and the school. After we finished our catching up conversation, I asked Dan if he was ready to be interviewed. Dan nodded and said that he was ready. I pulled my laptop out of my work bag, placed it on his desk, and pressed the record button.

Dan had taught at school E for two and a half years. He graduated with a master's degree in guitar performance from a university in New York. Unlike most teachers I interviewed, Dan did not have a traditional K-12 music education background. Prior to his position at school E, Dan worked as a studio teacher and a part-time lecturer at a university. He was also an experienced musician who performed in various events and venues.

"The kids here are great. They're good kids, you know. Very well behaved. Bright and confident. Enthusiastic to learn. Very minimal bullying" I listened to Dan describing his students. He also mentioned that, because the school was small, students

knew each other very well and were close with each other, within and across their grade levels. School E definitely was a close-knit community and had a friendly atmosphere. Like Dan said, the student population was small. The school also had a policy to limit the maximum number of students to only twenty-five students per class for effective learning. As a result, the school community was close knit. From the school director, to the department heads, to teachers, to students, to staff – everybody called each other by their nicknames, which was similar to first names in Western culture.

I asked Dan about his music program. "The most successful musical activity here, I think, is the practical exam," Dan answered. He further explained that the music assessment of school E consisted of two components: theory and practical. The theory exam was a traditional written exam following selected standards of *the California Curriculum*. The music practical exam was organized in the form of an end-of-quarter performance at the school auditorium and was open to other students, parents, and staff to watch. Students who enrolled in music courses were required to put together performances that included live music, singing, and dancing – all in one complete show. "It was successful because it didn't feel like a traditional exam. Students look forward to it. Parents, teachers, and staff enjoy it. Music practical exam has become a culture of the school," Dan proudly explained.

I asked Dan about budget and resources. He explained that he did have to submit a plan for the annual budget. When he needed something, he could put in a request directly to the department head and school director and wait for their approval. He stated that the school so far had been supportive. The system was clearly different from the public and private school where each department needed to submit the plan for the

upcoming academic year. When I asked specifically about music resources, Dan said that resources were OK, but more would be better.

Toward the end of our conversation, Dan shared with me his experience involving the significance of music in students' lives. According to Dan:

> One time, during the practical exam, a student went on a stage and forgot to turn her microphone on. The musicians started playing. She started singing. As soon as she realized that something was wrong with the microphone, she lost her control. She was about to cry. And immediately, another singer from the backstage started singing that girl's part. So, she was able to lip sync and carry on with the performance. I thought this was a great life experience for all of them. They could not learn this kind of experience from other classes. They learned the problem-solving skill, teamwork, and – most importantly – they learned to deal with their failure and disappointment. These are situations that can really happen in their lives, you know. And I'm glad they learn that through music. Music is not only important to child development; it also enhances social skills. It promotes the quality time among friends or even among families.

Dan added this thought before our conversation ended: to him, music was not only important to children as a school subject, it also enhanced social skills and promoted quality time among friends and families.

Bebop

The number of potential interview participants from school E who indicated their willingness to join an individual interview was significantly higher than those from other schools. As happy as I was to see that many students willing to help their former teacher,

I knew I had to be even more careful and choose participants who were free from my biases. Bebop was my first choice for two reasons. First, he was an active and experienced musician who scored in the high achieving category. Second, he never took classes with me before.

Bebop and I walked into a classroom across from the music room. This room was usually reserved for exams. Thus, the arrangement of tables and chairs was in separate rows. We sat down at one of the tables facing each other. Bebop was wearing a school uniform: white long-sleeve shirt rolled up, a maroon tie – the color of the school, and dark gray pants. He had the "cool kid" personality – funny, confident, but relaxing. Bebop was half Thai and half Japanese. He had a natural tan skin, black hair, and an average Asian man build. Once situated, I explained to him the interview process before pressing the record button.

Bebop was a tenth grader. He had moved to school E a few years before, unlike most of his classmates who had attended the school since kindergarten. Bebop was one of the new kids. But he did not have any problem fitting into the school culture or making friends. Bebop had an outgoing personality and seemed to be a popular person among his peers. He was also a musician inside and outside of school. Bebop's main instrument was the piano. Besides the piano, he played the guitar and the bass while working on the violin, harmonica, trumpet, and singing at the same time. Bebop had an outstanding musical background. Some skills he learned from school and some he learned from private lessons outside of school. Bebop was also a self-taught musician. He told me that a lot of skills he learned from musical channels on YouTube and practiced by himself without a supervisor.

"They are goofy, goofy, goofy. Dumb sometimes. But, actually, musical. I think the strength of the school is that everyone is friendly," the boy laughed as he described his friends. The way he described his friends as "musical" was interesting to me. "From my experience, I started focusing on music because most of my peers have started to steer away from sports and focus more on playing music," Bebop explained further. I asked him what the strength of the school was, in his opinion. He stated that the music department was the most famous because of the successful interschool music competition hosted by the school every year. However, Bebop said that, lately, school sports had improved, and music had declined. "Less and less people are involved in playing music," he added.

I handed Bebop a blank copy of the music achievement test and asked for his feedback. "I'm more familiar with, like, the basics. How music works. Instead of the section [forms], the AB" Bebop squinted while explaining. "The music analysis?" I asked him for the clarification. "Yeah. I don't do much of this stuff" the boy added. I asked him further for feedback on the general knowledge of music category. Bebop clarified that he recognized all the Western instruments but did not have any knowledge about the Thai Classical music or Thai instruments at all.

Next, I asked Bebop to describe the school music program. For the performing class, students were divided into three levels according to their musical skills. The beginner group usually needed extra help and attention from the teacher. The intermediate group was better in terms of skills and could sometimes practice on their own. The advanced group was made up of skillful musicians who could play by themselves and did not need much help from the teacher. I then asked him to describe

music theory class. He explained that students usually gather at the beginning of the class to learn the basics. Then the teacher used *music theory.net* as a teaching tool providing further resources such as exercises or readings. Bebop explained that lately his music teacher emphasized putting music theory concepts to a practical use by analyzing music. The fact that students had a chance to put music theory concepts into practical use was great. However, the frequent use of an online resource without modifications made me question the teacher's pedagogical choice.

Bebop described his music teacher as "free flowing," "focusing on the goodness of music," and "can play everything [musical instruments]." He also credited his school music teacher for inspiring him to play music especially the guitar. As already mentioned, Bebop's musical experience was not limited to school only. He had the privilege to take various kinds of private lessons. Bebop's parents were supportive of his choices. "They must be supportive because I've had, like, quite a lot of stuff…instruments," Bebop explained.

My last question to Bebop was his opinion on factors that, he believed, impact his music achievement. "I like to learn. I always watch YouTube videos constantly, constantly. And I think I've picked up a great ton of knowledge," Bebop answered. I asked him to explain further about what he learned. "I try to put math into music a bit, music theory especially. It's basically math and I kinda like math," Bebop said. He also added that he liked to listen to unusual music that featured polytonality, polyrhythm, complex chords, and atonal. Bebop had a sophisticated taste in music. I viewed him as a knowledge seeker and a life-long learner. He might be privileged. However, I believed that his distinctive character also contributed greatly to his achievement in music..

Not

Not was another interview participant from school E. I chose him for four reasons. One, he represented the low-achieving category. Two, his essay revealed unique and interesting thoughts on music in the social context. Three, interviewing both low-achieving and high-achieving students from the same school could reveal different perspectives of the same unit. Four, the triangulation among data sources should strengthen the quality of my analysis.

Not was a tenth grader. He had been in school E since elementary. Not was wearing a school uniform on the day of the interview – white long sleeve shirt, a maroon tie, and dark gray pants. Not had a slightly thicker build, tan skin, and short black hair. From my experience working with him in the past, Not was a genuine boy who had a good heart and always wanted to help other people. Unlike Bebop, Not was not recognized as a school musician. Even though he started to get involved in music more in the past few years, he seemed to limit his musical activities to outside of school.

Not and I sat down at a table in the same room where I had interviewed Bebop five days before. I started with a catching up conversation since he was my former student. Not had grown from a funny little boy into a calming and thoughtful adolescent. I began the interview by asking about the school. Interestingly, Not stated that the school did not have a strong direction or emphasis. He thought that the school was average in all areas. "Neither good nor bad," he said. "Sports are probably a little bit better. But the music program still needs further development," Not added. "What about your friends?" I asked. "Everybody knows everybody. We're close. Some of my friends really study hard.

Some of them are lazy. And some are just chilled. The school atmosphere is friendly and relaxing." Not described his school.

I handed Not a blank copy of the music achievement test and asked for his feedback. He flipped through and squinted. "Can I tell the level of difficulty by rating it from one to five?" Not asked. "Of course," I said. Not continued, "For me, I think it's about four. Quite difficult." "You didn't give it five out of five. This means that you were able to do some parts," I probed. "Yes. Note reading, scales, transposing, and some rhythm stuff," he said to me. "What about those musical terms?" I pointed to the test paper. "Zero knowledge" Not laughed. As for general knowledge of music, Not was familiar with Western instruments and knew a little bit about Thai instruments. He also stated that this was the knowledge he learned from his previous school.

Next, I asked Not to describe his music class. For the performing class, Not explained that students were divided into smaller groups and practiced separately. The teacher would check in from time to time and confirm if the group was ready to perform. Not also said students had a freedom to choose their own repertoire. "What about music theory? What do you do in that class?" I asked. "We learned key signatures and intervals now. The teacher uses *music theory.net* to teach. He doesn't talk a lot. But he emphasized music theory exercises" Not explained. He also added, "It's like we're learning on our own. Not only the teacher teaches, but we also teach each other." "What can be done to make it better then?" I probed Not to speak more as I began to hear his thoughts on school music. "More students would have been better" Not thought before answering "Why?" I continued to probe. According to Not:

I feel like I'm the only person who likes different music than others. It's a little bit frustrating that I always have to play music chosen by the majority of the class and I'm not attracted to that music. I feel isolated.

Not revealed his feelings. I immediately took note as I felt his dissatisfaction with school music and his teacher's pedagogical choices. Thinking back to what his friend said a couple days ago, Bebop seemed happy and satisfied with school music program. Not thought differently from his friend. He seemed frustrated because he did not fit in with the mainstream. "Feel isolated" and "on our own" were two phrases that struck me the most.

When I asked him about his out-of-school musical activities, Not lit up. He was eager to speak about his out of school musical experience: "I take private guitar lessons. The electric guitar. I am also trying to put together my own band with my buddies from other schools." His musical taste did not match with what school music had to offer. Thus, Not sought musical inspiration and satisfaction from somewhere else. "I like to listen to the new metal stuff and some Thai indie bands" Not was excited as he explained. "What do you like about them?" I asked. "The sound" Not answered firmly. "I like new sounds. I like when artists experiment with their own unique sounds." He added.

Not was unlike other students I interviewed. His taste and interest in music was distinctive. Judging from our conversation, Not revealed extensive knowledge gained by his out-of-school experience. Toward the end of the interview, I asked Not what factors, he believed, affected one's music achievement. His immediate thought went to music performing. "I think you have to practice a lot and gain experience from fellow musicians. You should also offer your audience something new. Be different but not

completely odd." My conversation with Not revealed new perspectives of school music, ones that I did not expect.

School F

School F was located in the Prawet district in the Southeast of Bangkok. Prawet was a residential district situated on the outskirts of the city. The district was considered the "green space" of Bangkok because it was the location of many parks and recreation areas. The main routes to Prawet district were the Motorway, express way, Kanchanaphisek Road, Srinakarin Road, and Phattanakarn Road. The landmarks of the district included a large park, a botanical garden, a water sports center, and several local malls.

School F was a small international school with approximately 370 students attending the school that academic year. This school followed the British co-educational system, and the school implemented the English National Curriculum. The tuition fee of school F, while higher than Thai public and some private schools, was considered more affordable than other international schools in Thailand.

School F had a unique architecture and exterior design that was not typical for schools in Thailand. The school architecture was a mix of a colonial style and European-castle style. As I approached the school, I noticed the red and white castle tower sitting at the center of the building with white stairs and arched door. The building looked well-maintained and was in a moderate condition. I entered the main office and informed the staff of the purpose for my visit. The receptionist asked me to wait while making a phone call.

Beard Man

      The receptionist escorted me to the inner compound of the school. We walked

past the kindergarten area and into the primary and secondary area. She knocked at the

principal's office and informed him about my visit. The school principal and Beard Man

were waiting for me in the office. School F had a different policy for researchers.

Researchers were required to meet with the principal in order to receive approval to

conduct research. Beard Man was British gentleman in his mid-thirties. He served as

secondary music teacher. On the day of the meeting, he wore a long sleeve shirt, dark

colored slacks, and dark frame glasses. Beard Man was tall, had an average build, dark

brown hair, and – surely – a beard. He was an enthusiastic, fun, and very articulate

person. Both Beard Man and the principal asked me detailed questions about my

background, the purpose of my study, rationale behind my study, and the data collection

procedure. Once approved, the principal handed over the responsibility to Beard Man

who scheduled for me to come back for the quantitative data collection and a teacher

interview in the following month.

      The interview took place in the secondary music classroom after the data

collection was over. Located on the third floor, the room was used for both lectures and

rehearsals. The classroom was an adequate size considering the small student population

of the school. There were keyboards, percussion instruments, and a collection of acoustic

guitars stored against the classroom wall. I saw a drum set in one corner and an upright

piano in another. The table arrangement was different from other schools I visited. There

were round tables and chairs in the middle of the classroom suggesting that students

would sit in groups rather than individually. Beard Man and I sat down at one of the round tables and started our conversation.

The interview began with Beard Man introducing himself and his background. He had taught at school F for six years. In his early years, he was responsible for teaching the entire school – from kindergarten to year thirteen. As the school grew, another music teacher was hired to teach kindergarten and elementary. Beard Man was now responsible for teaching from year six to thirteen. The music program at school F was primarily curricular music with some after school clubs such as dance and band. The school did not have a traditional orchestra or marching band due to the small student population.

The most outstanding aspect of school F was the relationship among teachers and students. Whether it was student-teacher relationship, student-student relationship, or teacher-teacher relationship, all were mentioned positively by Beard Man. Because school F was not a big school, teachers and students had an opportunity to learn personalities, grow together, and bond with each other. The school community was positive and had friendly and relaxing atmosphere. Beard Man also mentioned that his students were very musical and had a great attitude toward music. Even though the school progress tended to be more on the core subjects, music would be the first choice of non-core subjects in which students chose to enroll.

When I asked about areas that the school put an emphasis on, Beard Man stated that "we're not necessarily one particular thing or another. We're sort of coming first and foremost from giving them the experience and learning things rather than that." Beard Man answered. School F vision and direction was, perhaps, the most holistic of the

school contexts thus far. While academics remained the focus, they ensured that their students were enhanced and developed in other areas as well.

I asked Beard Man further about the music budget, resources, and facilities. "Facilities here I think are quite good. This classroom is great. It's nice and big. I have enough space for the tables as well as just to move them around the side," Beard Man answered. He further explained that the school also provided a decent size storeroom, ten practice rooms, and a large band room which were very convenient for teaching and practicing. I asked him further about musical instruments. Beard Man stated that instruments were fine. He tried to build up a collection. "I've really tried to build up the instruments. I was given a very generous sort of head start on that in my first year. And so, I was able to purchase some keyboards, more guitars, and electric guitars just to really give the students a bit more of an opportunity," Beard Man went further and explained his rationale for building up the collection of instruments. According to Beard Man:

> I don't want the kids to have to feel like they need to purchase their own guitars. I want them to, if they do, for sure. And I really like it when they come with their instruments. But it's certainly not, you know, making students do that is sort of like telling them that they need private music lessons. If the only way they can access music is if they pay lots of money, well then that's not really very fair. They don't ask about it in math and science or history. And that's what I want - music to be treated the same as those subjects.

Students who attend international schools in Thailand generally come from financially healthy families. For Beard man to state that music should be accessible to all students without paying extra money suggested that he was aware of educational equity

and equality. Despite family status, Beard Man believed that the school should provide students the same opportunity and an equal learning experience. Beard Man stated that private music lessons definitely helped enhance students' musical skills. However, he believed that it was fair to students to ask students to do so. "Just like math tutors, I'm sure. Excellent help to the math teacher, but it certainly shouldn't be a requirement. The same with instruments too" Beard man clarified. "It's only if you know that they want to sort of develop it further, then I would, perhaps, encourage it. But actually, I don't think I've ever told anyone to get one, even if they've tended to do so themselves" Beard Man further explained.

Next, I asked Beard Man about *the English National Curriculum* and how he chose to implement it. "It's quite vague and very broad. I, actually, what I tend to do really is look at *the General Certificate of Secondary Education* (GCSE) exam and the requirements of that. Then make sure that there are enough essential skills that will help with the GCSE" Beard Man answered. He also added that, "It's good that they could follow for the test. But because most people won't be continuing it, I certainly don't want to either ruin it or make it boring or turn them off music" Beard Man expressed his opinion regarding the relevance of *the English National Curriculum*. Beard Man stated further that the most important thing for him was to make sure the curriculum was accessible while giving students the skills they needed. According to Beard man, *the English National Curriculum* only served as broad guidelines and frameworks for him.

My last question for Beard Man was the significance of music in students. Beard Man firmly and passionately stated:

It's those essential skills that they are going to need for the rest of their lives. Not only relationships, but also in their job as well, their self-esteem, the confidence, the playing together, the ensemble, the knowing when you're going to be a leader, knowing when to follow. They need to know when to stand up, when to own up to 'this is my piece and I'm going to play.' All those things are so inherent and built in music.

Beard Man was absolutely correct. Those skills "built in music" were essential life skills that students could learn through a school music program. Beard Man gave an insightful perspective. His passion in music and teaching was explicit. Certainly, all of these qualities reflected in his curricular and pedagogical decisions.

Nerko

A month later, I visited school F for the third time to interview a student. It was the last day of the quarter, and there were no classes. The students and teachers were preparing for the Christmas concert in the morning and classroom parties in the afternoon. I arrived ten minutes before 8 a.m. It was the only free time students had before Christmas activities happened. Nerko was recommended by her music teacher, Beard Man. Her music achievement score was the second highest, of all 137 high school participants. Nerko was in year 12 or an equivalent of grade 11 in the American system. She was a Korean girl with short black hair, fair skin, average height and slightly skinny figure. Nerko did not wear a school uniform. She was wearing a short sleeve t shirt and jeans. Nerko was bright girl. She was quiet but confident and very mature for her age.

Nerko came from a musical family. She had two aunts who played the cello and studied voice performance in the university. Her mother, although she does not play

instruments, listens to and appreciates music. Growing up in a musical family, Nerko was encouraged to take piano lessons from a young age. She switched to the violin and the guitar as she got older. The violin was her main instrument. Nerko took private lessons and joined the *Bangkok International Community Orchestra* as a second violin. Guitar was, on the other hand, an instrument that she studied by herself during her free time.

I handed Nerko a blank copy of the music achievement test that she took during the quantitative data collection and asked for her feedback. She looked at the test and told me that the multiple-choice questions were quite straightforward to her. The music analysis was more challenging but still familiar, as it was a topic she had studied from school. Similar to most students, the most unfamiliar topic was the Thai Classical music. "I didn't learn that in school," Nerko said. "I found that difficult. I had to kind of guess," Nerko laughed while explaining.

"What are you guys learning right now in music class," I asked Nerko. "We're currently doing the A level course now. So, as part of the course we do music and performance analysis, pieces from, like, Baroque period. And then we do a lot of analysis," Nerko explained to me. The music program at school F was more intense than the other schools I visited. Students had an opportunity to learn complex and more in-depth music concepts. I learned from Nerko that, while the music theory was taught in a Western Classical manner, the performance was a mix between Western Classical and contemporary and commercial music. The music teacher also made sure to include students' input when it came to choosing repertoire.

Tell me about your music teacher" I asked Nerko. "He is really nice. And I really mean it," Nerko emphasized her answer. She further explained that her teacher cared

about not only schooling, but also students' wellbeing. Nerko mentioned that her music teacher also had a positive approach to things. He was helpful and got engaged in a friendly atmosphere with his students. "How experienced do you think he is?" I probed. "Very," she said. "Because when students have problems, he knows how to deal with them. In terms of his music knowledge, I can always go to him for help in terms of composition or performance or theory." I could tell that Nerko trusted in her teacher not only as a knowledge provider, but also as her guide. As Beard Man stated, the relationships among students and teachers were positive and rather close. This could, perhaps, be one of the factors that positively impact student achievement.

Similar to other student participants, my last question focused on students' perception of influential factors on music achievement. Nerko responded, "I think it's really important that you have musicians and artists that you can look up to around you who can be examples for you to see." I listened to Nerko and thought how fortunate she was to grow up in a family that valued music. "You need the time to do it. And also, you need a lot of dedication," Nerko added. "What about music knowledge? What factors affect your achievement? I probed her to speak further about her achievement according to the test results. "The more you know the better. Whether it be performing or composing, you need to know the basics," Nerko answered. She also shared with me before we ended our interview that music was one of areas that she was considering as her career in the future.

Presentation of Categories

This section presents within-case and cross-case analysis through categories synthesized from codes. According to Merriam & Tisdell (2016), data analysis is a

process of making sense of the data. Making sense of the data involves consolidating, reducing, and interpreting what people have said and what the researcher has seen and read (p. 202). The first step of the analysis was coding. Codes are the smallest units of the text that carries meaning. It is the beginning of organizing or establishing a framework to qualitative data (Gibbs, 2007). For the present study, both student and teacher data matched each other and revealed some factors relative to student music achievement. I applied codes such as "student's background," "self-taught," "student's interests," "student's attitude," "student's perception, and "student's value" to aspects initiated in students themselves that connected with their levels of music achievement. Codes such as "teacher's background," "teacher's attitude," "teacher's value," "school emphasis," "school culture," "budget," "music facilities/resources," "school support," and "musical activities" revealed aspects involved with schools that could increase or limit students' opportunities and potentially influence their music achievement. Finally, I applied codes such as "family support," "family value," and "family influence" to pieces of data that involved with families' impact on student music achievement.

The next process after coding was categorizing. Richards & Morse (2007) explained that categorizing is how we get up from the variety of data to the shapes of the data. Furthermore, concepts or themes are how we get up to more general, higher-level, and more abstract constructs. Categorization is a way in which qualitative researchers attempt to organize data and group patterns observed from data. For the current study, presentation of categories follows Saldana's (2016) streamlined codes-to-theory model for qualitative inquiry. Three categories relating to student music achievement were synthesized from within-case and cross-case analysis: self, school, and family

Category A – Self

The first category was self. This category involved the factors controlled by students themselves that influenced their levels of music achievement. Three subcategories were identified under this main category. Those subcategories included music curiosity, self- initiation, and background and experience. Student participants for the qualitative phase were selected according to their scores on the music achievement test completed during the quantitative data collection and their willingness to be interviewed as indicated in the demographic and background survey questionnaire. Three students represented in a high achieving category were N.T, Bebop, and Nerko. Three students represented in a low achieving category were Boss, Momotaro, and Not. It appeared that, despite their music achievement scores, each individual was committed to a certain level of music curiosity and self- initiation. All students reported listening to various genres of music for recreation. Aside from recreation, Boss, Not, and Nerko were inspired to play musical instruments by their favorite artists. Bebop, Momotaro, and N.T. listened to music because they desired to learn more. All students played at least one musical instrument and participated in some type of ensemble. Music was an activity that these students chose to participate in during their own free time regardless of support from schools or families.

However, students' music background and experience, their level of music curiosity, and their level of self- initiation differed from one to another. Boss was a self- taught guitarist and singer who occasionally performed for fun. Momotaro focused mainly on Thai Classical music. He listened to Thai Classical music not only for recreation, but also to analyze in order to prepare for his competitions. Momotaro had a

minimal interest in other musical genres. He did not make an effort or show any curiosity to learn other types of music beyond his beloved Thai Classical music. N.T. listened to various musical genres from Western Classical, to Thai folk, to Thai popular, to American popular, to K-pop. N.T. listened to those kinds of music for both recreation and as a preparation before music competitions. She was a Classical trained musician who was skilled enough to recognize music concepts featured in any pieces that she listened to despite the genres. Her music knowledge and skills also were accelerated due to the fact that she served as a music theory tutor and a section leader in the school band. Bebop had a great curiosity in music. He loved to explore different styles and learned new music concepts. Bebop was a trained pianist whose interests were far beyond the piano. Besides the piano, he learned to play other instruments, such as guitar, bass, violin, harmonica, and trumpet. Bebop was also particularly interested in music theory concepts. He continued his learning out of school through online learning platforms. Unlike his peers, Not had a unique taste in music. His musical involvement took place mostly outside of school, because his interest in music focused a specific genre. Thus, his choices of musical participation reflected his preferences. Nerko was a violinist and a member of the community orchestra. Her music knowledge and skills were advanced due to the fact that she was a trained musician since young age. However, her interest in music went beyond the Western Classical music. Besides the violin, she was also a self-taught guitarist. Nerko also listened to various types of music depending on her time and situation.

Category B – School

Many influential factors on student music achievement related to the schools that participants attended. Four subcategories were identified under this main category:

teachers, music programs, school features, and peers. For this present study, teachers served as key informants and gatekeepers. They provided information regarding school direction, characteristics, curricula, and policy through the individual interviews. These individual interviews also revealed teachers' values, attitudes, and beliefs that led to the rationale behind their curricular and pedagogical choices. Teachers had diverse approaches and took music in different directions depending on what they valued or prioritized. It was also intriguing to see different approaches from schools that actually implemented the same curriculum, *the Basic Education Core Curriculum 2008*. As presented in Chapter Two, the major downfall of this curriculum was the fact that standards and benchmarks were broad and vague. The curriculum left a lot of room for teachers to interpret. As a result, teaching outcomes depended on teachers' experience and ability to adapt to their unique teaching circumstances.

The next subcategory – music programs – covered areas such as resources, facilities, budget, musical activities, and school support. A music program was a unit that, if well supported and well-funded, could provide countless opportunities for students to accelerated and grow rapidly. Poorly constructed music program could influence students in the opposite direction. Annual music budget was the key factor that determined music facilities, music resources, types of ensembles, types and frequency of musical activities, as well as suggesting the level of support and investment the schools put on their music programs. According to my data, I witnessed great differences in those areas among the public, private, and international schools.

The following subcategory was school features. This subcategory covered areas, such as school size, students' characteristics, school atmosphere, school direction, and

school culture. School features could contribute to students' success in music. For instance, numbers of students in class could either limit or encourage students' access to learning. As reported by Marcato, the music teacher of school D, one of his challenges was teaching in class with an average of fifty students. He indicated a difficulty in helping students with their individual needs, especially for a subject like music when students' backgrounds and needs are diverse. Aside from school size, students' characteristics, school atmosphere, and school culture could lead toward value and positivity of certain subject areas or activities. School F was an example of how positive atmosphere could encourage and motivate students to learn. The most outstanding aspect of school F was the relationship among teachers and students. Because of its small size, teachers and students of school F had a chance to learn personalities, grow together, and bond with each other. The school community was positive and had a friendly atmosphere. Students had positive attitudes toward learning including music. As explained by Nerko when prompted to speak about her music teacher, "He's really nice because he actually cares about not only your studies, but also your wellbeing. He has a positive approach to things. He's really helpful and really gets engaged in a friendly atmosphere with the classmates."

Another factor under this subcategory was school direction. School direction emphasized specific areas that could also impact the quality of music programs which, again, could limit or increase students' opportunity to grow musically. School A was a case of a music program that had insufficient resources due to very limited annual budget. Consequently, musical opportunities were limited to their students. School C, on the other side, invested a large amount of money on music but only limited their support

to their afterschool orchestra. The orchestra was the highlight of the school which contributed to the school's prestige, while curricular music was ignored. Despite their extravagant budget, non-orchestra members were left with a small opportunity to grow musically. As stated by Momotaro, only a small scope of music was taught during the curriculum time.

Peers were another factor that could, perhaps, enhance or diminish students' success in music. School E presented a great example. Student participants from school E indicated the influence of peers on their musical experience. Bebop described his friends as "musical." He explained that he started focusing on music because most of his peers focused more on playing music than other activities. Ironically, Not who came from the same school stated that he felt "isolated" when in music class because his musical preference differed from his peers. He was, however, forced to play music chosen by the majority of the class, which he did not feel comfortable doing so. The feeling of "isolation" led toward his decision to get involved more in music outside of school.

Category C – Family

Through the interviews, I realized that families had a great and direct impact on student music achievement. Three subcategories were identified under this main category. Those subcategories included family support, family values, and family influence. Despite their music achievement scores, all student participants mentioned positive parental support at different levels. N.T., Bebop, Not, and Nerko were fortunate enough to take private music lessons of their choice and owned multiple musical instruments. This suggested that their families were supportive both financially and emotionally. Boss and Momotaro did not have opportunity to take private music lessons.

Their families were, at least, supportive of their decision to participate in music. Besides family support, some students also reported the value of music within families and the influence that those family members had on their musical involvement. Nerko grew up in a family that valued music. She was influenced to play an instrument since a young age by other family members who were professional musicians. N.T. came from a family that perceived music as a potential career. Therefore, she continued to study music and planned to utilize her music skills and knowledge to make money in the future.

Chapter Summary

The qualitative phase was designed to provide in-depth information that could further explain student music achievement and potential influences on music achievement. Student and teacher participants of this phase were selected using purposeful sampling. I organized cases according to the bounded systems. I then described interviews through thick and rich descriptions for the purpose of crystallization. Data sources from student and teacher participants were merged and analyzed using horizontalization and constant comparative analysis. Three categories were synthesized responding to sources of influential factors. The first category was self. There are three subcategories identified under this main category: music curiosity, self- initiation, and background and experience. The second category school. Four subcategories were recognized under this category: teachers, music programs, school features, and peers. The final category was family. This category associated with three subcategories, that is, family support, family value, and family influence.

CHAPTER VII

MIXED METHODS ANALYSIS AND DISCUSSION

This chapter presents the integrated results from the quantitative and qualitative data analysis and discussion. The chapter begins with a review of research methods and initial results. The second section is the presentation of mixed methods analysis. This is followed by discussion, which is arranged according to the emergent themes. In the final section, I present implications for practice as well as recommendations for future research.

Review of Research Methods

The purpose of this study was to assess student music achievement, understand students' music experience relative to the level of music achievement, and explore relationships between student music achievement and possible influential factors, such as teachers, schools, curricula, students' background characteristics, and students' life experience. The study employed the explanatory-sequential methods (Creswell & Creswell 2018). The design involved two phases: the assessment of student music achievement and follow-up interviews to further explain the assessment results. Student music achievement scores were the precedent data, which provided an insight into the current situation of music education in Thailand. Student and teacher interviews were a subsequence that provided a better understanding to the situation and enhanced the quality of numerical data with richer data of the participants' lived experience.

The quantitative data collection consisted of middle school and high school participants' music achievement scores. The *Middle School Music Achievement Test* (MMAT) and *High School Music Achievement Test* (HMAT) were created to examine

and assess the participants' music achievement, since there was no standardized music exam in Thailand besides the university exam. Topics included in the music achievement tests were derived from *the Basic Education Core Curriculum 2008* and based on my own interpretation of the curriculum, which was further validated by a current music educator in Thailand. The tests consisted of three subsets or categories: music theory, general knowledge of music, and music in social context. The total score for each test was 50 points. In addition to the MMAT and HMAT, quantitative participants were asked to complete a demographic and background questionnaire, which provided additional information to support the results and assisted the researcher in writing the discussion section of the study.

To further explain the quantitative results, I conducted individual interviews during the qualitative phase. Qualitative data were obtained from six students and five teachers from five schools recruited during the quantitative phase. I identified student participants of the qualitative phase using the purposeful sampling method. Five teachers (one per school) were selected and interviewed mainly as key informants who provided in-depth information of the participating schools and music programs. Once data were obtained, I conducted within-case and cross-case analysis. Data sources from student and teacher interviews were merged and analyzed using horizontalization and constant comparison. All cases were presented in a rich description for contextual detail and to interpret the social meaning behind the participants' action. Creswell & Clark (2018) explained that "[the first] integration in this explanatory sequential study involved connecting the results from the initial quantitative phase to help plan the follow-up qualitative data collection phase. This plan includes what questions need to be further

probed and what individuals can be sampled to best help explain the quantitative results. Second, once the qualitative phase is complete, the researcher then integrates the two sets of connected results and draws integrated conclusions about how the qualitative results explain the extended specific quantitative results" (p. 80).

Quantitative Results

For the middle school, the one-way between group ANOVA determined the significant differences in the mean total scores among public, private, and international school participants. The result suggested that types of schools had an effect on student music achievement. In order to determine which group differed, I conducted post hoc comparisons. The results from post hoc comparisons suggested that public middle school participants scored the highest and differed statistically from the lowest score group – the international middle schools. The scores of private middle school participants, on the other hand, ranked in the middle of the three and did not differ statistically compared to the highest and lowest of the group – public middle school and international middle school.

For the high school test results, Welch ANOVA determined the significant differences in the mean total scores among public, private, and international school participants. The result suggested that types of schools had an effect on student music achievement but did not specify which group differed. Post hoc comparisons indicated that private high school participants scored the lowest and statistically differed from the other two groups who scored higher and were relatively close to each other.

Test scores were divided into three subsets, which aligned with the 2008 Core Curriculum: music theory, general knowledge of music and music in social context. To

determine whether significant differences existed in the scores of each subset among participants; I conducted a multivariate analysis of variance or MANOVA. There was a significant difference in the music achievement subset scores among middle school groups. This result suggested that types of schools had an effect on student music achievement subset scores. To determine which groups differed, I conducted post hoc comparisons. According to the results of post hoc comparisons, it public middle school participants scored the highest in the music theory category and this differed statistically from the other two groups. For the general knowledge of music, international middle school participants scored the lowest and differed statistically compared to the other groups who scored higher in this category. Finally, the results of the music in social context category revealed that public middle school participants scored the lowest and differed statistically compared to the other groups who scored higher in this category.

As for high school, the MANOVA determined a significant difference in the music achievement subset scores among public, private, and international school participants. The result suggested that types of schools had an effect of student music achievement subset scores. Similar to the middle school, I conducted post hoc comparisons to determine which groups differed. According to results of post hoc comparison, private high school participants scored the lowest in the music theory subset and differed statistically from the other two groups who scored higher. For the general knowledge of music, international high school participants scored the lowest in this subset and differed statistically from public high school participants who scored the highest. However, scores of international high school participants were not different statistically compared to the scores of private high school participants who ranked the

second place in this subset. For the final category – music in social context - international high school participants scored the highest in this subset and differed statistically from the other two groups who scored lower.

Interpretation of Quantitative Results

The present study was conducted through the lens of social justice. As stated in Chapter One, the prevalence of inequity and inequality among upper, middle, and lower classes in Thailand is outstanding, not only in Thai music education, but also in Thai society as a whole. As a result, quality of Thai education varies depending on several elements, such as location, money, and policy.

I chose to focus on student music achievement since it can be an indicator of the quality of a school music program. Quantitative results of the present study confirmed discrepancies in Thai music education. Three types of schools that represent formal education in Thailand were investigated: public, private, and international. These types of school differed in terms of owners, funding, curriculum, management policy, and academic personnel. The quantitative phase of my study was crafted to compare student music achievement in regard to the types of schools that students were educated and fostered.

Of all the three types, public schools were known for the lowest tuition and the most diverse school communities (campus.campus-star.com, 2019). Because of the affordable tuition fees, students' opportunities were limited due to budget allocations and additional support from alumni and parent association. The lack of opportunities in Thai public schools contrasted with situations in private and international schools where students were provided with abundance. Private schools and international schools in

Thailand were owned by non-government organizations, such as commercial associations, churches, or other private sectors. Tuition fees of these schools, especially international schools, were much higher than those of public schools. Based on this fact, private and international school students were more likely to come from financially stable families. However, their privileges did not always contribute to their success in music as seen from the quantitative results of the present study.

Middle School Music Achievement Test (MMAT) and *High School Music Achievement Test* (HMAT) were created to assess student music achievement in three main categories – music theory, general knowledge of music, and music in social context – based on standards of *the Basic Education Core Curriculum 2008*. Significant results were found in the mean total scores of both middle school and high school levels. According to the data, public middle school participants scored the highest. This was followed by private and international middle school participants respectively. The results from the post hoc comparisons indicated a significant difference in the total mean scores between public school and international school participants – the highest and the lowest group. The results contradicted my speculation that, because of the limited opportunities, public school students were put in a disadvantaged position. Ironically, international students who were supposed to be in an advantage position scored the lowest.

The situation for high school was different. Although significant results were found in the mean total scores of high school participants, the ranking differed from that at the middle school level. International high school participants scored the highest on the HMAT. This was followed by public high school and private high school respectively. Results from the post hoc comparisons indicated the significant difference in the total

mean scores between international school and private middle school participants – the highest and the lowest group. Prior to quantitative data collection, international school students were the group that I speculated to be the most privileged and to score the highest in all levels. Quantitative results indicated that types of schools might not be the main factor that could impact student music achievement. Other factors confounded the outcomes and distinguished schools as individual units. The mixed methods approach was essential as it provided in-depth information of the unanswered questions.

Another observation regarding influences of schools as individual units rather than types was evidence that I found in public school data. As described in Chapter Four, the total scores of public middle school and public high school participants were not normally distributed and appeared in a non-symmetric bimodal distribution indicating two distinct groups within one data set (Figure 7 and 8). Judging from the mean total scores of MMAT and HMAT, public school participants seemed to perform well in both levels. However, the raw data showed a wide gap between three public schools participating in this present study: school A, school B, and school D. School A ranked seventh or the lowest in both middle school (M = 11.81, SD = 2.61) and high school level (M = 14.16, SD = 7.4). School B ranked first in middle school level (M = 29.22, SD = 6.5) and second in high school level (M = 30.41, SD = 5.66). School D ranked second in middle school level (M = 28.35, SD = 4.87) and first in high school level (M = 32, SD = 6.51). It appeared that school B and D were at the head of the pack, while school A was at the bottom. This drastic difference in data, once again, signified that types of schools might not be the dominant factor that affected student music achievement. Instead,

schools as individual units probably had a stronger impact on their students' learning outcomes.

Figure 7. Total Scores of Public Middle School Participants
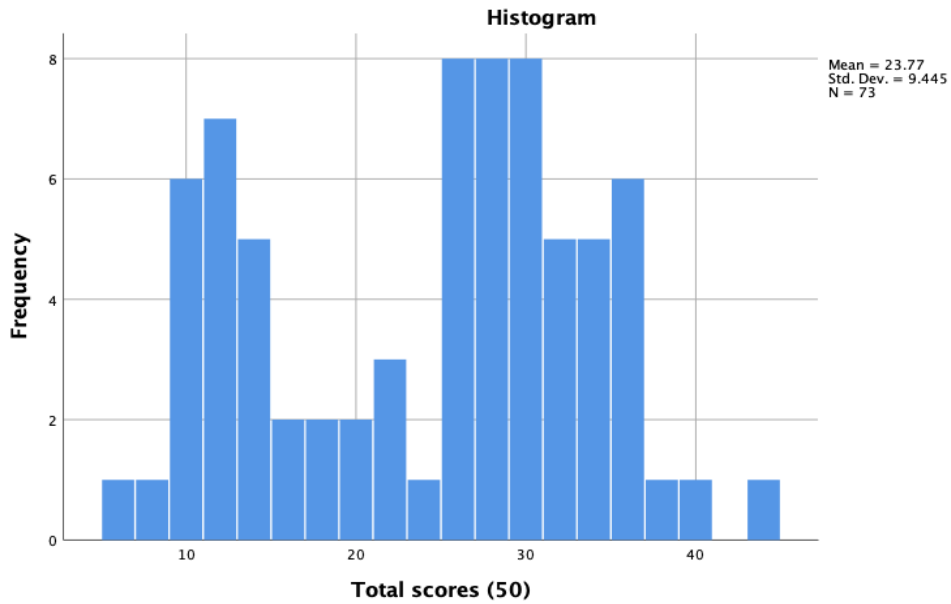
Figure 8. Total Scores of Public High School Participants
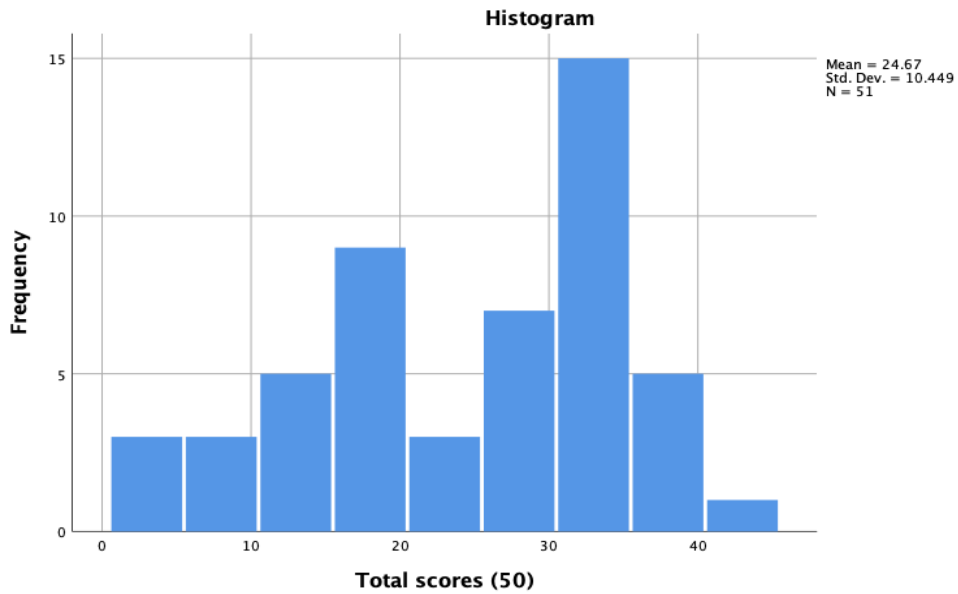
Aside from the total scores, I conducted a multivariate analysis of variance or MANOVA to determine whether significant differences existed in the subset scores among public, private, and international schools. According to the results, significant differences existed in the subset scores of both middle school and high school participants. Post hoc comparisons were conducted in order to determine which group differed statistically. Once broken down into categories, public middle school and high school participants ranked first in music theory and general knowledge of music category, while international middle school and high school participants ranked first in music in social context category. As stated in Chapter Three, the format of MMAT and HMAT is a combination of selected-response and constructed-response. The selected-response component consists of 20 multiple-choice questions, five true-false questions, and five matching items. Test items on the selected-response part focus on the topics of music theory and general knowledge of music, while constructed-response part concentrates on music theory at the analysis level and music in social context. Music in social context category was created in the form of an extended-response question or an essay question where participants were asked to elaborate on their ideas about topics involved with the influence of music and musicians in the society, the role of musicians in the society, and essential qualities of successful musicians. The reason behind the outstanding scores of international school participants could, perhaps, come from the tradition of transmission learning that has long been implemented in Thai education. Academic writing was not a common type of assessment in Thai schools. Both public and private schools in Thailand were recommended to use the *Thai Basic Education Core Curriculum 2008*, although teachers were allowed to adapt according to the learning

circumstance, contents and standards of this curriculum did not promote critical thinking

or creativity. International schools, on the other hand, implemented British and American

curricula in which academic writing was more common. Also, the structure of Western

curricula was different from *the Thai Basic Education Core Curriculum 2008* in the sense

that there was a clear paradigm for critical thinking and creativity. This could possibly be

one of the factors that prevented public and private school students from excelling in the

music in social context category although they performed rather well in the other two

categories, which appeared in the form selected-response, e.g., multiple-choice questions,

true-false questions, and matching items.

Qualitative Results

The qualitative analysis of this study was designed to provide in-depth

information that can further explain influences on student music achievement.

Qualitative data analysis of the present study followed Saldana's (2016) streamlined

codes-to-theory model for qualitative inquiry. Three categories relating to student music

achievement were synthesized from within-case and cross-case analysis. The first

category was "self." Three subcategories were identified under this main category: music

curiosity, self-initiation, and background and experience. The second category was

"school." There are four subcategories identified under this category: teachers, music

programs, school features, and peers. The final category was "family." This category

associated with three subcategories, that is, family support, family value, and family

influence.

Qualitative interviews obtained from selected teachers and students revealed a

distinct situation in each school. School A was an example of a public school with limited

budget, insufficient resources and facilities, and an incompetent music teacher. All of these factors influenced the level of student music achievement. School C was a private school with abundant resources. However, the school chose to invest in extracurricular music rather than curricular music. Consequently, music was not inclusive to all students. School D was a public school that had a good management of modest resources and a music teacher with high competence and high commitment. As a result, overall students represented high achievement in music, regardless of their moderate resources. School E was an international school that had a different approach to music teaching. School E emphasized non-traditional types of music, which was an influence of the music teacher. School E provided their students with decent music resources, facilities, and plenty of opportunities to perform. However, two students from this school reported having different learning experiences. The high achieving student of school E reported being well served by the school. On the other side, the low achieving student from the same school reported that he felt excluded from the majority of students in his music class. Because of this, this student chose to be involved in music outside of school. School F was also an international school. The music department of school F was small but ample. The music teacher of this school showed high competency and commitment. Because of the small student population, students and the teacher bonded together. This positive relationship helped enhance students' academic performance and their success in music.

Presentation of Mixed Methods Analysis

In this section, I present the integrated results from mixed methods analysis. The first section begins with a mixed methods matrix focusing on integrated qualitative and quantitative data. This is followed by presentation of themes. Three themes emerged from

the mixed methods analysis. This section aims to answer the research question 4 of the present study.

Research question 4 – how do students' music background and school experience relate to their music achievement?

To determine relationships between student music achievement and influential factors, quantitative and qualitative results were integrated. The combination of quantitative and qualitative data provided a richer explanation of student music achievement. The quantitative data assisted in identifying high and low achievers, while providing a synthesis of what music achievement looked like in each type of school and as a single unit. The qualitative data unpacked students' music experience inside and outside of their schools as well as exploring how these experiences connected to the student achievement measures. Qualitative data also assisted in obtaining key information from the teachers which enhanced the understanding of school context.

To answer research question four, I constructed the mixed methods integration matrix as an effective way to display the relationship between quantitative and qualitative results (Table 10). This was to determine whether or not the individual music achievement of students aligned with the overall school music achievement and the three categories that emerged from the qualitative analysis.

The matrix is arranged chronologically and by types of data. The first column to the fourth column present quantitative data according to seven schools participated in this phase. The fifth and sixth columns provide summary information about the student participants. Column seven, is a summary from the three categories indicating types of

Table 10

Mixed Methods Integration Matrix

School	Type	MS		HS		Student	Music Achievement	Influences		
		M	Rank	M	Rank			Self	School	Family
A	Public	23.64%	7	28.4%	7	Boss	Low	✓	✗	✗
B	Public	58.4%.	1	60.82%	2	-	-	-	-	-
C	Private	50.28%.	3	47.6%	5	Momotaro	Low	✓	✗	✗
D	Public	56.8%.	2	64%	1	N.T.	High	✓	✓	✓
E	International	31.4%	6	48.8%	4	Bebop	High	✓	✓	✓
						Not	Low	✓	✗	✓
F	International	39.6%	4	53.5%	3	Nerko	High	✓	✓	✓
G	Private	33%	5	35.8%	6	-	-	-	-	-

Note: M = Mean total scores in percentage

support student participants received that could possibly impact their levels of music achievement.

Mixed methods analysis revealed that high achieving students tended to have support across categories of influences, while low achieving students relied mostly on their own impulse. Students whom I interviewed during the qualitative phase demonstrated certain levels of music curiosity, self-initiation, and music experience. All high achieving students, however, were provided with extra resources and emotional support by their families. N.T., Bebop, and Nerko manifested not only a high level of musical curiosity and self-initiation, but they were also financially supported by their families, which included private music lessons and a great number of musical instruments. Low achieving students, on the other hand, did not report receiving extra resources from their families. Boss, Momotaro, and Not presented a certain level of musical curiosity and self-initiation. Boss and Momotaro, unfortunately, they did not receive extra resources from their families, only emotional support. Not received some, but not closed to what the high achieving students received. Families contributed greatly to students' music experiences and backgrounds. These experiences and backgrounds certainly affected their music achievement.

Schools also played an important role in differentiating the level of student music achievement. Boss was a typical example of not being well served by his school. His musical skills and knowledge were built up primarily because of his own initiative with the minimum support from his music teacher, school resources, or the curriculum. His case was an example of a student's achievement being negatively impacted by what a school had to offer. Boss was categorized as low achieving, which aligned with the

overall music achievement of his school. According to the quantitative data, school A ranked seventh for both MMAT and HMAT. However, qualitative data revealed that Boss was a self-taught musician. He relied a lot on his own impulse when it came to learning new skills. Unfortunately, Boss was neither well supported by his school nor his family. His case demonstrates a relationship between low achievement and the lack of outside support beyond his control.

Momotaro, although he attended a prestigious private school with a great music budget and a well-known orchestra program, did not receive adequate opportunities because of his choice not to participate on the after-school orchestra. His case revealed an ironic truth about an elite private school and its direction to prioritize extracurricular music over curricular music. Momotaro was categorized as low achieving according to his score on the HMAT. According to information obtained from the teacher, school C invested a great amount of money on an afterschool orchestra program and international music competitions rather than music taught in the classroom. Therefore, only those who participated in the afterschool orchestra could maximize the benefits. Momotaro was not one of them. His music experience was limited to general music class and Thai Classical music ensembles. Momotaro's case confirmed that a school could have an impact on student music achievement. While money could certainly increase students' opportunities, it did always not guarantee positive learning outcomes. Other factors such as school direction and school culture confounded the results.

Not went to an international school that had a positive learning environment and offered great music resources and facilities. He, however, did not receive equal opportunities compared to his peers because the types of ensembles and repertoire offered

by the school music program did not match with his interests. Due to his score from HMAT, Not was classified as low achieving. Looking further in the overall school music achievement, school E ranked fourth place in the mean score of HMAT and sixth place in the mean score of MMAT. School E did not perform well as a unit. Not's score came in low as well. According to his interview, Not received sufficient opportunities from his family and presented a moderate level of musical curiosity and self- initiation. Not, however, was not well served by his school. Although the school E music program offered decent music resources and facilities to their students, Not still indicated his experience in school music was one of being "isolated" and "it's like we're learning on our own." Since music resources and facilities were adequate, the problem could, perhaps, come from the limitation of his music teacher.

On the other side, all high achieving students were well served by their schools. N.T.'s case revealed that her music achievement aligned with the overall school music achievement as well as the three categories of influences. Quantitative data indicated that school D ranked first place in the mean score of the *High School Music Achievement Test* (HMAT) and second in the mean score of the *Middle School Music Achievement* Test (MMAT). N.T. herself was not only categorized as high achieving, but also ranked first of all 137 high school participants from the quantitative phase. According to her interview, N.T. manifested a high level of musical curiosity and self-initiation and was given a wide range of opportunities from her family. Although N.T. went to a public school with moderate resources and facilities, she was mentored by a qualified and experienced music teacher. She was also exposed to diverse musical opportunities, from being a section leader to a teaching assistant.

Nerko's case was similar to N.T. in the sense that she studied with a highly qualified music teacher. Aside from her teacher, Nerko was privileged to attend a school that invested a decent amount of money on music resources and facilities. She was classified as a high achieving student according to her HMAT score. Like other high achievers in this study, Nerko demonstrated a high level of musical curiosity and self-initiation. She was also fortunate to grow up in a family where music was extremely valued. Her case confirmed the cohesion between the quantitative and qualitative data of this study.

Bebop's case presented a slight contradiction between quantitative and qualitative data. Despite the lower ranking of school E, Bebop was categorized as high achieving according to his music achievement score. The follow-up qualitative data revealed his solid music background, which was affected by all categories of influences. Bebop manifested a high level of musical curiosity and self- initiation. He was also well-supported by his family – both financially and emotionally. Bebop's musical interests matched with what the school had to offer. Therefore, his knowledge and skills accelerated. However, his music achievement seemed more like a result from his own motivation and upbringing rather than school. Another fact I found very interesting was that Bebop referred to his school music teacher as an inspiration to play music. He also referred to his friends as "musical" and "focus[ed] more on playing music." The combination of music teacher and peers was a positive influence in Bebop's case, whereas Not – who attended the same school – expressed his opinions on the same music teacher and peers differently. This could be interpreted as Bebop being well served by the

school, but only because the experience offered by the school matched the opportunities he already had.

Discussion

Emergent Themes

Three themes emerged from the mixed method analysis (Figure 9). The first theme is students begin their own musical pathways. The second theme is families bring assets and support. The third theme is schools provide opportunities that can fill in the gap of what students lack.

Students Begin Their Own Musical Pathways

Based on the analysis, all student participants in the qualitative phase demonstrated a certain level of musical curiosity and self-initiation. They also had a background and experience in music. Although some student participants were more experienced than others, there was evidence that all of them were involved in musical activities beyond what their schools offered. Each student participant made explicit that music was a part of their lives. Boss, although he was not well served by his school, was interested and took initiative in music. His musical involvement, however, did not go beyond an activity for leisure. Not was involved in music outside of school because he was seeking for the kind of music that could fulfill him since the school music failed to do so. He was interested in playing guitar and listening to the type of music that he enjoyed. He was not interested in any deeper concepts of music. Momotaro joined the afterschool Thai Classical ensemble, which was his only in-school musical activity. He spent more time outside of school practicing and listening to Thai Classical music during

Figure 9. Presentation of Themes and Categories

THEORY – Social Justice in Education

THEMES
1. Students begin their own musical pathways.
2. Families bring assets and support.
3. Schools provide opportunities that can fill in the gap of what students lack.

Category A
Self

Category B
School

Category C
Family

Subcategory I
Music curiosity

Subcategory I
Teachers

Subcategory I
Family support

Subcategory II
Self-initiation

Subcategory II
Music programs

Subcategory II
Family value

Subcategory III
Background & Experience

Subcategory III
School features

Subcategory III
Family influence

Subcategory IV
Peers

his free time. However, he was not interested in other genres of music as much as Thai Classical music. Bebop, on the other hand, went above and beyond. Bebop listened to various kinds of music. He did not only listen. Bebop listened, analyzed, and continue learning complex concepts of music during his own free time. Furthermore, Bebop taught himself multiple instruments. Piano was his main instrument that he had a privilege of taking private lessons. However, Bebop did not stop there. He explained during the interview that he picked up other skills from musical channels on YouTube and practiced by himself without a supervisor. Similar to Nerko and N.T., the two girls demonstrated an intense level of music curiosity and self-initiation. They both taught themselves to play musical instruments aside from their main instruments. They also listen to various genres of music for analytical purpose and for leisure.

Puasuriyan published a study in 2011 on relationships between 12th grade students' self-efficacy and their music theory achievement. A correlation coefficient indicated a moderate positive relationship ($r = .66$) between student music achievement scores and their self-efficacy ratings. Self-efficacy begins to form at early ages and continues to develop throughout life as people acquire new skills, experience, and understanding. The most effective way to develop a strong sense of efficacy is through mastery experiences (Bandura, 1997). Thus, Puasuriyan's results aligned with results of the present study. From qualitative interviews, students' level of music curiosity and self-initiation seemed to relate to their music background and experience, which influenced their level of music achievement. High achieving students, such as Bebop, N.T, and Nerko, demonstrated an intense level of music curiosity and self-initiation. Their musical involvement went far beyond curricular or extracurricular music. They were enthusiastic

to learn on their own and in a deeper level. Aside from other life advantages, high achieving students' success in music was built from factors initiated in them. There seemed to be differences between high achieving students and low achieving students in a sense that high achieving students were more engaged in learning advanced skills. Although all student participants in this phase made explicit that music is a part their life outside of school. I still captured the nuances among cases of students beginning their own musical pathways.

Music influences and factors initiated in students themselves, however, may not be sufficient for students to excel at music achievement, at least not in present study. Self-initiation and curiosity are a great starting phase. However, it can be limited and can probably get students up to a certain level. Mentors are helpful in guiding students through the learning process for the most effective results and to maximize their potential. Also, self-learning is a one-way communication. The lack of feedback from experts can prevent students from growing and reach their full potentials. Feedback is crucial. It helps students think critically about their performances and gives them directions toward improvement that they need. Other themes revealing outside influences on student music achievement are presented in the following section.

Families Bring Assets and Support

Families can have a great impact on students' success in music. According to the analysis, students' music background and experience was a consequence of their upbringing. Their prior music knowledge and skills contributed tremendously to the level of their music achievement. All high achieving students received greater opportunities, especially from outside of school, compared to the low achieving students. Mixed

methods analysis revealed that the family category is missing from most cases of low achieving students. These family influences gave high achieving students advantages over the low achieving students.

All high achieving students – N.T., Bebop, Nerko – reported taking private music lessons and owning several musical instruments. N.T. grew up in a family that valued music. Her parents encouraged her to pursue a career in music. Bebop's parents were supportive of every choice he made regarding his musical involvement in and out of school. His parents were generous enough to invest their money on many courses of private music lessons and various musical instruments. Nerko grew up in a musical family. She was influenced to play music and encouraged to take music private lessons from a young age. Such experience was not mentioned by any of the low achieving participants. Not was the only one, of all the low achieving participants, who mentioned taking private guitar lessons. However, he did not mention additional supportive gestures from his family. The other two low achieving participants, Boss and Momotaro, did not mention any supportive gesture from their families beside the fact that they were free to participate in any activities that they wished to.

Several previous studies connect to these results. In terms of general education, family socioeconomic status is one of the strongest and most robust predictors of academic achievement. The relationship between family socioeconomic status and student achievement was evident not only in youths' performance on standardized tests, but also in years of completing schools and degree attainment (Barr, 2015). As for music education, parental influence was shown to be beneficial as well. McClellan (2007) conducted a quantitative study investigating relationships among parental influences,

selected demographic factors, academic achievement, adolescent self-concept as a future music educator, and the decision to major in music education. Results indicated that parental influence has distinct relationships to adolescents' motivation to participate in music activities, subjective perceptions of self in music, the decision to major in music education, and self-concept as a future music educator. Kinney (2008) asserted in another study that middle school students with higher SES scored significantly higher than students with lower SES on academic achievement tests. The results of the academic achievement test correlated with types of ensemble participants, e.g., band, choir, and none. Results of this study revealed that band students scored significantly higher than choir participants and non-music participants. Participating in a school band involved investing more money than choir or not participating in school music programs. Thus, the researcher suggested that band students were those with higher SES and were more likely to perform better academically than students with lower SES.

Similarly, Jannings (2018) asserted in his mixed method study of the music home environment and the high-school ensemble experience as influences on the continued participation of string players, that financial status had a dramatic impact on the music experience. One student participant of this study explained that her lack of access to private lessons resulted in her having less technical skill and knowledge than other fellow musicians. On the other hand, four other students mentioned how grateful they were to their parents and how fortunate they felt for positive influence of their family's financial stability.

Epstein (1985) stated that, "The evidence is clear that parental encouragement, activities, interest at home, and parental participation in schools and classrooms can

positively influence achievement, even after the student's ability and family socioeconomic status are taken into account" (p.19). Without a doubt, families are an important factor that can affect student music achievement. Some students may not be so fortunate that their families can afford and invest on the extras beyond what schools have to offer. However, parents can still teach values and influence their children with a positive attitude toward music through informal learning. Despite family socioeconomic status, learning music can be done with supportive gestures and encouragement from family members. Nerko was a good example of family being a positive influence. Nerko grew up in a family that valued music. Music had been a part of her daily life since a young age. She might be fortunate in some ways. However, her love for music and her desire to learn music was a result from her upbringing. Such encouragement and support do not require extra resources or a huge financial investment.

While studies involving the impact of family factors on students' academic and music achievement were common among American educators and scholars, no Thai literature was found associated directly with family influence on student music achievement yet. Although evidence from this present study designated a potential relationship between families and student music achievement, further investigation is still required in order to better understand the ways in which these relationships or limitations of these relationships can be understood and maximized for all students.

Schools Provide Opportunities that Can Fill in the Gap of What Students Lack

Of all the categories of influences, schools appeared most frequently in the data and seemed to have a strong relationship with student music achievement. As the theme suggested, schools are places of opportunities that can fill in the gap of what students

lack, whether it be families or students themselves. This theme can be implied conversely. Schools, if they fail to teach, could limit students' opportunities and put students in a disadvantaged position. Based on the analysis of this present study and existing literature, students' music opportunities depended greatly on their teachers.

Teachers can have a direct impact on students' learning outcomes. Their teaching competency results in student achievement. Their values and beliefs can have either positive or negative influences on and students' attitude as well as motivation to learn. Certainly, students can teach themselves especially for a subject like music. However, self-learning can be sometimes limited. On the other side, teachers are capable of assessing students' level of competency and designing approaches that are most appropriate for their students. Teachers can also help students learn in the most efficient way since they are experts on the subject. Therefore, it is crucial for principals and school administrators to manage the quality of teachers.

In the present study, there are several cases that music teachers appeared to have positive influence and contributed toward student achievement especially in cases of high achieving students. School F was an outstanding example of teacher positive influence. Nerko's teacher was a qualified and experienced music teacher who was aware of educational equity and equality. During her individual interview, Nerko explained what she learned from school music class as she walked through her class routine. Learning topics and class activities that Nerko and her classmates experienced included music and performance analysis, music score analysis, composition, listening, and performing. Those topics were more advanced than topics mentioned by participants from other schools. Besides curricular music, Nerko's teacher also made an effort to integrate

commercial and contemporary music with Western Classical music, making school music more interesting and relatable to students' music experience outside of school.

School D was another example of a teacher's positive impact on student music achievement. School D was an extra-large public school with a moderate music budget. Nothing was special in terms of music resources and facilities. N.T., the student representative of school D, was not only categorized as a high achieving student, her HMAT score also ranked number one of all 137 high school participants. Beside her other advantages outside of school, N.T. was mentored and educated by a certified music teacher, Marcato, who was experienced in the area of curriculum as well as research. Marcato had almost three decades of teaching experience. He also specialized in *the Thai Basic Education Core Curriculum 2008* since he was recruited by the Ministry of Education to be a part the curriculum development in 1999. Because of this, Marcato understood the nature of the curriculum and was well aware of its limitations. He was able to prioritize curriculum content and planned his teaching strategies to match the needs of his students, while giving them hands on experiential learning. Quantitative results of the present study revealed that mean scores of school D participants ranked number one for high school and second for middle school. Combining quantitative and qualitative results together, it is clear that a qualified teacher could make up for the lack of money or fancy resources in a public-school music program.

School A, on the other hand, presented a case of the teacher's negative impact on student music achievement. According to the quantitative results, School A ranked seventh place or the lowest in both middle school and high school level. Ironically, school A and school D implemented the same curriculum. Both schools were public

schools. Their main source of income came from the Ministry of Education. It was interesting to see a great difference in students' performances from two schools that shared similar traits. Boss was a representative of school A. He was categorized as a low achieving student due to his score on HMAT. Despite his low performance on the test, Boss was a self-taught musician. He sang, played several musical instruments, and occasionally performed. He was far from being a novice. However, Boss' music experience was a result of his own curiosity and initiation. School did not help him achieve much. During his interview, Boss revealed his experience in school music. Apparently, Boss and his classmates did not learn much. "A few note readings, which I didn't understand. He [music teacher] went too fast. He was not very good at explaining things" This was Boss' explanation when I asked specifically what he learned in music class. His statement regarding the music teacher aligned with the statement of Lunlilyn, the head arts department at school A. "No structure whatsoever. He [the music teacher] did what he wanted to. He just doesn't care." This statement was Lunlilyn's answer as I probed her to speak about the music teacher who worked under her. Combining together quantitative and qualitative results, school A participants' performance on MMAT and HMAT was not a surprise. Aside from limited resources and facilities, quality of teachers was also a key factor that could either positively or negatively impact student achievement. Unfortunately, according to the head of the arts department, school A music teacher did not present quality in his teaching proficiency that could lead his students to high achievement in music.

Several issues regarding quality of teachers in Thailand were raised in related

literature. Hallinger and Lee (2011) brought up an issue relating to teacher education

programs offered by Thai colleges and universities. One of the problems was the lack of

standardization in teacher education programs across institutions. Thus, the quality of

teachers varied depending on their pre-service experience. Another problem was the fact

that teacher education program in Thailand neglected some vital areas. Those areas

included student assessment and curriculum development and adaptation. Additionally,

Thai preservice teachers focused heavily on subject matter mastery rather than pedagogy,

especially child-centered teaching. Hallinger and Lee suggested that Thailand should

create a nationwide teacher development strategy to ensure quality and consistency in

general education.

Jang (1990) stated that music education, like general education, requires

proficient teachers to achieve the desired goals. While other factors can add up to

students' success in music, teachers still remain the key factor. As described in Chapter

Two, not all schools in Thailand hired certified music teachers. Po-ngern published a

survey study of in-service music teachers from Thai public and private schools in 2011.

Results of this study indicated that 64.9% of participants were college graduates with

music degrees, while 35.1% of participants were college graduates with non-music

degrees. The majority of the participants indicated that they were able to cover all

essential contents recommended by the *Basic Education Core Curriculum 2008*.

However, participants with non-music degrees reported "not feeling confident" teaching

curriculum content especially music theory. Similar results were found in a study of

Yimpluem et al. (2013). According to the survey questionnaire results, 96.2% of music

teachers who taught at schools under the Suratthani educational service area 3 had

bachelor's degrees. However, only 11.5% of those participants had bachelor's degree in

music education. Participants of this study also reported having low musical skills and

knowledge. Based on this information, the inconsistency and the lack of quality could be

expected from school music programs across the country.

Beside music teachers, school music programs were also crucial as they could

either increase or decrease students' opportunities. Music programs covered areas such as

resources, facilities, budget, musical activities, and school support. These elements,

although they did not guarantee students' success, still played an important part in

creating opportunities for students. Two cases of high achieving students, Nerko and

Bebop, were examples of well-equipped school music programs. School E and F were

both international schools. Facilities and resources were premium since their tuition fees

were much higher than tuition fees of public and private schools. Both school E and F

offered their students proper music rehearsal rooms, practice rooms, auditoriums, and

decent collections of musical instruments. With these facilities and resources, a great

number of musical activities were made possible to students. Bebop mentioned various

types of musical activities happening in school E, such as interschool music competition,

music practical exam, holiday events, commencement, and interschool music festivals.

Similar to school F, Nerko mentioned a variety of activities including the end of year

concert, Christmas concert, dance competition, and musicals. Such activities were not

mentioned by any of the public-school participants. Public school music programs were

much more limited in terms of resources and facilities. Their musical activities were

primarily marching bands, concert bands, and rock bands formed by students themselves which were excluded from the school music programs.

Educational inequity and inequality are not new in Thailand. This issue has long been a problem that prevented Thai education from reaching the global standard. Fry et al. (2018) published a mixed methods study on regional educational disparities in Thailand. This study was conducted through the theory that academic achievement of students depended on locations, for instance metropolitan area versus the rural area. Results of the study were as expected: all the top-ranking provinces were located in the central places and metropolitan areas including Bangkok, whereas the lowest ranking provinces were located in the disadvantaged Northeast and deep South. According to the researchers, one major factor affecting quality in education was the great disparity among schools with regard to education resources. Thailand was near the bottom of countries participating in the *Program for International Student Assessment* (PISA) in terms of equity in educational resource allocation. The poor practice of equal per-student budget allocations resulted in considerable inequity among schools. This meant that big schools had far better resources than small schools, where the needs were explicit. Thus, students in bigger and better endowed schools performed better academically because they had access to greater resources.

However, having a great budget and abundant resources does not always guarantee students' success in music. Based on the analysis of this present study, school C presented a case of students' opportunities being limited by the school direction. School C was an elite private school that valued music enough to pay an extravagant budget on the school orchestra and international music competitions because all of these

extras contributed to the school reputation. However, school C forgot that not all students joined the afterschool orchestra. The school also forgot that, by neglecting curricular music, a great number of students were left out. They were restricted from learning things that they were supposed to learn. Only a handful of their students could benefit from their fancy extracurricular music program. This case suggested that money does not necessarily lead to academic success. It takes careful management and a holistic perspective concerning all areas of development in children for a music program to become successful and inclusive for all.

Implications for Practice and Recommendations for Future Research

Issues of educational inequity and inequality have presented problems in our system for decades. While the Thai government attempted to change and improve the quality of general education, music was never the focus. Substantial numbers of schools still reported a lack of music resources and a lack of certified music teachers. The purpose of this study was to assess student music achievement, understand students' music experience relative to the level of music achievement, and to explore relationships between student music achievement and possible influential factors, such as teachers, schools, curricula, students' background characteristics, and students' life experience. Even though families turned out to be a factor that contributed strongly to students' success in music, schools could fill in the gap of what students lack and enhance their music achievement. The combination of results from this present study and the existing problems regarding educational inequity and inequality can provide music teachers, school administrators, parents, and policy makers with some suggestions.

Qualified music teachers are crucial. Similar to core subjects, Thai school administrators and principals should pay more attention to manage the quality of music teachers by shifting toward hiring certified music teachers, providing ongoing training to maintain the quality of teaching, and consistently evaluating their in-service music teachers to ensure the quality and effectiveness of teaching. As for higher education, music teacher training programs offered by Thai universities and colleges should incorporate and enhance the areas of curriculum development and adaptation and child-centered pedagogy into their program to better prepare the pre-service music teachers instead of focusing on only subject mastery. Thai universities and colleges should also offer a music education integrated program to all music majors. This could provide an alternative and music education foundation to music majors who may end up teaching in schools.

As previously stated in Chapter Two, Thailand is a middle-income country with low research and development expenditures. The status of research and development in Thailand is still weak compared with developed countries. The low numbers of research studies contribute to weakness in the Thai educational system (Yuthavong, 2018). Through the research process I struggled trying to find Thai literature to support or provide information needed for my study. Besides the limited number, the quality of research studies on Thai music education also presented problems. For quantitative research, future researchers need to incorporate inferential statistics into their studies along with summary statistics in order to enhance the quality of their studies and to provide other researchers with accurate and useful information. For qualitative research, national research universities need to educate their students and future researchers with

the appropriate research methods to avoid misinterpretation and misconception as well as to enhance the quality of work in general.

Specific to music education, this present study provides evidence that music teachers can have great impact on student music achievement, whether negative or positive. Due to the time limit of the present study, I was able to cover only schools in the Bangkok area. A similar study could be implemented in the context of rural schools in order to explore music achievement and possible influences in different settings. Also, similar research could be useful if focused on a single school where student music achievement is assessed first and follow by an in-depth interviews or observations This would allow a researcher to concentrate on an impact of a music teacher on low achieving students and high achieving students from the same school. The researcher will have a chance investigate the teachers' background, experience, perspective, value; how those aspects influence a teacher's curricular and pedagogical decisions; and how those decisions relate student learning achievement. It would also be helpful for music educators and school administrators to have research that focuses on differences between qualified music teachers and non-qualified music teachers and the impact of those teachers on student music achievement.

Conclusion

Educational inequity and inequality were issues that initiated this present study. I believe every child has a right to an excellent music education. Unfortunately, music is not perceived as an essential skill for children and adolescents to have in our culture because of differences in values and beliefs. Through this intense research process, I learned that students are involved in music both in and out of school. Music is a part of their lives. To some students, music is their leisure activity. Some students may take music more seriously and perceive it as a potential career. No matter what they prefer, all students should have an equal opportunity to a high quality music education. This present study fills a gap in the existing literature regarding music achievement, educational inequity and inequality, while offering an insight into Thai music education. Still, there is a lot of work left to be done for Thai children and adolescents to have an equal access and opportunity. As my advisor always says, it takes one brick at a time. This study is only a small brick. However, I hope that this one brick will contribute to a great wall in the future.

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APPENDIX A

MIDDLE SCHOOL MUSIC ACHIEVEME NT TEST (MMAT)

1

Name of student……………………………………………..
Name of music teacher…………………………………
Grade level …………………………………………………….
School ……………………………………………………………..

Middle School Music Achievement Test
Based on Thai Basic Core Curriculum (2008)

A. <u>Multiple Choices (20 points)</u>

1. Name the following notes on the bass staff.

a.) E, F, D, C, F

b.) G, A, D, C, F

c.) E, F, E, D, G

d.) G, A, F, E, A

2. Name the following notes on the treble staff.

a.) G, F, E, B, A

b.) G, F, D, A, G

c.) B, A, G, D, C

d.) B, G, D, C, B

3. Name the following notes on the grand staff.
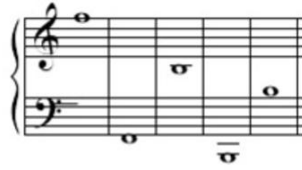
a.) A, A, E, G, E

b.) F, B, B, G, B

c.) F, F, B, B, B

d.) A, F, D, B, B

4. Given the following melodic fragment: G-B-A-B-D-C-E-D, which is the correct transposition using C as a new starting pitch?

a.) C-E-D-E-G-F-A-G

b.) C-E-D-E-F-G-A-G

c.) C-D-B-A-F-G-B-C

d.) C-D-E-G-F-A-G-A

5. Given the following melodic fragment: B-A-G-A-B-B-C-D, which is the correct transposition using C as a new starting pitch?

a.) C-D-E-C-D-D-C-E

b.) C-B-D-B-C-C-D-E

c.) C-D-E-D-C-C-D-E

d.) C-B-A-B-C-C-D-E

6. Which name and description are correct about this note value?

$$\frac{4}{4} \quad \eighthnote$$

a.) Whole note = 4 beats

b.) Half note = 2 beats

c.) Quarter note = 1 beat

d.) Eighth note = ½ beat

7. Which name and description are correct about this note value

$$\frac{4}{4} \quad \dottedhalfnote$$

a.) Dotted half note = 3 beats

b.) Dotted half note = 1 ½ beats

c.) Dotted whole note = 6 beats

d.) Dotted whole note = 1 beat

8. Sum the total number of beats of the following rhythmic fragment.

a.) 7

b.) 8

c.) 9

d.) 10

9. Sum the total number of beats of the following rhythmic fragment.

a.) 11

b.) 12

c.) 13

d.) 14

10. Sum the total value of the following rhythmic fragment.

a.) 6

b.) 5

c.) 4

d.) 3

11. What is the correct key signature for D major?

a.)

b.)

c.).

d.).

12. What is the correct key signature for B major?

a.)

b.)

c.)

d.)

13. What is the correct key signature for E flat major?

a.)

b.)

c.)

d.).

14. Indicate the correct name for the following scale.

a.) F harmonic minor

b.) F major

c.) D harmonic minor

d.) D melodic minor

15. Indicate the correct name for the following scale.
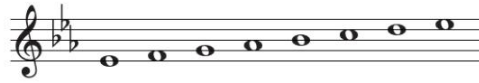
a.) E flat major

b.) C natural minor

c.) E flat natural minor

d.) C major

16. Indicate the correct name for the following scale.
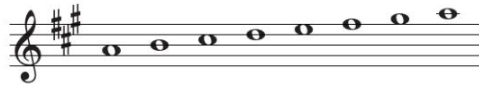
a.) A natural minor

b.) F sharp harmonic minor

c.) A major

d.) F sharp major

Use the following musical excerpt to answer question 17 and question 18

Sonata in C
K. 545
for piano solo

W.A. Mozart (1756-1791)

17. What does the word "Allegro" in the circle number 1 mean?

a.) Play slowly

b.) Play at a walking pace

c.) Play fast, quick, and bright

d.) Play very fast

18. What does "*p*" in the circle number 2 mean?

a.) Pause

b.) Play loud

c.) Play soft

d.) Play in a short duration

19. What is the correct name of this instrument?
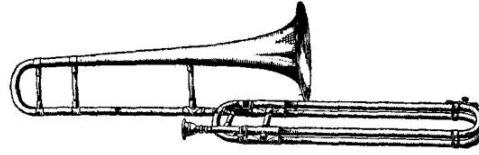
a.) Tuba

b.) French horn

c.) Trumpet

d.) Trombone

20. What is the correct name of this instrument?

a.) Saw Duang (ซอด้วง)

b.) Saw Sam Sai (ซอสามสาย)

c.) Jakey (จะเข้)

d.) Saw Oo (ซออู้)

B. Match the following items (5 points)

_____ 1. $\frac{4}{4}$ ♫♫ + ♫♫ + ♩ + ………. = 6 beats a.) ♫♩ ♩ (triplet)

_____ 2. $\frac{4}{4}$ b.) ¢

_____ 3. $\frac{4}{4}$ ♫ + ♩ + ♩ + ………. = 6 beats c.) ♫

_____ 4. $\frac{2}{4}$ d.) ♩ ♪

_____ 5. $\frac{2}{2}$ e.) ¢

f.) ♩ ♩

g.) ♩ ♩ ♩

C. True or false (5 points)

_____ 1. *Ranat Ek* (ระนาดเอก) is a pitched percussion instrument, consists of metal bars. *Ranat Ek* (ระนาดเอก) is typically performed in *Phi-pat* (วงปี่พาทย์) ensemble and *Mahori* ensemble (วงมโหรี).

_____ 2. *Jakey* (จะเข้) is a standard instrument in *Kruang sai* ensemble (วงเครื่องสาย) and Mahori ensemble (วงมโหรี).

_____ 3. Trombone, and tuba are transposing instruments.

_____ 4. Cello, harp, and bass are instruments in the string family.

_____ 5. *Mahori* ensemble (วงมโหรี) is an ensemble that combines instruments from *Phi-pat* ensemble (วงปี่พาทย์) and *Kruang sai* ensemble (วงเครื่องสาย) together.

D. <u>Music analysis essay (10 points)</u>

Listen to and analyze Beal and Boothe's "Jingle-bell Rock" (score is provided below). Answer the following questions in complete sentences. The length of answers should be approximately one to three sentences.

1.) What are the characteristics of the melody (pitches, range, shape)? (2 points) ....

....

....

2.) What is the main key area of the song? (Hint: key signature) (one point) ....

....

3.) What is time signature of the song and what are the note values are used the most

to create the melody? (2 points) ....

....

....

4.) What are the musical markings used in this song? (2 points) ....

....

....

5.) What is the form of this song (binary, ternary, rondo, strophic) and in what measure

does each section of the form start? (you may indicate each section with letter A, B,

or C) (3 points) ....

....

....

....

....

JINGLE-BELL ROCK

Words and Music by JOE BEAL
and JIM BOOTHE

to go glid-in' in a one-horse sleigh. __ Gid-dy-ap, jin-gle horse,

pick up your feet, __ jin-gle a-round the clock. Mix and min-gle in a

jin-gl-in' beat, __ that's the jin-gle-bell, rock.

that's the jin-gle-bell, that's the jin-gle-bell rock. __

E. Independent essay (10 points)

The length of essay should be approximately one to three paragraphs. Each paragraph should be clear, well organized, and directly addresses the question.

Describe ways in which music can influence our society. Use reasons to support your ideas.

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ชื่อ นามสกุล ....
ครูผู้สอนวิชาดนตรี ....
ระดับชั้นเรียน ....
โรงเรียน ....

แบบทดสอบวัดผลสัมฤทธิ์ภาพวิชาดนตรี (มัธยมต้น)

เนื้อหาตามหลักสูตรแกนกลางการศึกษาขั้นพื้นฐานพุทธศักราช 2551

<u>ข้อสอบปรนัยแบบเลือกตอบ 20 ข้อ</u>

1. จงบอกชื่อตัวโน้ตทั้งหมดบนกุญแจฟา (F clef)

    ก.) E, F, D, C, F   ข.) G, A, D, C, F

    ค.) E, F, E, D, G   ง.) G, A, F, E, A

2. จงบอกชื่อตัวโน้ตทั้งหมดบนกุญแจซอล (G clef)

    ก.) G, F, E, B, A   ข.) G, F, D, A, G

    ค.) B, A, G, D, C   ง.) B, G, D, C, B

3. จงบอกชื่อตัวโน้ตทั้งหมดบนกุญแจซอล (G clef) และกุญแจฟา (F clef)

    ก.) A, A, E, G, E   ข.) F, B, B, G, B

    ค.) F, F, B, B, B   ง.) A, F, D, B, B

4. จงเปลี่ยนคีย์ (transpose) ตัวโน้ตที่กำหนดให้ เป็นเริ่มต้นที่โน้ต C

G-B-A-B-D-C-E-D

   ก.) C-E-D-E-G-F-A-G

   ข.) C-E-D-E-F-G-A-G

   ค.) C-D-B-A-F-G-B-C

   ง.) C-D-E-G-F-A-G-A

5. จงเปลี่ยนคีย์ (transpose) ตัวโน้ตที่กำหนดให้ เป็นเริ่มต้นที่โน้ต C

B-A-G-A-B-B-C-D

   ก.) C-D-E-C-D-D-C-E

   ข.) C-B-D-B-C-C-D-E

   ค.) C-D-E-D-C-C-D-E

   ง.) C-B-A-B-C-C-D-E

6. จงบอกชื่อและค่าของตัวโน้ตต่อไปนี้

$\frac{4}{4}$ ♪

   ก.) โน้ตตัวกลม (whole note) = 4 จังหวะ

   ข.) โน้ตตัวขาว (half note) = 2 จังหวะ

   ค.) โน้ตตัวดำ (quarter note) = 1 จังหวะ

   ง.) โน้ตเขบ็ตหนึ่งชั้น (eighth note) = ½ จังหวะ

7. จงบอกชื่อและค่าของตัวโน้ตต่อไปนี้

$\frac{4}{4}$ 𝅗𝅥.

   ก.) โน้ตขาวประจุด (dotted half note) = 3 จังหวะ   ข.) โน้ตขาวประจุด (dotted half note) = 1 ½ จังหวะ

   ค.) โน้ตตัวกลมประจุด (dotted whole note) = 3 จังหวะ   ง.) โน้ตตัวกลมประจุด (dotted whole note) = 6 จังหวะ

3

8. จงรวมจังหวะทั้งหมดของตัวโน้ตที่กำหนดให้

ก.) 7

ข.) 8

ค.) 9

ง.) 10

9. จงรวมจังหวะทั้งหมดของตัวโน้ตที่กำหนดให้

ก.) 11

ข.) 12

ค.) 13

ง.) 14

10. จงรวมจังหวะทั้งหมดของตัวโน้ตที่กำหนดให้

ก.) 6

ข.) 5

ค.) 4

ง.) 3

246

11. จงเลือกเครื่องหมายประจำกุญแจเสียง (key signature) ที่ถูกต้องของคีย์ D เมเจอร์

ก.)

ข.)

ค.)

ง.)

12. จงเลือกเครื่องหมายประจำกุญแจเสียง (key signature) ที่ถูกต้องของคีย์ B เมเจอร์

ก.)

ข.)

ค.)

ง.)

13. จงเลือกเครื่องหมายประจำกุญแจเสียง (key signature) ที่ถูกต้องของคีย์ E แฟลตเมเจอร์

ก.)

ข.)

ค.)

ง.)

14. จงบอกชื่อที่ถูกต้องของบันได (scale) เสียงต่อไปนี้
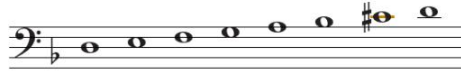
ก.) F ฮาร์โมนิกไมเนอร์

ข.) F เมเจอร์

ค.) D ฮาร์โมนิกไมเนอร์

ง.) D เมโลดิกไมเนอร์

15. จงบอกชื่อที่ถูกต้องของบันได (scale) เสียงต่อไปนี้

ก.) E แฟลตเมเจอร์

ข.) C เนเจอรัลไมเนอร์

ค.) E แฟลตเนเจอรัลไมเนอร์

ง.) C เมเจอร์

16. จงบอกชื่อที่ถูกต้องของบันได (scale) เสียงต่อไปนี้
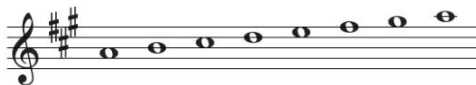
ก.) A เนเจอรัลไมเนอร์

ข.) F ชาร์ปฮาร์โมนิกไมเนอร์

ค.) A เมเจอร์

ง.) F ชาร์ปเมเจอร์

Sonata in C
K. 545
for piano solo

W.A. Mozart (1756-1791)

17. จงบอกความหมายที่ถูกต้องของคำว่า Allegro ในวงกลมที่ 1

      ก. เล่นด้วยจังหวะช้า

      ข. เล่นด้วยความเร็วขนาดก้าวเดินไหลไปตามสบาย

      ค. เล่นด้วยจังหวะเร็ว สดใส

      ง. เล่นด้วยจังหวะเร็วมาก

18. จงบอกความหมายที่ถูกต้องของ "*p*" ในวงกลมที่ 2

      ก. หยุด

      ข. เล่นดัง

      ค. เล่นเบา

      ง. เล่นโน้ตให้สั้น แยกขาดอย่างชัดเจน

19. จงบอกบอกชื่อที่ถูกต้องของเครื่องดนตรีในภาพนี้
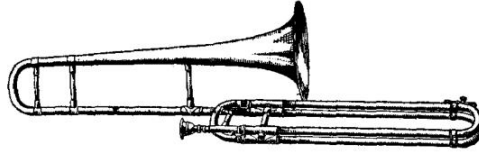
    ก. ทูบา

    ข. เฟรนซ์ฮอร์น

    ค. ทรัมเป็ต

    ง. ทรอมโบน

20. จงบอกบอกชื่อที่ถูกต้องของเครื่องดนตรีในภาพนี้

    ก. ซอด้วง

    ข. ซอสามสาย

    ค. จะเข้

    ง. ซออู้

ข้อสอบปรนัยแบบจับคู่ 5 ข้อ

____ 1. $\frac{4}{4}$ 🎵🎵🎵 + 🎵🎵🎵 + ♩ + ... = 5 จังหวะ   ก.)

____ 2. $\frac{4}{4}$ ข.)

____ 3. $\frac{4}{4}$ 🎵🎵🎵 + ♩ + ♩ + ... = 6 จังหวะ   ค.)

____ 4. $\frac{3}{4}$ ง.)

____ 5. $\frac{2}{2}$ จ.)

      ฉ.)

      ช.)

ข้อสอบปรนัยแบบถูก-ผิด 5 ข้อ ทำเครื่องหมายถูกหน้าประโยคที่เป็นความจริง และทำเครื่องหมายผิดหน้าประโยคที่ไม่เป็นความจริง

_____ 1. ระนาดเอกเป็นเครื่องดนตรีประเภทเครื่องเคาะที่มีระดับเสียง ทำจากโลหะ ระนาดเอกเป็นเครื่องดนตรีที่ใช้เล่นในวงปี่พาทย์และวงมโหรี

_____ 2. จะเข้เป็นเครื่องดนตรีมาตรฐานในวงปี่พาทย์และวงมโหรี

_____ 3. ทรอมโบนและทูบาเป็นเครื่องดนตรีประเภททดเสียง (transposing instrument)

_____ 4. เชลโล ฮาร์พ และเบส เป็นเครื่องดนตรีประเภทเครื่องสาย

_____ 5. วงมโหรีเป็นวงดนตรีที่รวมเครื่องดนตรีจากวงปี่พาทย์ และวงเครื่องสายเข้าด้วยกัน

<u>ข้อสอบอัตนัยแบบคำตอบสั้น 5 ข้อ</u>

       ฟังและวิเคราะห์เพลง "Jingle-bell Rock" โดยการตอบคำถามด้วยประโยคที่สมบูรณ์ คำตอบควรมีความยาวหนึ่งถึงสาม ประโยคโดยประมาณ ใช้ตัวอย่างโน้ตเพลงเพื่อประกอบการวิเคราะห์

1. จงอธิบายลักษณะของทำนองเพลง ในแง่ระดับเสียง (pitch), ความกว้างของทำนอง (range), และ ลักษณะขึ้นลงของทำนอง

(shape) (2 คะแนน) ……

……

……

2. จงบอกชื่อคีย์ที่เป็นคีย์หลักของเพลง สังเกตได้จากเครื่องหมายประจำกุญแจเสียง หรือ key signature (1 คะแนน)

……

……

3. จงบอกชื่อเครื่องหมายกำหนดจังหวะ (time signature) และชนิดของตัวโน้ตตามค่าจังหวะ (note value) ที่ใช้มากที่สุดในการสร้าง

ทำนองเพลงนี้ (2 คะแนน) ……………………………………………………………………………………………………

……

……

4. จงบอกชื่อเครื่องหมายระบุอัตราความช้า-เร็ว ความเข้มของเสียง ความดัง-เบาของเสียง และลักษณะการบรรเลง (musical

markings) ที่ใช้ในเพลงนี้ (2 คะแนน)……………………………………………………………………………………………

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5. จงบอกรูปแบบเพลง หรือ form (binary, rounded binary, ternary, rondo, strophic) ที่ใช้ในการแต่งเพลงนี้ โดยให้ระบุเลขห้องที่

เป็นจุดเปลี่ยนของแต่ละท่อนดนตรี เช่น A B A หรือ A B เป็นต้น (3 คะแนน) …………………………………………………

……

……

……

JINGLE-BELL ROCK

Words and Music by JOE BEAL
and JIM BOOTHE

<u>ข้อสอบอัตนัยแบบเรียงความสั้น 1 ข้อ</u>
เรียงความควรมีความยาวประมาณ 2-3 ย่อหน้า โดยแต่ละย่อหน้าควรมีเนื้อหาที่ชัดเจน เรียบเรียงให้เข้าใจง่าย และตอบตรง
ประเด็น โดยหัวข้อเรียงความคือ:

ดนตรีสามารถมีอิทธิพลและทำประโยชน์ให้สังคมได้อย่างไรบ้าง ใช้เหตุผลและตัวอย่างเพื่อประกอบการอธิบาย

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APPENDIX B

HIGH SCHOOL MUSIC ACHIEVEME NT TEST (HMAT)

1

Name of student…………………………………………..
Name of music teacher…………………………………
Grade level ……………………………………………….
School ……………………………………………………..

High School Music Achievement Test
Based on Thai Basic Core Curriculum (2008)

A. Multiple Choices (20 points)

1. Name the following notes on the grand staff.

a.) Treble: B, D, F
   Bass: G, F, E

b.) Treble: B, D, F
   Bass: B, C, D

c.) Treble: D, F, A
   Bass: B, A, G

d.) Treble: B, D, F
   Bass: B, A, G

2. Name the following notes on the grand staff.

a.) Treble: G, E, A
   Bass: C, B, G

b.) Treble: G, E, A
   Bass: A, G, E

c.) Treble: E, C, F
   Bass: C, B, G

d.) Treble: E, C, F
   Bass: A, G, E

3. Indicate the correct name for the following scale.
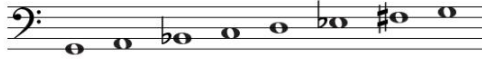
a.) B flat major

b.) G natural minor

c.) B flat harmonic minor

d.) G harmonic minor

4. Indicate the correct name for the following scale.

a.) G sharp melodic minor

b.) G sharp harmonic minor

c.) B natural minor

d.) B major

5. Transpose the given melodic fragment in C major into F major: F-G-A-B-D-C-E-D

a.) C-D-E-F-A-G-Bb-A

b.) C-D-E-F#-A-G-B-A

c.) Bb-C-D-E-A-F-G-A

d.) Bb-C-D-E-G-F-A-G

6. Transpose the given melodic fragment in G major into F major: B-A-G-C-D-E-F#-G

a.) A-G-F-Bb-C-D-E-F

b.) A-G-F-B#-C-D-E-F

c.) A-G-F-Bb-D-E-D-F

d.) A-G-F-B#-C-E-D-F

7. Identify the correct time signature of the following rhythmic fragment.

a.) 3/4

b.) 4/4

c.) 3/8

d.) 6/8

8. Identify the correct time signature of the following rhythmic fragment.

a.) 3/4

b.) 4/4

c.) 3/8

d.) 6/8

9. Identify the correct time signature of the following rhythmic fragment.

a.) 2/4

b.) 4/4

c.) 3/8

d.) 6/8

10. Identify the missing note to complete the given rhythmic fragment.

a.)

b.)

c.)

d.)
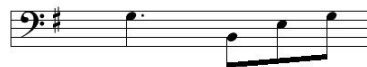
11. Identify the missing note to complete the given rhythmic fragment.
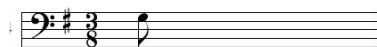
a.)

b.)

c.)

d.)

12. Identify the missing note to complete the given rhythmic fragment.

a.)

b.)

c.)

d.)

13. Identify the missing note to complete the given rhythmic fragment.
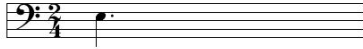
a.)

b.)

c.)

d.)

Use the following musical excerpt to answer question 14 - 16

14. What does the word "Presto" in the circle number 1 mean?

a.) Play slowly

b.) Play at a walking pace

c.) Play fast, quick, and bright

d.) Play very, very fast

15. What does "*p*" in the circle number 2 mean?

a.) Pause

b.) Play loud

c.) Play soft

d.) Play in a short duration

16. What does "*mf*" in the circle number 3 mean?

a.) Very soft

b.) Medium soft

c.) Medium loud

d.) Very loud

17. What is the correct name of this instrument?

a.) Bassoon   b.) Flute

c.) Clarinet   d.) Oboe

18. What is the correct name of this instrument?

a.) Saw Duang (ซอด้วง)

b.) Saw Sam Sai (ซอสามสาย)

c.) Jakey (จะเข้)

d.) Saw Oo (ซออู้)

19. What is the correct name of this instrument?

a.) Jakey (จะเข้)

b.) Tapone (ตะโพน)

c.) Ranat toom (ระนาดทุ้ม)

d.) Ranat ek (ระนาดเอก)

20. *"Pleng Tao"* (เพลงเถา) refers to_____

    a.) A musical piece performed at the beginning of a performances as an introduction

    b.) A musical composition used to describe characters' actions in performing arts.

    c.) A large-scale musical composition consists of three movements(slow-moderate-fast)

    d.) A large-scale musical composition consists of three movements(fast-moderate-slow)

B. Match the following items (5 points)

_____ 1. Overture

_____ 2. *Saw Duang* (ซอด้วง), *Jakey* (จะเข้), Harp

_____ 3. Ternary

_____ 4. Tuba

_____ 5. *Klui* (ขลุ่ย), flute, clarinet

a.) *Pleng Na Paat* (เพลงหน้าพาทย์)

b.) A B A C A

c.) *Pleng Hom Rong* (เพลงโหมโรง)

d.) String instruments

e.) An instrument with the highest register in the brass family

f.) A B A

g.) Woodwind instruments

h.) The largest and lowest-pitched instrument the brass family

C. True or false (5 points)

_____ 1. Strophic refers to a verse-repeating musical form where all verses are sung/played to the same melody.

_____ 2. *Pleng Tub* (เพลงตับ) is a musical composition used to describe characters' actions in performing arts.

_____ 3. *Jakey* (จะเข้) is a standard instrument in *Phi-pat* ensemble (วงปี่พาทย์) and *Mahori* ensemble (วงมโหรี).

_____ 4. Bassoon is a woodwind instrument in the double reed family.

_____ 5. *Mahori* ensemble (วงมโหรี) is an ensemble that combines instruments from *Phi-pat* ensemble (วงปี่พาทย์) and *Kruang sai* ensemble (วงเครื่องสาย) together.

D. Musical analysis (10 points)

Listen to and analyze Stephen Foster's "Beautiful Dreamer" (score is provided below). Answer the following questions in complete sentences. The length of answers should be approximately one to three sentences.

1.) What are the characteristics of the melody (pitches, range, shape)? (2 points) ....

....

....

2.) What is the main key area of the song? (Hint: key signature) (1 point) ....

....

3.) What is time signature of the song and what are the note values are used the most

to create the melody? (2 points) ....

....

....

4.) What are the musical markings used in this song? (2 points) ....

....

....

5.) What is the form of this song (binary, rounded binary, ternary, rondo, strophic) and

in what measure does each section of the form start? (you may indicate each section

with letter A, B, or C) (3 points) ....

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BEAUTIFUL DREAMER
(SERENADE)

Words and Music by
Stephen C. Foster

Moderato

Beau - ti - ful dream - er, wake un - to me,_____
Beau - ti - ful dream - er, out on the sea_____

Star - light and dew - drops are wait - ing for thee:_____
Mer - maids are chant - ing the wild lo - re - lei;_____

© 1862

2   Beautiful Dreamer

Sounds of the rude world heard in the day,_____
O - ver the stream - let va - pors are borne,_____

Lull'd by the moon - light have all pass'd a - way!_____
Wait - ing to fade at the bright com - ing morn._____

Beau - ti - ful dream - er, queen of my song,_____
Beau - ti - ful dream - er, beam on my heart,_____

Beautiful Dreamer

15

List while I woo thee with soft me-lo-dy;____
E'en as the morn on the stream-let and sea;____

17

Gone are the cares of life's bu-sy throng,____
Then will all clouds of sor-row de-part,____

19

Beau-ti-ful dream-er, a-wake un-to me!____
Beau-ti-ful dream-er, a-wake un-to me!____

4   Beautiful Dreamer

Beau - ti - ful dream - er   a - wake un - to   me!

Beau - ti - ful dream - er   a - wake un - to   me!

Ad Lib.

A tempo

E. <u>Independent essay (10 points)</u>

The length of essay should be approximately one to three paragraphs. Each paragraph should be clear, well organized, and directly addresses the question.

Describe the role of musicians in our society, essential qualities that make musicians successful, and how musicians can positively influence our society.

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ชื่อ นามสกุล ....
ครูผู้สอนวิชาดนตรี ....
ระดับชั้นเรียน ....
โรงเรียน ....

แบบทดสอบวัดผลสัมฤทธิ์ภาพวิชาดนตรี (มัธยมปลาย)
เนื้อหาตามหลักสูตรแกนกลางการศึกษาขั้นพื้นฐานพุทธศักราช 2551

<u>ข้อสอบปรนัยแบบเลือกตอบ 20 ข้อ</u>

1. จงบอกชื่อตัวโน้ตทั้งหมดบนกุญแจซอล (G clef) และกุญแจฟา (F clef)

    ก.   กุญแจซอล: B, D, F   ข.   กุญแจซอล: B, D, F
           กุญแจฟา: G, F, E   กุญแจฟา: B, C, D

    ค.   กุญแจซอล: D, F, A   ง.   กุญแจซอล: B, D, F
           กุญแจฟา: B, A, G   กุญแจฟา: B, A, G

2. จงบอกชื่อตัวโน้ตทั้งหมดบนกุญแจซอล (G clef) และกุญแจฟา (F clef)

    ก.   กุญแจซอล: G, E, A   ข.   กุญแจซอล: G, E, A
           กุญแจฟา: C, B, G   กุญแจฟา: A, G, E

    ค.   กุญแจซอล: E, C, F   ง.   กุญแจซอล: E, C, F
           กุญแจฟา: C, B, G   กุญแจฟา: A, G, E

3. จงบอกชื่อที่ถูกต้องของบันได (scale) เสียงต่อไปนี้
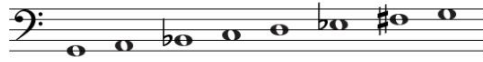
 ก. B แฟลตเมเจอร์
 ข. G เนเจอรัลไมเนอร์
 ค. B แฟลตฮาร์โมนิกไมเนอร์
 ง. G ฮาร์โมนิกไมเนอร์

4. จงบอกชื่อที่ถูกต้องของบันได (scale) เสียงต่อไปนี้
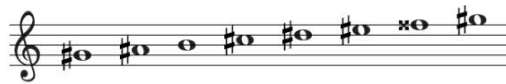
 ก. G ชาร์ปเมโลดิกไมเนอร์
 ข. G ชาร์ปฮาร์โมนิกไมเนอร์
 ค. B เนเจอรัลไมเนอร์
 ง. B เมเจอร์

5. จงเปลี่ยนคีย์ (transpose) ตัวโน้ตที่กำหนดให้จาก C เมเจอร์เป็น F เมเจอร์

F-G-A-B-D-C-E-D

 ก. C-D-E-F-A-G-Bb-A
 ข. C-D-E-F#-A-G-B-A
 ค. Bb-C-D-E-A-F-G-A
 ง. Bb-C-D-E-G-F-A-G

6. จงเปลี่ยนคีย์ (transpose) ตัวโน้ตที่กำหนดให้จาก G เมเจอร์เป็น F เมเจอร์

B-A-G-C-D-E-F#-G

 ก. A-G-F-Bb-C-D-E-F
 ข. A-G-F-B#-C-D-E-F
 ค. A-G-F-Bb-D-E-D-F
 ง. A-G-F-B#-C-E-D-F

7.   จงบอกเครื่องหมายกำหนดจังหวะ (time signature) ที่ถูกต้องของกลุ่มตัวโน้ตต่อไปนี้

ก. 3/4
ข. 4/4
ค. 3/8
ง. 6/8

8.   จงบอกเครื่องหมายกำหนดจังหวะ (time signature) ที่ถูกต้องของกลุ่มตัวโน้ตต่อไปนี้
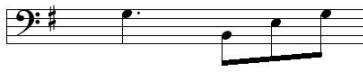
ก. 3/4
ข. 4/4
ค. 3/8
ง. 6/8

9.   จงบอกเครื่องหมายกำหนดจังหวะ (time signature) ที่ถูกต้องของกลุ่มตัวโน้ตต่อไปนี้

ก. 2/4
ข. 4/4
ค. 3/8
ง. 6/8

10.   จงเลือกตัวโน้ตที่ขาดหายไป เพื่อทำให้จังหวะสมบูรณ์ตามเครื่องหมายกำหนดจังหวะ (time signature) ที่กำหนดให้

ก.

ข.

ค.

ง.

11. จงเลือกตัวโน้ตที่ขาดหายไป เพื่อทำให้จังหวะสมบูรณ์ตามเครื่องหมายกำหนดจังหวะ (time signature) ที่กำหนดให้
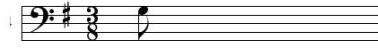
ก.

ข.

ค.

ง.

12. จงเลือกตัวโน้ตที่ขาดหายไป เพื่อทำให้จังหวะสมบูรณ์ตามเครื่องหมายกำหนดจังหวะ (time signature) ที่กำหนดให้

ก.

ข.

ค.

ง.

13. จงเลือกตัวโน้ตที่ขาดหายไป เพื่อทำให้จังหวะสมบูรณ์ตามเครื่องหมายกำหนดจังหวะ (time signature) ที่กำหนดให้
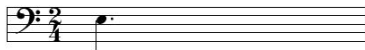
ก.

ข.

ค.

ง.

ใช้ตัวอย่างโน้ตเพลงต่อไปนี้เพื่อตอบคำถามข้อ 14 – 16

Violin Concerto in A minor
3rd Movement
A. Vivaldi

14. จงบอกความหมายที่ถูกต้องของคำว่า Presto ในวงกลมที่ 1
    ก. เล่นด้วยจังหวะช้า

    ข. เล่นด้วยความเร็วขนาดก้าวเดินไหลไปตามสบาย

    ค. เล่นด้วยจังหวะเร็ว สดใส

    ง. เล่นด้วยจังหวะเร็วมาก

15. จงบอกความหมายที่ถูกต้องของ "p" ในวงกลมที่ 2
    ก. หยุด

    ข. เล่นดัง

    ค. เล่นเบา

    ง. เล่นโน้ตให้สั้น แยกขาดอย่างชัดเจน

16. จงบอกความหมายที่ถูกต้องของ "mf" ในวงกลมที่ 2

    ก. เล่นเบามาก

    ข. เล่นเบาปานกลาง

    ค. เล่นดังปานกลาง

    ง. เล่นดังมาก

17. จงบอกชื่อที่ถูกต้องของเครื่องดนตรีในภาพนี้

ก. บาสซูน	ข. ฟลู้ต
ค. คลาริเนต	ง. โอโบ

18. จงบอกชื่อที่ถูกต้องของเครื่องดนตรีในภาพนี้

    ก. ซอด้วง

    ข. ซอสามสาย

    ค. จะเข้

    ง. ซออู้

19. จงบอกชื่อที่ถูกต้องของเครื่องดนตรีในภาพนี้

    ก. จะเข้

    ข. ตะโพน

    ค. ระนาดทุ้ม

    ง. ระนาดเอก

20. "เพลงเถา" หมายถึงเพลงประเภทใด

    ก. เพลงที่ใช้บรรเลงก่อนการแสดงโขน ละคร และพิธีกรรม ต่าง ๆ

    ข. ใช้บรรเลงประกอบอิริยบท อารมณ์ และการเปลี่ยนแปลงของตัวละคร หรืออัญเชิญฤาษีเทวดาและครูอาจารย์ให้มาร่วม

       ในพิธี ไหว้ครูหรือพิธีมงคลต่าง ๆ

    ค. เป็นเพลงที่มี อัตราจังหวะ สามชั้น สองชั้น และชั้นเดียว ในเพลงเดียวกัน

    ง. เป็นเพลงที่มี อัตราจังหวะ ชั้นเดียว สองชั้น และสามชั้น ในเพลงเดียวกัน

<u>ข้อสอบปรนัยแบบจับคู่ 5 ข้อ</u>

_____ 1. เพลงโอเวอร์เจอร์ (overture)

_____ 2. ซอด้วง, จะเข้, ฮาร์พ

_____ 3. เทอร์เนอรี (ternary)

_____ 4. ทูบา

_____ 5. ขลุ่ย, ฟลุ้ต, คลาริเน็ต

ก.) เพลงหน้าพาทย์

ข.) ฟอร์มเพลง A B A C A

ค.) เพลงโหมโรง

ง.) เครื่องดนตรีประเภทเครื่องสาย

จ.) เครื่องดนตรีที่มีเสียงสูงสุดในกลุ่มเครื่องลมทองเหลือง

ฉ.) ฟอร์มเพลง A B A

ช.) เครื่องดนตรีประเภทเครื่องลมไม้

ซ.) เครื่องดนตรีที่มีขนาดใหญ่ที่สุด เสียงต่ำที่สุด ในกลุ่มเครื่องลม
ทองเหลือง

<u>ข้อสอบปรนัยแบบถูก-ผิด 5 ข้อ ทำเครื่องหมายถูกหน้าประโยคที่เป็นความจริง และทำเครื่องหมายผิดหน้าประโยคที่ไม่เป็นความจริง</u>

_____ 1. สโตรฟิก (strophic) หมายถึงรูปแบบเพลงที่มีการย้อนทุกท่อนดนตรีด้วยทำนองเดิม

_____ 2. เพลงตับใช้บรรเลงประกอบอิริยบท อารมณ์ และการเปลี่ยนแปลงของตัวละคร หรืออัญเชิญฤาษีเทวดาและครูอาจารย์ให้
มาร่วมในพิธีไหว้ครูหรือพิธีมงคลต่าง ๆ

_____ 3. จะเข้เป็นเครื่องดนตรีมาตรฐานในวงปี่พาทย์และวงมโหรี

_____ 4. บาชูนเป็นเครื่องดนตรีประเภทเครื่องลมไม้ลิ้นคู่

_____ 5. วงมโหรีเป็นวงดนตรีที่รวมเครื่องดนตรีจากวงปี่พาทย์ และวงเครื่องสายเข้าด้วยกัน

<u>ข้อสอบปรนัยแบบคำตอบสั้น 5 ข้อ</u>

ฟังและวิเคราะห์เพลง "Beautiful Dreamer" โดยการตอบคำถามด้วยประโยคที่สมบูรณ์ โดยคำตอบควรมีความยาวสองถึงสามประโยคโดยประมาณ ใช้ตัวอย่างโน้ตเพลงเพื่อประกอบการวิเคราะห์

1. จงอธิบายลักษณะของทำนองเพลง ในแง่ระดับเสียง (pitch), ความกว้างของทำนอง (range), และ ลักษณะขึ้นลงของทำนอง (shape) (2 คะแนน) ....

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....

2. จงบอกชื่อคีย์ที่เป็นคีย์หลักของเพลง สังเกตได้จากเครื่องหมายประจำกุญแจเสียง หรือ key signature (1 คะแนน)

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3. จงบอกชื่อเครื่องหมายกำหนดจังหวะ (time signature) และชนิดของตัวโน้ตตามค่าจังหวะ (note value) ที่ใช้มากที่สุดในการสร้าง ทำนองเพลงนี้ (2 คะแนน) ....

....

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4. จงบอกชื่อเครื่องหมายระบุอัตราความช้า-เร็ว ความเข้มของเสียง ความดัง-เบาของเสียง และลักษณะการบรรเลง (musical markings) ที่ใช้ในเพลงนี้ (2 คะแนน)...

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5. จงบอกรูปแบบเพลง หรือ form (binary, rounded binary, ternary, rondo, strophic) ที่ใช้ในการแต่งเพลงนี้ โดยให้ระบุเลขห้องที่ เป็นจุดเปลี่ยนของแต่ละท่อนดนตรี เช่น A B A หรือ A B เป็นต้น (3 คะแนน) ....

....

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BEAUTIFUL DREAMER
(SERENADE)

Words and Music by
Stephen C. Foster

Moderato

Beau-ti-ful dream - er, wake un - to me,_____
Beau-ti-ful dream - er, out on the sea_____

Star - light and dew - drops are wait - ing for thee:_____
Mer - maids are chant - ing the wild lo - re - lei;_____

© 1862

2   Beautiful Dreamer

Sounds of the rude world heard in the day,_____
O - ver the stream - let va - pors are borne,_____

Lull'd by the moon-light have all pass'd a - way!_____
Wait - ing to fade at the bright com - ing morn._____

Beau - ti - ful dream - er, queen of my song,_____
Beau - ti - ful dream - er, beam on my heart,_____

Beautiful Dreamer

List while I woo thee with soft me - lo - dy; _____
E'en as the morn on the stream - let and sea; _____

Gone are the cares of life's bu - sy throng, _____
Then will all clouds of sor - row de - part, _____

Beau - ti - ful dream - er, a - wake un - to me! _____
Beau - ti - ful dream - er, a - wake un - to me! _____

4   Beautiful Dreamer

Beau - ti - ful dream - er   a - wake   un - to   me!
Beau - ti - ful dream - er   a - wake   un - to   me!

Ad Lib.

A tempo

เรียงความควรมีความยาวประมาณ 2-3 ย่อหน้า โดยแต่ละย่อหน้าควรมีเนื้อหาที่ชัดเจน เรียบเรียงให้เข้าใจง่าย และตอบตรง
ประเด็น โดยหัวข้อเรียงความคือ:

จงอธิบายบทบาทของนักดนตรีในสังคมไทย คุณสมบัติของนักดนตรีที่ประสบความสำเร็จ และ
อิทธิพลของนักดนตรีที่มีต่อสังคมไทย

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APPENDIX C

PILOT STUDY DATA (MIDDLE SCHOOL)

Participant	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Total		
1	1	1	0	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	1	0	14		
2	0	1	0	1	0	1	1	1	1	1	0	0	0	1	0	0	0	1	0	0	9		
3	1	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	8		
4	1	1	1	1	1	1	1	0	0	1	0	1	1	1	1	0	1	0	1	1	15		
5	0	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	5		
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	19	Items	20
7	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	4	Sum of item variances	4.41
8	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	1	0	1	0	0	8	Variance of total scores	12.99
9	0	1	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0	1	0	0	7	Alpha	0.70
10	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5		
11	1	1	1	1	1	1	1	0	0	0	0	1	1	1	0	0	0	1	0	0	11	Mean	9.30
12	1	1	1	0	1	1	0	0	0	1	0	0	1	0	1	0	1	0	0	1	10	Median	9
13	0	1	0	1	0	0	1	0	0	0	0	0	0	1	1	1	0	0	0	1	7	SD	3.69
14	1	1	1	0	1	0	0	1	0	1	0	1	1	1	1	1	1	0	0	1	13		
15	0	1	0	1	0	0	0	1	1	0	0	1	0	0	1	0	1	0	0	0	7		
16	0	1	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	1	0	1	7		
17	0	1	1	1	1	0	1	1	0	0	0	0	1	1	1	0	1	0	1	1	11		
18	1	1	0	1	0	0	1	0	0	0	0	1	0	1	0	1	1	1	1	1	10		
19	1	1	1	1	0	1	0	0	1	0	0	1	1	1	0	1	0	1	1	1	12		
20	1	1	1	1	1	0	1	0	0	0	1	1	0	1	1	0	0	0	0	0	10		
21	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	1	0	0	5		
22	1	1	0	1	0	1	1	0	0	0	0	1	1	0	0	1	1	1	1	1	11		
23	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	6		
Variances	0.23818526	0.0415879	0.24952741	0.24952741	0.23818526	0.24952741	0.23818526	0.24574669	0.24574669	0.1436673	0.17013233	0.17013233	0.24952741	0.24574669	0.24574669	0.24574669	0.24952741	0.2268431	0.23818526	0.2268431			

PILOT STUDY DATA (HIGH SCHOOL)

Participant	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Total	
1	1	1	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	6	
2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	1	16	
3	1	1	1	0	0	0	0	1	0	1	0	1	1	0	1	0	1	0	0	0	10	
4	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	1	0	0	0	1	14	
5	1	1	1	1	0	1	1	0	0	1	0	1	1	0	1	1	0	1	1	1	14	
6	1	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	1	1	0	1	16	Items
7	1	1	1	0	1	0	1	1	1	1	1	1	1	0	0	1	0	0	0	0	12	Sum of item variances
8	1	1	0	1	1	1	1	1	0	1	1	1	1	0	1	1	0	0	1	0	14	Variance of total scores
9	0	1	1	1	0	1	1	1	0	0	1	1	0	0	1	1	1	1	0	0	12	Alpha
10	1	1	0	0	0	0	1	0	0	0	0	0	1	0	1	1	1	1	0	0	8	
11	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	1	1	17	Mean
12	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	16	Median
13	1	1	1	1	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	9	SD
14	1	1	1	1	0	0	1	1	0	1	0	1	1	0	0	0	0	1	0	0	10	
15	1	1	1	1	0	1	1	0	0	1	0	1	0	0	1	1	0	0	0	1	11	
Variances	0.06222222	0	0.11555556	0.16	0.24888889	0.24	0.16	0.24	0.22222222	0.11555556	0.24888889	0.11555556	0.11555556	0.06222222	0.22222222	0.16	0.19555556	0.24888889	0.16	0.24		

APPENDIX E

IRB EXEMPTION DETERMINATION

UNIVERSITY OF MINNESOTA

Twin Cities Campus	*Human Research Protection Program* *Office of the Vice President for Research*	*Room 350-2* *McNamara Alumni Center* *200 Oak Street S.E.* *Minneapolis, MN 55455* *612-626-5654* *irb@umn.edu* *https://research.umn.edu/units/irb*

EXEMPTION DETERMINATION

September 16, 2019

Keitha Hamann

612-624-9819
haman011@umn.edu

Dear Keitha Hamann:

On 9/16/2019, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	Influential factors on Thai students' music achievement and perception toward school music learning
Investigator:	Keitha Hamann
IRB ID:	STUDY00007189
Sponsored Funding:	None
Grant ID/Con Number:	None
Internal UMN Funding:	None
Fund Management Outside University:	None
IND, IDE, or HDE:	None
Documents Reviewed with this Submission:	• Recruitment email_Thai&Eng_PDF.pdf, Category: Recruitment Materials; • Consent Form_QUAL_Thai&Eng_PDF.pdf, Category: Consent Form; • Student interview protocol_pim3_PDF.pdf, Category: Other; • HRP-580 - SOCIAL PROTOCOL (1.19.18 -)_pim-klh.docx, Category: IRB Protocol; • Music Student Demographic and Background Survey Questionnaire_PDF.pdf, Category: Other;

Driven to Discover℠

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	• Consent Form_QUAN_Thai&Eng_2_PDF.pdf, Category: Consent Form; • Consent Form_QUAL_Thai&Eng_2_PDF.pdf, Category: Consent Form; • HS test_PDF.pdf, Category: Other; • MS test_PDF.pdf, Category: Other;

The IRB determined that this study meets the criteria for exemption from IRB review. To arrive at this determination, the IRB used "WORKSHEET: Exemption (HRP-312)." If you have any questions about this determination, please review that Worksheet in the HRPP Toolkit Library and contact the IRB office if needed.

This study met the following category for exemption:

• (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices. (Both the procedures involve normal education practices and the objectives of the research involve normal educational practices)

Ongoing IRB review and approval for this study is not required; however, this determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities impact the exempt determination, please submit a Modification to the IRB for a determination.

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the HRPP Toolkit Library on the IRB website.

For grant certification purposes, you will need these dates and the Assurance of Compliance number which is FWA00000312 (Fairview Health Systems Research FWA00000325, Gillette Children's Specialty Healthcare FWA00004003).

Sincerely,

Cynthia McGill CIP
IRB Analyst

We strive to provide clear, consistent and timely service to maintain a culture of respect, beneficence and justice in research. Complete a brief survey about your experience.

PARENTAL CONSENT FORM (QUANTITATIVE)

Research Consent Form

Research title: The influential factors on Thai students' music achievement and perception toward school music learning

Researcher's contact information:

Faculty advisor: Dr. Keitha Hamann Phone Number: 612-6249819 (US number) Email Address: haman011@umn.edu	Student researcher: Pimpa Yungyuen Phone Number: 612-4422596 (US number) 081-8700899 (Thai number) Email Address: yunyu001@umn.edu

Key Information About This Research Study

       This study is a partial fulfillment of the requirements for the degree of Doctor of Philosophy at the University of Minnesota. The purpose of this study is to identify and understand the influential factors on Thai students' music achievement and perception toward school music learning, and also, to explore relationships between students' music achievement and possible influential factors, such as teachers' qualifications, school music curricula, students' background characteristics, and demographic characteristics, and students' life experience.

Why am I being invited to take part in this research study?

       I am asking your child to take part in this research study because your child is a middle school or high school student currently enrolled in music/music elective classes in the school.

How long will the research last?

       This consent form is for the quantitative phase of the study. The process of this phase includes 45-60 minutes (one school period) of completing music achievement test created by the researcher.

Is there any way that being in this study could be bad for me? Will being in this study help me in any way?

No foreseeable risk for the participants. Results of the achievement test will be a valuable contribution to the profession of music teaching. Moreover, the data provided in the research can potentially enhance the quality of school music teaching and learning.

<u>Detailed Information About This Research Study</u>

How many people will be studied?

Approximately 150 – 200 people are expected to participate in the quantitative phase of the study.

What happens if I say "Yes, I want to be in this research"?

Your child will be asked to complete a music achievement test based on the *Thai Basic Core Curriculum (2008)*. The test is divided into five parts: 1) multiple choices, 2) matching items, 3) true/false, 4) short questions and answers, and 5) short essay. Your child will also be asked to provide demographic and background information at the end of the test. The researcher will present on site to provide specific direction and answer questions test takers may have regarding the test. The process will be done in a classroom of your child's school. Once finished, the researcher will collect the test and the survey.

What happens if I say "Yes", but I change my mind later?

Your child can leave the research study at any time and there will be no consequence. If you decide for your child to leave the research study, contact the researcher.

What happens to the information collected for the research? + Data

Your child's identity will be kept confidential and known only to the researcher and the faculty advisor. Pseudonyms will be used in published materials. The name of schools will also be confidential. An exception to my promise of confidentiality is when I, in good faith, am required or permitted by law or policy to report evidence of child or vulnerable adult abuse or neglect. I will not ask anything about child or vulnerable adult abuse during the test process, but if by chance I am informed about child or vulnerable adult abuse or neglect, I may be required or permitted by law or policy to report to authorities.

Data

Data include test scores, demographic, and background questions. Data will be stored in Google Drive. Access restricted to the researcher and the faculty advisor. Hard copies will be stored in a locked office.

Whom do I contact if I have questions, concerns or feedback about my experience?

Principal researcher: Pimpa Yungyuen

Will I have a chance to provide feedback after the study is over?

Participants' parents/guardians can contact the principal researcher for further feedback.

Permission slip

My name is ……………………………………………, a parent/guardian of
    ข้าพเจ้า   ผู้ปกครองของ

(name of student) ……………………………………………………………….
    ชื่อนักเรียน

School ……………………………………………….………………………….
    โรงเรียน

Grade ………………………………………………………………………………
    ระดับชั้น

    ☐   I allow my child to take the music achievement test.
                อนุญาตให้นักเรียนทำแบบทดสอบวิชาดนตรีซึ่งเป็นส่วนหนึ่งของงานวิจัย

    ☐   I do not allow my child to take the music achievement test.
                ไม่อนุญาตให้นักเรียนทำแบบทดสอบวิชาดนตรี

_____   _____
Signature of the parent/guardian   Date
ลายเซ็นผู้ปกครอง   วันที่

_____
Printed Name of the parent/guardian
ชื่อตัวบรรจงของผู้ปกครอง

จดหมายอนุญาตให้เข้าร่วมเป็นส่วนหนึ่งของงานวิจัย (เชิงปริมาณ)

ชื่อเรื่อง: ปัจจัยที่มีผลกระทบต่อความสำเร็จทางการศึกษาวิชาดนตรี และการตระหนักรับรู้ถึงการเรียนวิชาดนตรีของเด็กนักเรียน
ข้อมูลติดต่อ:

Faculty advisor: Dr. Keitha Hamann Phone Number: 612-6249819 (US number) Email Address: haman011@umn.edu	Student researcher: น.ส. พิมพา ยั่งยืน Phone Number: 612-4422596 (US number) 081-8700899 (Thai number) Email Address: yunyu001@umn.edu

ข้อมูลเบื้องต้นเกี่ยวกับงานวิจัย

      งานวิจัยหรือวิทยานิพนธ์นี้ถือเป็นส่วนหนึ่งในข้อบังคับในการสำเร็จการศึกษาระดับปริญญาเอก ภาควิชาดนตรีศึกษาแห่ง มหาวิทยาลัยมินเนโซตา ประเทศสหรัฐอเมริกา จุดประสงค์หลักของงานวิจัยนี้คือเพื่อพิสูจน์และสร้างความเข้าใจเกี่ยวกับปัจจัยที่ส่งผล กระทบต่อการเรียนวิชาดนตรี และการตระหนักรับรู้ถึงการเรียนวิชาดนตรีในเด็กนักเรียนระดับชั้นมัธยมศึกษาเขตกรุงเทพมหานคร รวมถึงการศึกษาเกี่ยวความสัมพันธ์ระหว่างปัจจัยต่าง ๆ ที่อาจส่งผลต่อการเรียนวิชาดนตรี

เหตุผลที่นักเรียนได้รับเลือก

      นักเรียนที่ได้ถูกเลือกให้เข้าร่วมเป็นส่วนหนึ่งในงานวิจัยนี้คือนักเรียนระดับชั้นมัธยมต้นและมัธยมปลายของโรงเรียนรัฐบาล เอกชน และ นานาชาติ ที่กำลังศึกษาวิชาดนตรีในโรงเรียนของตน

ระยะเวลาของการเข้าร่วม

      ระยะเวลาในการเก็บข้อมูลเชิงปริมาณจะใช้เวลาทั้งสิ้น 45 ถึง 60 นาทีโดยประมาณ หรือไม่เกินหนึ่งคาบเรียน

ความเสี่ยงจากการเข้าร่วม

      จากการคาดการณ์ของผู้วิจัย ไม่มีความเสี่ยงใด ๆ เกิดขึ้นกับผู้เข้าร่วม และการเข้าร่วมครั้งนี้อาจยังส่งผลให้การเรียนการสอน วิชาดนตรีในโรงเรียนไทยพัฒนาไปในทางที่ดีขึ้น การเรียนการสอนมีคุณภาพดีขึ้น

รายละเอียดต่าง ๆ เกี่ยวกับงานวิจัย

จำนวนผู้เข้าร่วม

      ผู้วิจัยมีความคาดหวังว่าจะมีผู้เข้าร่วมในส่วนของกระบวนการวิจัยเชิงปริมาณทั้งสิ้น 150 ถึง 200 คน โดยประมาณ

<u>ขั้นตอนหลังการอนุญาต</u>

เมื่อได้รับอนุญาตแล้ว นักเรียนจะมีส่วนร่วมในการทำข้อสอบวิชาดนตรี ซึ่งเป็นข้อสอบที่ผู้วิจัยได้พัฒนามาจากหลักสูตร แกนกลางการศึกษาขั้นพื้นฐาน ปีพ.ศ. 2551 ของกระทรวงศึกษาธิการ โดยเนื้อหาข้อสอบถูกแบ่งออกเป็นห้าส่วน 1) ปรนัยแบบ เลือกตอบ 2) ปรนัยแบบจับคู่ 3) ปรนัยแบบถูก-ผิด 4) คำถาม-คำตอบสั้น 5) อัตนัยประเภทเรียงความสั้น นอกเหนือจากข้อสอบ นักเรียน จะต้องตอบคำถามข้อมูลพื้นฐานทางประชากรและภูมิหลังของตัวนักเรียนเองเพื่อใช้เป็นข้อมูลเบื้องต้นให้กับงานวิจัย ผู้วิจัยจะทำหน้าที่ คุมสอบ อธิบายคำสั่ง รวมถึงตอบคำถามทั้งหมดเกี่ยวกับข้อสอบ นักเรียนสามารถส่งข้อสอบได้ทันทีหลังจากทำเสร็จ

<u>กรณีที่มีการเปลี่ยนแปลงหลังจากเซ็นอนุญาต</u>

นักเรียนสามารถถอนตัวจากการเข้าร่วมได้ตลอดเวลาโดยจะไม่มีผลกระทบใด ๆ เกิดขึ้น

<u>การจัดการข้อมูลของนักเรียนผู้เข้าร่วม</u>

ข้อมูลพื้นฐานทางประชากรและภูมิหลังของตัวนักเรียนจะถูกเก็บเป็นความลับ ไม่มีการเผยแพร่ใด ๆ โดยผู้ที่สามารถใช้ข้อมูล ได้มีเพียงตัวผู้วิจัยและอาจารย์ที่ปรึกษาเท่านั้น หากจำเป็นต้องใช้ชื่อทางผู้วิจัยจะใช้นามแฝงโดยไม่มีการเปิดเผยตัวตนของนักเรียนแต่ อย่างใด ทั้งนี้ ข้อยกเว้นเดียวคือในกรณีที่ผู้วิจัยได้รับแจ้งเหตุเกี่ยวกับการข่มเหงหรือทารุณต่อเด็ก ซึ่งผู้วิจัยมีหน้าที่ต้องแจ้งเจ้าหน้าที่ที่ เกี่ยวข้อง ตามหลักจรรยาบรรณและข้อกฎหมาย

<u>การจัดเก็บข้อมูล</u>

ข้อมูลทั้งหมดจะถูกจัดเก็บในระบบ Google Drive โดยมีการจำกัดการเข้าใช้งานเพียงแค่สองบุคคลคือตัวผู้วิจัยและอาจารย์ ที่ปรึกษาเท่านั้น ในส่วนของเอกสารจะถูกจัดเก็บในห้องล็อค

<u>ติดต่อสอบถาม</u>

ผู้ปกครองสามารถติดต่อนางสาวพิมพา ยั่งยืน ซึ่งเป็นผู้วิจัยได้โดยตรงตามข้อมูลที่ให้ไว้ข้างต้น

งานวิจัยนี้ได้รับการตรวจสอบและอนุญาตจาก IRB ในสังกัด Human Research Protections Program (HRPP) ผู้เข้าร่วม สามารถสอบถามหรือให้ข้อมูลเพิ่มเติมโดยติดต่อโดยตรงได้กับทาง HRPP ที่ 612-625-1650 (US number) หรือทาง https://research.umn.edu/units/hrpp/research-participants/questions-concerns

กรุณาเซ็นใบอนุญาตที่ด้านล่างของแบบฟอร์มภาษาอังกฤษ

APPENDIX G

PUBLIC MIDDLE SCHOOL TEST SCORES

Student	Grade	Age	Gender	Nationality	Theory scores (33)	General Knowledge scores (7)	Social scores (10)	Total scores (50)		
A1	7	12	M	TH	6	0	0	6		
A2	7	14	M	TH	7	3	0	10		
A3	7	12	M	TH	9	2	2	13		
A4	7	14	M	TH	7	3	2	12		
A5	7	12	M	TH	8	3	3	14		
A6	7	13	M	TH	3	3	2	8		
A7	7	13	M	TH	6	4	2	12	Number of students	73
A8	7	13	M	TH	6	2	2	10	Mean total	23.7671233
A9	7	13	M	TH	4	4	2	10	SD total	9.44504654
A10	7	13	M	TH	6	5	2	13		
A11	7	13	M	TH	13	3	1	17	Mean theory	17.2191781
A12	7	13	M	TH	5	3	3	11	SD theory	8.03507342
A13	7	12	M	TH	9	3	5	17		
A14	9	13	M	TH	8	2	3	13	Mean general	4.30136986
A15	7	14	M	TH	5	4	3	12	SD general	1.43066546
A16	7	12	M	TH	8	6	1	15		
A17	7	12	M	TH	8	3	1	12	Mean social	2.24657534
A18	7	13	M	TH	5	4	4	13	SD social	1.4979692
A19	7	12	M	TH	6	3	1	10		
A20	7	13	M	TH	8	2	2	12		
A21	7	13	M	TH	5	4	1	10		
A22	7	12	M	TH	6	2	2	10		
B1	9	15	F	TH	29	7	7	43		
B2	8	13	M	TH	28	5	3	36		
B3	8	13	F	TH	20	6	4	30		
B4	8	14	F	TH	24	7	4	35		
B5	8	14	M	TH	16	4	1	21		
B6	9	14	M	TH	26	7	1	34		
B7	9	14	M	TH	25	3	1	29		
B8	9	14	M	TH	24	6	4	34		
B9	9	14	M	TH	27	5	2	34		
B10	9	16	F	TH	24	4	1	29		
B11	9	14	M	TH	21	5	1	27		
B12	9	14	F	TH	26	6	5	37		
B13	8	14	M	TH	28	5	2	35		
B14	8	14	M	TH	24	6	2	32		
B15	7	12	M	TH	19	3	1	23		
B16	7	13	M	TH	22	4	1	27		
B17	7	11	M	TH	12	4	0	16		
B18	7	13	F	TH	23	4	2	29		
B19	7	12	F	TH	18	5	4	27		
B20	7	12	F	TH	20	4	1	25		
B21	7	12	F	TH	26	4	2	32		
B22	7	12	F	TH	26	4	1	31		
B23	7	12	M	TH	20	5	1	26		
B24	7	13	M	TH	23	4	1	28		
B25	7	12	F	TH	20	4	2	26		
B26	7	13	M	TH	23	4	1	28		
B27	7	13	M	TH	15	4	1	20		
B28	9	15	M	TH	19	4	2	25		
B29	9	14	F	TH	27	6	7	40		
B30	9	14	M	TH	27	4	3	34		
B31	9	14	F	TH	27	6	3	36		
B32	7	12	F	TH	9	3	0	12		
B33	7	13	F	TH	20	4	1	25		
B34	9	14	M	TH	22	4	1	27		
D1	7	12	M	TH	25	5	2	32		
D2	7	13	M	TH	15	4	2	21		
D3	7	12	M	TH	22	6	4	32		
D4	9	14	F	TH	21	5	3	29		
D5	8	13	F	TH	26	6	2	34		
D6	7	12	M	TH	19	5	1	25		
D7	8	13	F	TH	18	6	4	28		
D8	8	14	F	TH	17	5	3	25		
D9	9	15	M	TH	19	4	6	29		
D10	9	14	M	TH	16	7	2	25		
D11	7	12	F	TH	27	6	3	36		
D12	9	14	M	TH	12	5	3	20		
D13	8	13	M	TH	23	2	3	28		
D14	9	14	M	TH	28	6	2	36		
D15	7	13	M	TH	22	6	2	30		
D16	9	14	F	TH	16	5	1	22		
D17	8	13	F	TH	23	3	4	30		

APPENDIX H

PRIVATE MIDDLE SCHOOL TEST SCORES

Student	Grade	Age	Gender	Nationality	Theory scores (33)	General Knowledge scores (7)	Social scores (10)	Total scores (50)			
C1	8	13	M	TH	21	4	1	26			
C2	8	14	M	TH	29	5	5	39			
C3	8	13	M	TH	9	4	4	17			
C4	8	14	M	TH	16	2	2	20			
C5	8	13	M	TH	10	5	2	17			
C6	8	13	M	TH	13	4	1	18			
C7	8	13	M	TH	20	5	2	27	Number of students	59	
C8	8	13	M	TH	22	6	1	29	Mean total	20.6101695	
C9	8	13	M	TH	23	5	1	29	SD total	8.32531857	
C10	8	14	M	TH	7	3	2	12			
C11	8	14	M	TH	6	6	2	14	Mean theory	13.2542373	
C12	8	14	M	TH	5	5	2	12	SD theory	7.66675137	
C13	8	13	M	TH	23	5	3	31			
C14	8	14	M	TH	22	6	2	30	Mean general	4.01694915	
C15	9	14	M	TH	12	5	2	19	SD general	1.42019335	
C16	9	15	M	TH	7	4	1	12			
C17	8	13	M	TH	25	5	2	32	Mean social	3.33898305	
C18	8	13	M	TH	23	5	2	30	SD social	1.85333036	
C19	7	12	M	TH	23	6	6	35			
C20	9	14	M	TH	14	3	1	18			
C21	8	13	M	TH	5	6	2	13			
C22	8	14	M	TH	29	5	3	37			
C23	8	14	M	TH	24	4	2	30			
C24	9	14	M	TH	28	5	2	35			
C25	9	14	M	TH	19	3	2	24			
C26	9	14	M	TH	24	6	4	34			
C27	8	14	M	TH	17	5	7	29			
C28	9	15	M	TH	25	7	3	35			
G1	9	15	F	TH	12	5	6	23			
G2	9	15	F	TH	4	4	8	16			
G3	9	14	F	TH	10	5	4	19			
G4	9	15	F	TH	8	5	3	16			
G5	9	14	F	TH	14	4	3	21			
G6	9	15	F	TH	6	4	4	14			
G7	9	15	F	TH	7	5	4	16			
G8	9	14	F	TH	9	4	2	15			
G9	9	14	F	TH	9	2	4	15			
G10	9	15	F	TH	4	4	4	12			
G11	9	14	F	TH	15	5	2	22			
G12	9	14	F	TH	15	3	5	23			
G13	9	15	F	TH	6	0	8	14			
G14	9	14	F	TH	9	5	4	18			
G15	9	15	F	TH	7	3	6	16			
G16	9	15	F	TH	27	4	5	36			
G17	9	15	F	TH	15	4	6	25			
G18	9	15	F	TH	9	3	4	16			
G19	9	15	F	TH	6	3	3	12			
G20	9	15	F	TH	7	3	7	17			
G21	9	14	F	TH	5	3	5	13			
G22	9	14	F	TH	9	0	4	13			
G23	9	14	F	TH	6	3	2	11			
G24	9	14	F	TH	8	3	3	14			
G25	9	14	F	TH	6	3	2	11			
G26	9	15	F	TH	3	3	1	7			
G27	9	14	F	TH	13	4	6	23			
G28	9	15	F	TH	9	2	5	16			
G29	9	15	F	TH	9	2	4	15			
G30	9	15	F	TH	8	2	2	12			
G31	9	15	F	TH	6	3	2	11			

APPENDIX I

INTERNATIONAL MIDDLE SCHOOL TEST SCORES

Student	Grade	Age	Gender	Nationality	Theory scores (33)	General Knowledge scores (7)	Social scores (10)	Total scores (50)		
E1	7	12	F		9	4	4	17		
E2	7	11	F	TH/SG	6	2	7	15		
E3	7	12	F	TH/SG	5	2	4	11		
E4	7	12	F	PH	13	3	4	20		
E5	7		M		20	4	3	27		
E6	7		M		5	1	3	9		
E7	7	12	M	TH	14	3	4	21	Number of students	41
E8	7	12	F	TH	6	3	0	9	Mean total	17.4878049
E9	7		F	TH	10	1	3	14	SD total	8.17349971
E10	7	12	F	PH	9	3	4	16		
E11	7	14	F	TH	3	3	3	9	Mean theory	11.3170732
E12	8	12	M	TH	23	4	9	36	SD theory	7.16393406
E13	8	12	M	TH	13	4	4	21		
E14	8	13	F	ID	5	4	4	13	Mean general	2.58536585
E15	8	13	F	TH/SE	2	2	3	7	SD general	1.34118622
E16	8	13	M	TH	25	4	2	31		
E17	8	13	F	TH	7	2	3	12	Mean social	3.58536585
E18	8	14	F	TH	7	2	2	11	SD social	1.70258054
E19	8	13	M	TH	13	3	2	18		
E20	8	13	M	PH	6	4	2	12		
E21	8	13	F	TH	5	3	4	12		
E22	8	13	M	CH	6	1	2	9		
E23	8	13	M	TH	3	4	4	11		
F1	6	11	F	PK	4	1	4	9		
F2	6	11	F	TH	31	2	4	37		
F3	6	12	F	TH	27	2	4	33		
F4	6	11	F	KR	17	0	4	21		
F5	6	12	F	TH	19	4	3	26		
F6	6	12	F	TH	14	4	2	20		
F7	6	12	F	KR	6	0	5	11		
F8	6	11	F	TH/CA	11	4	3	18		
F9	6	12	M	KR	8	3	3	14		
F10	7	13	F	TH	5	0	2	7		
F11	6	11	F	TH/UK	6	0	4	10		
F12	6	13	M	TH	11	1	5	17		
F13	6	11	M	TH	20	3	4	27		
F14	8	11	M	TH	16	3	6	25		
F15	6	12	M	TH	16	3	5	24		
F16	6	11	M	TH	7	2	2	11		
F17	6	12	M	TH	19	3	7	29		
F18	6	12	M	CH	12	5	0	17		

APPENDIX J

PUBLIC HIGH SCHOOL TEST SCORES

Student	Grade	Age	Gender	Nationality	Theory scores (26)	General Knowledge scores (14)	Social scores (10)	Total scores (50)			
A1	12	17	M	Thai	15	9	10	34			
A2	11	17	M	Thai	6	11	1	18			
A3	11	16	M	Thai	6	12	3	21			
A4	11	16	M	Thai	11	4	1	16			
A5	11	16	M	Thai	6	5	1	12			
A6	11	17	M	Thai	4	4	3	11			
A7	11	17	M	Thai	4	12	3	19		Number of students	51
A8	11	17	M	Thai	4	5	1	10		Mean total	24.6666667
A9	11	17	M	Thai	2	7	2	11		SD total	10.4492424
A10	11	17	M	Thai	1	4	0	5			
A11	11	18	M	Thai	5	7	1	13		Mean theory	12.8627451
A12	11	12	M	Thai	1	2	1	4		SD theory	7.10498306
A13	11	18	M	Thai	4	8	1	13			
A14	11		M	Thai	4	4	0	8		Mean general	8.78431373
A15	11	17	M	Thai	0	2	1	3		SD general	2.8866155
A16	11	16	M	Thai	4	5	1	10			
A17	11	16	M	Thai	6	11	2	19		Mean social	3.01960784
A18	11	17	M	Thai	4	11	2	17		SD social	2.26707032
A19	11	18	M	Thai	10	11	4	25			
B1	10	17	M	Thai	11	8	1	20			
B2	10	15	M	Thai	18	9	4	31			
B3	10	15	M	Thai	21	12	5	38			
B4	10	16	M	Thai	18	7	4	29			
B5	10	15	F	Thai	18	10	6	34			
B6	10	15	F	Thai	15	12	1	28			
B7	10	15	F	Thai	14	5	1	20			
B8	10	15	F	Thai	8	8	1	17			
B9	10	15	M	Thai	19	9	1	29			
B10	10	17	M	Thai	18	11	1	30			
B11	10	15	M	Thai	19	13	0	32			
B12	11	16	M	Thai	20	8	2	30			
B13	11	16	M	Thai	20	10	3	33			
B14	11	16	M	Thai	20	10	5	35			
B15	11	16	F	Thai-US	20	10	6	36			
B16	10	16	M	Thai	16	9	1	26			
B17	10	16	M	Thai	17	10	4	31			
B18	10	15	M	Thai	22	9	2	33			
B19	10	15	M	Thai	18	10	3	31			
B20	11	16	M	Thai	22	12	6	40			
B21	11	17	F	Thai	21	10	3	34			
B22	10	15	F	Thai	19	10	3	32			
D1	11	17	F	Thai	24	11	7	42			
D2	10	15	M	Thai	18	13	6	37			
D3	11	16	M	Thai	19	11	6	36			
D4	10	15	F	Thai	8	8	4	20			
D5	11	17	F	Thai	15	12	4	31			
D6	11	17	F	Thai	11	8	4	23			
D7	12	18	M	Thai	16	7	7	30			
D8	11	16	F	Thai	14	12	7	33			
D9	11	17	F	Thai	19	11	5	35			
D10	12	17	M	Thai	21	9	3	33			

APPENDIX K

PRIVATE HIGH SCHOOL TEST SCORES

Student	Grade	Age	Gender	Nationality	Theory scores (26)	General Knowledge scores (14)	Social scores (10)	Total scores (50)		
C1	11	17	M	Thai	3	11	3	17		
C2	11	17	M	Thai	19	9	3	31		
C3	11	17	M	Thai	15	8	4	27		
C4	11	16	M	Thai	17	11	5	33		
C5	10	15	M	Thai	4	12	3	19		
C6	10	16	M	Thai	13	12	6	31	Number of students	46
C7	10	16	M	Thai	12	9	2	23	Mean total	20.1956522
C8	11	16	M	Thai	1	10	2	13	SD total	5.85612525
C9	11	17	M	Thai	13	10	3	26		
C10	11	17	M	TH-US	3	6	2	11	Mean theory	8.58695652
C11	11	16	M	Thai	6	12	4	22	SD theory	4.64076664
C12	10	15	M	Thai	8	10	2	20		
C13	10	16	M	Thai	19	9	7	35	Mean general	7.91304348
C14	11	16	M	Thai	14	9	2	25	SD general	2.57186562
C15	10	15	M	Thai	11	12	1	24		
C16	10	15	M	Thai	10	13	2	25	Mean social	3.69565217
C17	10	15	M	Thai	12	7	2	21	SD social	1.42781208
C18	10	16	M	Thai	13	11	1	25		
G1	10	15	F	TH	14	5	4	23		
G2	10	15	F	TH	4	0	6	10		
G3	10	16	F	TH	4	5	5	14		
G4	10	16	F	TH	4	6	3	13		
G5	10	15	F	TH	10	6	4	20		
G6	10	16	F	TH	7	9	3	19		
G7	10	15	F	TH	2	7	4	13		
G8	10	16	F	TH	2	4	4	10		
G9	10	15	F	TH	7	9	4	20		
G10	10	15	F	TH	6	5	4	15		
G11	10	16	F	TH	6	6	4	16		
G12	10	16	F	TH	4	9	4	17		
G13	10	15	F	TH	5	7	3	15		
G14	10	16	F	TH	6	6	3	15		
G15	10	15	F	TH	7	9	3	19		
G16	10	15	F	TH	11	8	3	22		
G17	10	16	F	TH	9	7	4	20		
G18	10	16	F	TH	5	7	6	18		
G19	10	15	F	TH	8	6	4	18		
G20	10	15	F	TH/KR	11	6	6	23		
G21	10	15	F	TH	11	5	4	20		
G22	10	15	F	TH	3	7	5	15		
G23	10	16	F	TH	7	9	3	19		
G24	10	15	F	TH	5	7	3	15		
G25	10	15	F	TH	14	6	5	25		
G26	10	16	F	TH	10	7	4	21		
G27	10	16	F	TH	7	9	4	20		
G28	10	15	F	TH	13	6	7	26		

APPENDIX L

INTERNATIONAL HIGH SCHOOL TEST SCORES

Student	Grade	Age	Gender	Nationality	Theory scores (26)	General Knowledge scores (14)	Social scores (10)	Total scores (50)		
E1	12	18	F	PH	13	7	9	29		
E2	12	17	F	TH	13	9	6	28		
E3	12	17	F	TH	8	4	7	19		
E4	12	16	M	TH	9	10	6	25		
E5	12	18	M	TH	10	7	7	24		
E6	11	16	M	TH	7	8	6	21		
E7	10	15	M	TH	11	0	5	16	Number of students	40
E8	12	18	F	TH	16	7	5	28	Mean total	25.075
E9	9	14	M	TH/FR	3	7	6	16	SD total	6.95549036
E10	10	15	M	KR	18	9	8	35		
E11	10	15	M	TH/JP	22	6	8	36	Mean theory	12.05
E12	10	15	M	TH	15	8	6	29	SD theory	5.04822894
E13	9	15	F	PH	7	6	5	18		
E14	12	18	M	TH	21	9	8	38	Mean general	6.8
E15	10	15	F	TH	8	5	5	18	SD general	2.20953644
E16	10	15	F	TH	13	7	5	25		
E17	10	16	F	TH	12	5	5	22	Mean social	6.225
E18	10	15	M	TH/TW	17	7	6	30	SD social	1.71699648
E19	10	15	M	TH	9	6	5	20		
E20	10	15	F	TH	8	5	5	18		
E21	10	16	M	TH	14	8	2	24		
E22	10	14	F	TH	9	10	6	25		
E23	9		F	TH	10	8	4	22		
E24	9	14	F	PH	9	5	5	19		
E25	10	14	M	TH	20	7	8	35		
E26	10	16	M	TH	12	8	6	26		
E27	10	14	F	TH	8	3	4	15		
E28	10	15	F	TH	14	3	4	21		
F1	11	17	F	KR	21	8	10	39		
F2	9	16	M	KR	4	4	7	15		
F3	10	14	F	TH	5	7	5	17		
F4	9	14	F	TH	8	5	6	19		
F5	9	14	F	TH	20	9	8	37		
F6	10	16	M	TH/USA	21	4	10	35		
F7	11	17	F	TH/IT	9	6	7	22		
F8	10	15	F	TH	7	9	6	22		
F9	10	16	F	TH	14	9	6	29		
F10	10	15	M	TH/UK	15	9	8	32		
F11	9	15	M	TH	13	9	9	31		
F12	9	14	M	KR	9	9	5	23		

APPENDIX M

STUDENT DEMOGRAPHIC AND BACKGROUND SURVEY QUESTIONNAIRE

Music Student Demographic and Background Survey Questionnaire

Please tell me a little bit about yourself. Your name and information will be kept confidential.

1.   Name……………………………………………… Last name …………………………………………………………

2.   School ……….

      How long have you studied in this school? ……………………………………………………………………

3.   Grade level …….

4.   Age ……….

5.   Gender   ☐   Male   ☐   Female

6.   Nationality ……….

7.   Name of your current music teacher ………………………………………………………………………………….

      How long have you been studying with this teacher? ………………………………………………………

8.   Would you be interested in participating in an interview about school music learning? Your

thoughts and opinions are valuable and can potentially enhance the quality of school music learning in the

future. The interview will be conducted at your school and should take approximately 30 minutes. There

will be a small incentive (reward) provided for you as a token of appreciation.

                        ☐ Yes, I am interested in participating.

                                If yes, please provide your contact information.

Email ……………………………………………………. Phone number ………………………………………………………...

Facebook ……………………………………………………… Instagram …………………………………………………............

                        ☐ No, I am not interested in participating.

                        Thank you very much for your time☺

แบบสอบถาม

นักเรียนเล่าเรื่องเกี่ยวกับตัวเองให้ครูพิมฟังหน่อยนะคะ ข้อมูลทุกอย่างจะถูกเก็บเป็นความลับ ไม่ถูกเปิดเผยที่ไหนทั้งสิ้นค่ะ

1. ชื่อ.. นามสกุล..

2. โรงเรียน..

      เรียนโรงเรียนนี้มาเป็นเวลา..ปี

3. ระดับชั้น ....

4. อายุ ....

5. เพศ   ☐   ชาย   ☐   หญิง

6. สัญชาติ ....

7. ชื่อคุณครูผู้สอนวิชาดนตรี ....

      เรียนกับคุณครูท่านนี้มาเป็นเวลา...ปี

8. นักเรียนสนใจจะให้สัมภาษณ์เกี่ยวกับการเรียนวิชาดนตรี และประสบการณ์การร่วมกิจกรรมดนตรีในโรงเรียนไหมคะ? ความคิดเห็น

ของนักเรียนอาจมีส่วนช่วยให้การเรียนการสอนวิชาดนตรีเป็นไปอย่างมีประสิทธิภาพมากขึ้น การสัมภาษณ์ใช้เวลาประมาณ 30 นาที

และสามารถทำได้ที่โรงเรียน ครูพิมจะมีของขวัญตอบแทนเล็กน้อยให้สำหรับนักเรียนที่เข้าร่วมค่ะ

                ☐   สนใจเข้าร่วม
                     หากสนใจเข้าร่วมนักเรียนช่วยกรอกข้อมูลติดต่อกลับด้วยนะคะ

อีเมล .... เบอร์โทร..

Facebook .... Instagram ....

        ☐ ไม่สนใจเข้าร่วม

ขอบคุณค่ะ ☺

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STUDENT INTERVIEW PROTOCOL

Interview protocol (student)
Semi-structured interview

1.   What school do you attend?
2.   What year are you in school?
3.   How would you like to be called? Any pseudonym would you prefer?
4.   How would you describe your school? (school culture, school atmosphere)
5.   I am going to ask about the music achievement test that you took. Overall, what do you think? Is it difficult or easy?
6.   Are you familiar with the topics on the test?
7.   Let's talk about your music class. Tell me about it? What are you learning right now?
8.   Do you get to learn about those topics on the test in your music class?
9.   How is your time in music class typically used or spent? Do you typically follow a certain schedule or set of activities?
10.   Of all the activities you mentioned, which one is your favorite? Why?
11.   How do you feel about school music classes?
12.   Tell me a little bit about your teacher. How would you describe him/her?
13.   In your opinion, how much experience do you think your music teacher has?
14.   Are you involved in other musical activities outside of school?
15.   Are your parents/gradians supportive of music learning – both inside and outside of school?
16.   What are the factors that, you believe, affect your music achievement?

TEACHER INTERVIEW PROTOCOL

Interview protocol (teacher)
Semi-structured interview

1.   Name and last mane in English
2.   Could you please introduce yourself a little bit? What grade levels do you teach? How long have you been teaching here?
3.   Please describe your school (school size, student population, student characteristics, strengths, and weaknesses).
4.   How much is the tuition fee here?
5.   Please describe music program here (resources, facilities, budget, musical activities).
6.   Of all musical activities you have, which one is the most successful and why?
7.   What curriculum do you implement? What is your opinion on it? How much do you need to adapt?
8.   Could you please explain the process of annual music budget?
9.   How satisfied are you with the current situation of music program?
10.   Why do you think music is important to students?

PARENTAL CONSENT FORM (QUALITATIVE)

Research Consent Form

Research title: The influential factors on Thai students' music achievement and perception toward school music learning

Researcher's contact information:

Faculty advisor: Dr. Keitha Hamann Phone Number: 612-6249819 (US number) Email Address: haman011@umn.edu	Student researcher: Pimpa Yungyuen Phone Number: 612-4422596 (US number) 081-8700899 (Thai number) Email Address: yunyu001@umn.edu

Key Information About This Research Study

This study is a partial fulfillment of the requirements for the degree of Doctor of Philosophy at the University of Minnesota. The purpose of this study is to identify and understand the influential factors on Thai students' music achievement and perception toward school music learning, and also, to explore relationships between students' music achievement and possible influential factors, such as teachers' qualifications, school music curricula, students' background characteristics, and demographic characteristics, and students' life experience.

Why am I being invited to take part in this research study?

I am asking your child to take part in this research study because your child is a middle school or high school student currently enrolled in music/music elective classes in the school and already participated in the quantitative phase of the study (the music achievement test).

How long will the research last?

This consent form is for the qualitative phase of the study. The process of this phase includes an individual, 30-minute interview by the researcher.

Is there any way that being in this study could be bad for me? Will being in this study help me in any way?

No foreseeable risk for the participants. Data from an interview will be a valuable contribution to the profession of music teaching. Moreover, the data provided in the research can potentially enhance the quality of school music teaching and learning.

<u>Detailed Information About This Research Study</u>

How many people will be studied?

Approximately 10 people are expected to participate in the qualitative phase of the study.

What happens if I say "Yes, I want to be in this research"?

Your child will be interviewed by the researcher. Interview questions focus on your child's perception of the achievement test; perception of school music learning, perception of school music teachers, in-school factors that contribute to their music achievement, and out-of-school factors that contribute to their music achievement. The interview will be conducted in school and should take approximately 30 minutes.

What happens if I say "Yes", but I change my mind later?

Your child can leave the research study at any time and there will be no consequence. If you decide for your child to leave the research study, contact the researcher.

What happens to the information collected for the research? + Data

Your child's identity will be kept confidential and known only to the researcher and the faculty advisor. Pseudonyms will be used in published materials. The name of schools will also be confidential. An exception to my promise of confidentiality is when I, in good faith, am required or permitted by law or policy to report evidence of child or vulnerable adult abuse or neglect. I will not ask anything about child or vulnerable adult abuse during the interview process, but if by chance I am informed about child or vulnerable adult abuse or neglect, I may be required or permitted by law or policy to report to authorities.

Data
Data include interview transcript and sound recording. Data will be stored in Google drive. Access restricted to the researcher and the faculty advisor. Hard copies will be stored in a locked office.

Whom do I contact if I have questions, concerns or feedback about my experience?

Principal researcher: Pimpa Yungyuen

Will I have a chance to provide feedback after the study is over?

Participants' parents/guardians can contact the principal researcher for further feedback.

Permission slip

My name is ……………………………………………., a parent/guardian of
ข้าพเจ้า   ผู้ปกครองของ

(name of student) ………………………………………………………….
ชื่อนักเรียน

School …………………………………………….…………………….
โรงเรียน

Grade …………………………………………………………………………
ระดับชั้น

☐ I allow my child to participate in an individual interview.
   อนุญาตให้สัมภาษณ์นักเรียน

☐ I do not allow my child to participate in an individual interview.
   ไม่อนุญาตให้สัมภาษณ์นักเรียน

_____ _____

Signature of the parent/guardian   Date
ลายเซ็นผู้ปกครอง   วันที่

_____

Printed Name of the parent/guardian
ชื่อตัวบรรจงของผู้ปกครอง

จดหมายอนุญาตให้เข้าร่วมเป็นส่วนหนึ่งของงานวิจัย (เชิงคุณภาพ)

ชื่อเรื่อง: ปัจจัยที่มีผลกระทบต่อความสำเร็จทางการศึกษาวิชาดนตรี และการตระหนักรับรู้ถึงการเรียนวิชาดนตรีของเด็กนักเรียน

ข้อมูลติดต่อ:

Faculty advisor: Dr. Keitha Hamann Phone Number: 612-6249819 (US number) Email Address: haman011@umn.edu	Student researcher: น.ส. พิมพา ยั่งยืน Phone Number: 612-4422596 (US number) 081-8700899 (Thai number) Email Address: yunyu001@umn.edu

ข้อมูลเบื้องต้นเกี่ยวกับงานวิจัย

      งานวิจัยหรือวิทยานิพนธ์นี้ถือเป็นส่วนหนึ่งในข้อบังคับในการสำเร็จการศึกษาระดับปริญญาเอก ภาควิชาดนตรีศึกษาแห่ง มหาวิทยาลัยมิเนโซตา ประเทศสหรัฐอเมริกา จุดประสงค์หลักของงานวิจัยนี้คือเพื่อพิสูจน์และสร้างความเข้าใจเกี่ยวกับปัจจัยที่ส่งผล กระทบต่อการเรียนวิชาดนตรี และการตระหนักรับรู้ถึงการเรียนวิชาดนตรีในเด็กนักเรียนระดับชั้นมัธยมศึกษาเขตกรุงเทพมหานคร รวมถึงการศึกษาเกี่ยวความสัมพันธ์ระหว่างปัจจัยต่าง ๆ ที่อาจส่งผลต่อการเรียนวิชาดนตรี

เหตุผลที่นักเรียนได้รับเลือก

      นักเรียนที่ได้ถูกเลือกให้เข้าร่วมเป็นส่วนหนึ่งในงานวิจัยนี้คือนักเรียนระดับชั้นมัธยมต้นและมัธยมปลายของโรงเรียนรัฐบาล เอกชน และ นานาชาติ ที่กำลังศึกษาวิชาดนตรีในโรงเรียน และได้มีส่วนร่วมในการทำข้อสอบวิชาดนตรีซึ่งเป็นส่วนหนึ่งของงานวิจัยเชิง ปริมาณแล้ว

ระยะเวลาของการเข้าร่วม

      ระยะเวลาในการเก็บข้อมูลเชิงคุณภาพจะใช้เวลาทั้งสิ้นประมาณ 30 นาทีในการสัมภาษณ์

ความเสี่ยงจากการเข้าร่วม

      จากการคาดการณ์ของผู้วิจัย ไม่มีความเสี่ยงใด ๆ เกิดขึ้นกับผู้เข้าร่วม และการเข้าร่วมครั้งนี้อาจยังส่งผลให้การเรียนการสอน วิชาดนตรีในโรงเรียนไทยพัฒนาไปในทางที่ดีขึ้น การเรียนการสอนมีคุณภาพดีขึ้น

รายละเอียดต่าง ๆ เกี่ยวกับงานวิจัย

จำนวนผู้เข้าร่วม

      ผู้วิจัยมีความคาดหวังว่าจะมีผู้เข้าร่วมในส่วนของกระบวนการวิจัยเชิงปริมาณทั้งสิ้น 10 คนโดยประมาณ

<u>ขั้นตอนหลังการอนุญาต</u>

เมื่อได้รับอนุญาตแล้ว นักเรียนจะมีส่วนร่วมในการให้สัมภาษณ์ตัวต่อตัวกับทางผู้วิจัย โดยคำถามจะเน้นเกี่ยวกับการตระหนักรับรู้ถึงการเรียนการสอนวิชาดนตรีในโรงเรียน ความคิดเห็นเกี่ยวกับตัวข้อสอบ ปัจจัยภายนอกและภายในโรงเรียนที่มีผลต่อความสำเร็จใจการเรียนวิชาดนตรีของตัวนักเรียนเอง โดยการมภาษณ์จะมีขึ้นที่โรงเรียนของตัวนักเรียนที่เป็นผู้ถูกสัมภาษณ์

<u>กรณีที่มีการเปลี่ยนแปลงหลังจากเซ็นอนุญาต</u>

นักเรียนสามารถถอนตัวจากการเข้าร่วมได้ตลอดเวลาโดยจะไม่มีผลกระทบใด ๆ เกิดขึ้น

<u>การจัดการข้อมูลของนักเรียนผู้เข้าร่วม</u>

ข้อมูลพื้นฐานทางประชากรและภูมิหลังของตัวนักเรียนจะถูกเก็บเป็นความลับ ไม่มีการเผยแพร่ใด ๆ โดยผู้ที่สามารถใช้ข้อมูลได้มีเพียงตัวผู้วิจัยและอาจารย์ที่ปรึกษาเท่านั้น หากจำเป็นต้องใช้ชื่อทางผู้วิจัยจะใช้นามแฝงโดยไม่มีการเปิดเผยตัวตนของนักเรียนแต่อย่างใด ทั้งนี้ ข้อยกเว้นเดียวคือในกรณีที่ผู้วิจัยได้รับแจ้งเหตุเกี่ยวกับการข่มเหงหรือทารุณต่อเด็ก ซึ่งผู้วิจัยมีหน้าที่ต้องแจ้งเจ้าหน้าที่ที่เกี่ยวข้อง ตามหลักจรรยาบรรณและข้อกฎหมาย

<u>การจัดเก็บข้อมูล</u>

ข้อมูลทั้งหมดจะถูกจัดเก็บในระบบ Google Drive โดยมีการจำกัดการเข้าใช้งานเพียงแค่สองบุคคลคือตัวผู้วิจัยและอาจารย์ที่ปรึกษาเท่านั้น ในส่วนของเอกสารจะถูกจัดเก็บในห้องล็อค

<u>ติดต่อสอบถาม</u>

ผู้ปกครองสามารถติดต่อนางสาวพิมพา ยั่งยืน ซึ่งเป็นผู้วิจัยได้โดยตรงตามข้อมูลที่ให้ไว้ข้างต้น

งานวิจัยนี้ได้รับการตรวจสอบและอนุญาตจาก IRB ในสังกัด Human Research Protections Program (HRPP) ผู้เข้าร่วมสามารถสอบถามหรือให้ข้อมูลเพิ่มเติมโดยติดต่อโดยตรงได้กับทาง HRPP ที่ 612-625-1650 (US number) หรือทาง
https://research.umn.edu/units/hrpp/research-participants/questions-concerns

*กรุณาเซ็นใบอนุญาตที่ด้านล่างของแบบฟอร์มภาษาอังกฤษ

APPENDIX Q

CODEBOOK

Code	Description	Case	Counts
Teacher's background	Teacher's work and educational backgrounds prior to the current position	SG, KM, MP, KT, Moo, BEBOP	8
Curricula	Issues relating to music curricula, e.g., structure, content, quality	SG, KM, MP, KT, Moo, MOMO, BOSS, NT, NER	33
School size	Referse to the toal number of students attending the school, which determined the size of the school (small, mediam, large, extra-large)	SG,KM, MP, Moo, BOSS, NT, NER	13
Impact of school size	An effect of school size on variables such as relationship, school cultre,or teaching outcome, feelings (both positive and negative)	SG, MP, NOT, NT, NER	8
Relationship	Relationship between S-T, S-S, and T-T	SG, KM, NOT, BEBOP, MOMO, BOSS, NT	13
Students' charactersitics	Outstanding features or qualities of students in a particular school	SG, KM, MP, KT, Moo, NOT, BEBOP, MOMO, NT, NER	20
Tuition fee	Per semester, Low vs. high	SG,KM, MP, KT, Moo	5
Privileged	Refers to students who come from high SES families, can efford to pay high tuition fee, and extra curricular activities, private lessons	SG, KT, Moo, NOT, BEBOP, NT, NER	11
Students' value	What students perceive as important or worthy	SG, NOT	2
Students' believe	The assumptions embeded in what students value	NOT, BEBOP, MOMO, NT	4
Students' attitude	The way that students think or feel about themselves, other people, or concepts	Moo, NOT, BEBOP, MOMO, BOSS, NT, NER	33
Students' perception	The way students understand or intepret something (school music, out-of-school music, teacher)	SG, NOT, BEBOP, MOMO, BOSS, NT, NER	27
Family value	What parents perceive as important or worthy	Moo, BOSS, NT	3
Family influence	Parents' ability to effect on their children's choices or behavior	KT, MOMO, NER	
Family support	Refers to academic or money support that students receive from their parents - Good, OK, or poor	NOT, BEBOP, MOMO, BOSS, NT, NER	12
School emphasis	Strengths and weaknesses of the school or particular programs that the school chooses to enhance/not enhance	SG, KM, MP, KT, Moo, NOT, BEBOP, MOMO, NT, NER	
School culture	A set of beliefs, values, or assumptions that the students and teachers share	SG, KM, MP, Moo, BEBOP, BOSS, NT	13
Teacher's value	What teachers perceive as important or worthy	SG, KT	4
Teacher's believe	The assumptions embeded in what teachers value	SG, KM, KT, Moo, MOMO	6
Teacher's attitude	The way that teachers think or feel about themselves, other people, or concepts	SG, KM, MP, KT, Moo	11
Budget	The amount of money allowed by the school to spend of expenses relation to music pragram	SG, KM, MP, KT, Moo	15
Music facilities/resource	Equipment and places dedicated to music program	SG, KM, MP, KT, Moo, NOT, BEBOP, BOSS, NT	15
School support	Refers to academic or money support that music teachers receive from their schools - Good, OK, or poor	SG, MP, KT, Moo, NT	10
Musical activities	Student activities that involved in music - in school vs. off out-of-school, collaboration vs. competition, curricular vs. extracurricular	SG, KM, MP, KT, Moo, NOT, BEBOP, MOMO, BOSS, NT, NERK	48
Adaptation/what works	Refers to teachers' ability to modify or adjust things to fit their students' needs (curriculum, pedagogy, repertoire)	SG, KM, KT, Moo, MOMO	16
Teacher's experience	Teachers' prior skills or knowledge that give his/her advanges in the field	KP, KT, Moo	6
Repertoire	A collection of musical pieces selected for or by students - Commercial vs. Classical (relate to students' perception and teachers' adaptation	SG, NT	7
Impovement	Improvement of music program overtime	Moo	1
Priority/prioritize	Things that are treated as more important (relate to budget, curracula, and musical activities)	SG, MP, KT, Moo, NOT, MOMO	9
Good but more is better	A phrase often heard from music teachers, usually involved with time or money	SG	2
Music program overview	Strengths and weaknesses of the music program as percieved by the teacher or student	SG, KM, MP, Moo, NOT, BEBOP	13
Obstibles/challenges	Problems or difficulties that prevent progress	KM, KT, Moo	4
"Not gonna sacrefice performance" (p	Stated by a music teacher who believes that music practical is more important than music theory	SG, MP	2
Significance of music	The impact or influence of music on students	SG, KM, MP, KT, Moo, MOMO	17
"Built in music" (significance of music	Refers to skills (beyond musical skills) that students develop through music class	SG, MP, KT	7
Parent&alumni support	Refers to financial support by the parent and alumni association	KM, MP, KT, Moo	4
Policy-school (obstables/challenges)	A course of action proposted by the school	SG, KM, MP, KT, Moo	9
Policy-government (obstables/challen	A course of action proposted by Thai government	KM, MP, KT	5
Ensemble	Curricular vs. extracurricular, commersial vs. classical	SM, KT, NOT, NT,NER	5
Gifted program	A special program for students with outstanding abilities in particular fields	KT	1
Extra program	A special program offered by the school that students need to pay extra fee to join	KM, KT, Moo	4
Familiar topics	Refers to topics on the music achievement test that students have learned before	NOT, BEBOP, MOMO, BOSS, NT, NER	14
Unfamilira topics	Refers to topics on the music achievement test that students have not learned before	NOT, BEBOP, MOMO, BOSS	14
Feedback	Refers to students' general feedback music acheivement test, level of difficulty	NOT, NT, NER	8
Assessment	Refers to music assessment - Practical vs. theory	KM, MP, Moo, BOSS	8
Peer influence	Students' choices or dicisions influenced by friends in order to be accepted as a part of the group	KM, BEBOP	3
Learned from others	Teachers learning from other teachers. Students learning from other students	SG, KP, NOT, BEBOP, NT	9
Learned from experience (Background	A process of learning through experience (positive vs negative)	Moo	1
Collaboration	Working together - among schools, among disciplines, among staff, among students	KT	1
Recruitement	Mothods or strategies that a teacher use to invite more students to join musical activities or after school ensemble	KT, Moo	7
Chruch connection	Special connection within a chruch or religious organization	Moo	1
Internal connection	Special connection within an organization (school)	Moo	3
Organizational conflict	Conflict within the organization (school)	KM, MP, KP, BOSS	6
Demographics	Student's demographic information	NOT, BEBOP, MOMO, BOSS, NT, NER	6
Student's background	Student's educational and musical experience in all areas - relate to influential factors	BEBOP, MOMO, BOSS, NT, NER	17
Students' interests	Refers to students' personal interests involved music (types of music that they like to listen to, topic to research)	NOT, BEBOP, MOMO, BOSS, NT	11
Learned from school	Topics that students learned from their school music class	NOT, BEBOP, MOMO, BOSS, NT, NER	23
School atmosphere	The tone or mood of the school or particular class (relate to relationshiop, feelings)	NOT, BEBOP, MOMO, BOSS, NER	12
Class Routine	Routine in school music class or in after school rehearsals	NOT, BEBOP, MOMO, BOSS, NT	13
Self-taught	Having acquired knowledge or skill on one's own initiative rather than taking classes or private lessons (music	BEBOP, MOMO, BOSS, NT, NER	12
Influential factors (students'beliefs an	Factors that students believe to have influence on their music achievement	NOT, BEBOP, MOMO, BOSS, NT, NER	28
Future plan	refers to students' future plans which can involved music, academeic, or others	NOT, MOMO, BOSS, NT	9