Abstract — The objective of this research were to study technique of “Saw Sam Sai” skills appropriate for students majoring in music courses and to develop the knowledge and teaching practice technique of “Saw Sam Sai” skills in Rajabhat Universities in Bangkok, according to the National Qualifications Framework for higher education. This research is qualitative research, collecting data by in-depth interview in 4 Rajabhat universities in Bangkok include 4 music instructors and 3 musicians who expert in “Saw Sam Sai”, total 7 participants and field studies in 4 Rajabhat universities in Bangkok. Data Analysis is based on analyzing qualitative data by synthesizing Rajabhat music curriculums, standard specification in music and by summarizing the interview. The research result found that the subject matter of practical skills in “Saw Sam Sai” appropriate for students majoring in music are based on the music of the Thailand Board of Higher Education. The students majoring in Thai Music have to be able to perform basic of string instruments such as Saw Duong, Saw-U on level 5 from the music of the Thailand Board of Higher Education for Thai music students. Thai music students in major “Saw Sam Sai” must have ability in level 8 the music of the Thailand Board of Higher Education. The development of the material and teaching practice “Saw Sam Sai” in Rajabhat Universities in Bangkok, according to the National Qualifications Framework for higher education include drills that can be performed the solo song including the ability to sing and to perform together that supported learning outcomes in all aspects for those who can combine the style of the songs the knowledge of songs. The experience are necessary to listen and resolve the problem solving.

Keyword — 1, Saw Sam Sai 2, Rajabhat Universities 3, Thai music students

INTRODUCTION

Four Rajabhat universities in Bangkok has been Thai music curriculum that emphasis Thai Qualification framework for higher education. Teaching and learning in the universities. Students must study all of theory and practice Thai traditional music. Students who learn in the faculty of Fine and Applied Arts perform as musician or expert in Thai music instrument. Because Thai music is Thai culture, Thai music students studied how to play very well in each instrument from basic to high level in each year and can be solo in major instrument. There are 2 group of musical instruments separated by the band, first are Pi Pat, consist of Pi, Kong Wong Yai, Kong Wong Lek, Ranad Ek, Ranad Tum, and drum, second are Krung Sai and Mahori, consist of Klu, Jakae, Saw Doung, Saw U, and Saw Sam Sai, one of instrument was selected by student who have experienced and skillful. Saw Sam Sai is the one of instrument that has role in the band and a lot of technique of playing Saw Sam Sai different from the other. Teaching and learning Saw Sam Sai, that have unique and identities of contents and subjects for students to study. Researcher interested to study technique of “Saw Sam Sai” skills appropriate for students majoring in music courses and to develop the knowledge and teaching practice technique of “Saw Sam Sai” skills in Rajabhat Universities in Bangkok

LITERATURE AND THEORY

1. Technique and history of Saw Sam Sai

History of Saw Sam Sai was found from Sukhothai period, were used for Royal ceremony and Wong Mahori in the palace from the past until now. Saw Sam Sai act as the leader in Mahori band, Saw Sam Sai playing develop from the ritual and short Mahori song because King Rama II like to play and exported Saw Sam Sai. Body shape of Saw Sam Sai are different from the other string instruments that are very beautiful Thai string instruments. About technique of playing was develope from playing together with vocal in some song to solo song and special song. There are tactics of Saw Sam Sai that are how to sit, how to catch, how to turning, how to use bow, how to bow, how to use fingers for change tone. Phraya Phumi Sawin[1], the
first person who wrote all of tactics for Saw Sam Sai that was the first text book of Saw Sam Sai. This text book talked about patterns and tactics of Saw Sam Sai, and 3 types of Saw Sam Sai playing that are special for musicians. The three types of Saw Sam Sai playing are 1) "See Kub Mai" means to play with vocal from poetry in the royal ceremony 2) "See Kwai Play" means to use bow as cradling to accent or stress 3) "See Chui Chai" means to play like Thai vocal style by using tactics. Professor Dr. Utit Nakasawat[2], disciple of Phraya Phumi Sawin wrote addition text book of Saw Sam Sai tactics by emphasis the detail of bow, start at 1 tone to 1 bow up to 2 tone to 1 bow and above until 16 tone to 1 bow all of out and in to use bow and slither bow like a snake which have been in only Saw Sam Sai. Adout to use fingers, there were more technique than the pastIn addition, Thai classical music standard criteria. from office of Higher Education Commission[3] recorded technique of Saw Sam Sai in Thai classical music standard criteria book and how to evaluate perform from the Saw Sam Sai expertise about how to prepare and adjust before playing, the knowledge of each part of Saw Sam Sai, for example, Kalok Saw, Na saw, Young, Rad Ok, and other, include how to use bow, how to bow, how to use fingers and special techniques of Saw Sam Sai.

2. Thai Qualifications Framework

Thai Qualifications Framework for Higher Education; TQF: HEd is the tool for specifying policies which control and develop the educational qualities and standards which are stated in National Education Act B.E. 2542 (1999) and Amendments (Second National Education Act B.E. 2545 (2002)) about national education standards and university education standards which are concretely practical by putting them into use for developing curriculums, learning-teaching processes, and students assessment so that (1) the goals for producing graduates are able to be set up clearly by specifying standards of learning outcomes to graduates in each expected qualification, degree, and area of study (2) approaches for educational improvement and development along with learning-teaching methods and assessment processes are able to be applied (3) the qualities are comparable with standardized qualifications both in national and international institutes (Office of the Higher Education Commission, 2552 (2009) [4] The course of Fine and Applied Arts program in Music focuses on producing graduates who finish the planned course by holding the qualifications according to Thai Qualifications Framework for Higher Education's standards on the 6 areas of music study to standardize desired characteristics in 1) Virtue and Ethics: these two aspects will have an impact on honesty, discipline, punctuality, responsibility to oneself, society, and profession, leadership and followership, respect for rights, rules, and laws, open-mindedness, teamwork, and academic and professional ethics 2) Knowledge: to research the knowledge of music continuously in specifically related fields until gaining the deep understanding of the important music theories. To be able to analyze, explain, and apply the knowledge and skills of music as well as to be able to integrate music knowledge into another related subject 3) Cognitive Skills: to be able to analyze and summarize problems systematically and apply into the profession in order to be creative in producing a piece of music suitably 4) Interpersonal Skills and Responsibility: these aspects are that learners realize organizations that they belong to, are able to communicate with diverse groups of people, are responsible for ones' action and group work, are able to utilize knowledge and abilities in society as well as to develop ones' learning and profession continuously 5) Numerical Analysis, Communication, and Information Technology Skills: these skills are for training in technology and communication utilization for related music research and for the ability to apply technology by means of communication in music presentation efficiently 6) Psychomotor Domain: to possess the skills in using music instruments and voice, to possess good and proper personality, and to apply music theories into developing and presenting a piece of music in public.

According to the research on music study of 4 Rajabhat universities in Bangkok, Ban Somdejchaopraya[5], Chandrakasem[6], Phranakhorn[7], Suan Sunandha[8], this interests me, the researcher, to study the style of music study in Rajabhat universities in Bangkok by focusing on the study of Thai Qualifications Framework for Higher Education in order to develop learning outcomes of music profession of Rajabhat universities in Bangkok to be suitable for TQF.

RELATED WORKS OR DISCUSSION

Pansak Vandee[9] research entitled Thai Singing for Thai Music Students Development in Rajabhat Universities. The objective of this research were to study subjects of Thai singing skills appropriate for students majoring in music courses and to develop the knowledge and teaching practice singing in Rajabhat Universities in Bangkok, according to the National Qualifications Framework for higher education. This research is qualitative research, collecting data by in-depth interview in 4 Rajabhat universities in Bangkok.
include 8 music instructors and 3 musicians who expert in Khim, total 11 participants and field studies in 4 Rajabhat universities in Bangkok. Data Analysis is based on analyzing qualitative data by synthesizing Rajabhat music curriculums, standard specification in music and by summarizing the interview. The research result found that the subject matter of practical skills in Thai singing appropriate for students majoring in music are based on the music of the Thailand Board of Higher Education. The students majoring in Thai Music have to be able to perform basic singing such as Thamrong Sanoa, Sapor, Rai and sing songs for performing arts at least five songs in 2 Chan songs and one song in 3 Chan or Plng Tao or level 5 from the music of the Thailand Board of Higher Education for Thai music students. Thai music students in major singing must have ability in level 8 the music of the Thailand Board of Higher Education such as Tayoinok, Tayoinal, Rabum singing for solo etc. The development of the material and teaching practice Thai singing style in Rajabhat Universities in Bangkok, according to the National Qualifications Framework for higher education include drills that can be performed include the different ways of playing, singing performed the solo song including the ability to sing for dance and theatrical entrepreneur that support learning outcomes in all aspects for those who can combine the style of the songs the knowledge of songs, known as vertical transfer of the voice and intends to concentrate on singing. The experiences are necessary to listen and resolve the problem solving.

Sansanee Jasuwon [10] studied research entitled “The Development of Thai Music Theory for Thai Qualification Framework (TQF) in Higher Education: A case study of the Rajabhat Universities in Bangkok”, aimed to study the framework of Thai Music Theory in Rajabhat Universities’ curriculums and to develop the content of Thai Music Theory for Thai Qualification Framework in higher education. This study is the qualitative research. Data was collected through in-dept interview of 7 music instructors in 4 Rajabhat universities in Bangkok and content analysis. The research results are as follows 1) the framework of Thai Music Theory in Rajabhat universities music curriculums in Bangkok consists of the three main issues. The first issue is the elements of Thai Music such as: sound system, rhythm, melody, form etc. The second issue is background of Thai classical music. The last issue is the feature of Thai Music; Thai musical instruments, Thai ensemble and Thai songs. 2) The contents of Thai Music Theory for Thai Qualification Framework in Higher Education has five issues from six standards of learning dimensions included 1) Moral and Ethical Behavior, 2) Knowledge, 3) Intellectual Skill, 4) personal relations skill, 5) mathematical analysis skill, communication skill and information technology application skill and 6) Music Skill. There are the elements of Thai Music, the Background of Thai Classical Music, the Feature of Thai Music, Music Technology and Thai Music Research or Creative Projects. In addition, the student should learn the subjects related to the music in their daily lives and professional careers as recommended.

Sansanee Jasuwon [11] studied research entitled “Khim” performance for Thai Music Students in Rajabhat Universities aimed to study the contents and subjects of Khim skills appropriate for students in undergraduate music majors and to study teaching and learning Khim of Rajabhat Universities in Bangkok, according to the Thailand Qualifications Framework for Higher Education. This research was qualitative research, collecting data by in-depth interview in 4 Rajabhat universities in Bangkok include 8 music instructors and 3 musicians who expert in Khim, total 11 participants and field studies in 4 Rajabhat universities in Bangkok. Data Analysis was based on analyzing qualitative data by synthesizing Rajabhat music curriculums, standard specification in music, summarizing the interview and observation. The research result found that the contents and subjects matter of “Khim” skills appropriate for students in undergraduate music majors are based on the music of the Thailand Board of Higher Education, at least the students will be able to play Thai music songs and techniques to Step 9 of the standard criteria musical Thailand. The core contents consist of the set of songs on step 9, the ability to adjust the volume and tone, the understanding of technique on melody line of Khim and the necessary knowledge about percussion, Thai singing style, solo, ensemble and performing. The Soloist students should have a good personality and should learn the other instrument to be skilled in playing ensemble. Teaching and learning Khim of Rajabhat University in Bangkok, according to the Thailand Qualifications Framework for higher education. There are 6 learning outcomes in Thai Qualifications Framework for Higher Education in music curriculum includes 1) Moral and ethical behavior, 2) Knowledge, 3) Intellectual skill, 4) Personal relations skill, 5) Mathematical analysis skill and 6) Music skill. Learning outcomes in all aspects for those focused and intent on playing and training to be a soloist and performing in the band including the ability to control the tempo, to have knowledge of the song, known as the rhythm of the song, experience of listening and problem solving.

**METHODOLOGY**

This research is qualitative research, collecting data by in-depth interview in 4 Rajabhat universities in
Bangkok include 4 music instructors and 3 musicians who expert in “Saw Sam Sai”, total 7 participants and field studies in 4 Rajabhat universities in Bangkok. Data Analysis is based on analyzing qualitative data by synthesizing Rajabhat music curriculums, standard specification in music and by summarizing the interview.

RESULTS

The research results found that had been 3 topics of Saw-Sam-Sai Techniques:

1. Category of playing, technique of using bow 4 styles, such as

1.1 “See Puad Saw” mean to use bow in two strings between first string and second string which are different tone to create harmony. This style use every time in the main rhythm melody.

1.2 “See Kwai Play” by use 4 tone to 1 bow.

1.3 “See Kub Mai” by emphasize according to vocal and understanding about melody, phrase and main melody rhythm.

1.4 “See Chui Chai” by emphasize how to use finger and bow all to techniques and tactics to play as vocal.

2. Tactics of bow

2.1 1 tone to 1 bow

\[ \text{- - - m} \quad \text{- - - l} \quad \text{- - - r} \quad \text{- - - s} \]

2.2 2 tone to 1 bow

\[ \text{- lsm} \quad \text{smrd} \quad \text{tlrl} \quad \text{tlrm} \]

2.3 4 tone to 1 bow

\[ \text{sltd} \quad \text{tlsm} \quad \text{slsm} \quad \text{smrd} \]

2.4 8 tone to 1 bow

\[ \text{sltdtlsm} \quad \text{sltlrltd} \]

2.5 16 tone to 1 bow

\[ \text{- - - sl} \quad \text{- - - fsl} \quad \text{- - - tdrl} \quad \text{dtls} \quad \text{- l-d} \quad \text{- - - sl} \quad \text{lsdr} \quad \text{tfl} \]

2.6 Mixed bow together.

\[ \text{- - - lds} \quad \text{- - - lsm} \quad \text{rdrm} \quad \text{- - - f-s} \]

2.7 Slither bow for solo song.

2.8 “Sai Nam Lai” mean to use bow in playing main melody on going for a long time.

2.9 “Sa Eun” mean to use bow especially by pause in the same tone for solo song.

2.10 “Sa Ouk” mean to use bow make stumble sound like hiccup of human.
3. **Technique of how to use finger**, start from the left hand and thumb control the body of Saw Sam Sai and use the other finger for changing sound by tactics

3.1 “Neu Kod” means using end of the finger press down on the string for second and third strings.

3.2 “Neu Chun” means using finger push the first string.

3.3 “Neu Aey” means using finger slide to swish between high and low tone.

3.4 “Neu Pra prom” means using finger press on the string quickly and shortly to make short sound.

3.5 “Neu Roud” mean by changing finger in the other position to make high tone in the first string.

About relationship between tactics of Saw Sam Sai and learning outcome from TQF and music curriculum from Rajabhat universities in Bangkok can explain below:-

1. **All of technique and tactics can supported 6 learning outcome from TQF as follow:**

1.1 Virtue and Ethics

1.2 Knowledge

1.3 Cognitive Skill

1.4 Interpersonal Skill and Responsibility

1.5 Numerical Analysis, Communication and Information Technology Skill

1.6 Music Skill

2. **From the subject in music curriculum can separate into 6 perform subjects as follow:**

2.1 Music Skill I: Technique “See Puad Saw”, “See Kwai Play”, 1 to 4 tone to 1 bow, “Neu Kod”, “Neu Chun” and play the song from Thai-classical music standard criteria level 6.

2.2 Music Skill II: Technique like Music Skill I and plus mixed bow together and “Neu Aey” and play the song from Thai classical music standard criteria level 6.

2.3 Music Skill III: plus “See Kub Mai”, using bow “Sai Nam Lai”, “Neu Pra prom”, and play the song from Thai classical music standard criteria level 7.

2.4 Music Skill IV: plus “See Chui Chai”, using bow “Sa Eun”, and play the song from Thai classical music standard criteria level 7.

2.5 Music Skill V: mixed technique between “See Kub Mai” and “See Chui Chai” by play with Thai vocal and play the song from Thai classical music standard criteria level 8.

2.6 Music Skill VI: emphasis “See Chui Chai”, plus 8 tone to 1 bow and “Neu Roud” in the other position and play the song from Thai classical music standard criteria level 8.

2.7 Solo Skill: playing mixed all technique and tactics, plus 16 tone to 1 bow and play the song from Thai classical music standard criteria level 9.
Appendices

Part of Saw Sam Sai

Figure 1

Saw Sam Sai [12]

1. Tuon Bon                13. Sai Sam
2. Look Bead               14. Kan Chak
3. Rad Ok                  15. Kerm
4. Tuon Laung              
5. Proom Bon               
6. Young                   
7. Na saw                  
8. Proom Laung             
9. Kalok Saw               
10. Tooung Na              
11. Sai Nung               
12. Sai Song               

Figure 2

Sitting posture
CONCLUSION AND FUTURE WORK

Teaching and learning musician Rajabhat university curriculums adjust the subject in 3 groups: performing in major instrument, ensembles and solo. In each group, there are the subjects supporting 3 technique of Saw-Sam-Sai increase from simple to expert in 6 subjects of major performing, 4 ensembles and solo that can supported 6 learning outcome of Thai Qualification Framework in Higher Education. In the future, Thai music curriculum in Rajabhat Universities will be create text books in each instruments and research in more Thai musical instruments.

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