

## **PITCH ISSUES IN ORIENTAL CLASSICAL VOCAL MUSIC PRACTICAL EXAMINATIONS**

Dr.S.Darshanan,

*Head of the department of Music, University of Jaffna, Central Government of Sri Lanka*

Department of Music, University of Jaffna, Chunnagam, Jaffna

music75@gmail.com, 0094-71-20-100-20, 0094-776-85-25-65

### **INTRODUCTION**

The objective of the research is whether the pitch issues affect the examination results for oriental classical vocal music practical. The null hypothesis is set as “the pitch issues do not affect the examination results for oriental classical vocal music practical”. The perceived pitch of tones is essentially determined by frequency. This does not mean, however, that pitch is entirely independent of other parameters of sound such as intensity, spectral composition, and superposition of additional sound. (Terhardt,1998)

Pitch is an perceptual property that allows the ordering of sounds on a frequency-related scale (Klapuri and Davy, 2006). Pitches are compared as "higher" and "lower" in the sense associated with musical melodies, which require "sound whose frequency is clear and stable enough to be heard as not noise".

Pitch is a major auditory attribute of musical tones, along with duration, loudness, and timbre. Pitch may be quantified as a frequency, but pitch is not a purely objective physical property; it is a subjective psycho acoustical attribute of sound. Historically, the study of pitch and pitch perception has been a central problem in psychoacoustics, and has been instrumental in

forming and testing theories of sound representation, processing, and perception in the auditory system.

## **METHODOLOGY**

The 87 questionnaires were collected from the distributed 100, among the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year Bachelor of Fine Arts, Vocal Music Degree Students of a University. 1<sup>st</sup> year students were omitted because they didn't have enough experience in their past university examinations. The questions were translated in the mother tongue of the subjects, before distribution. The qualitative participatory research is admitted by the researcher under direct observation, while the researcher is being an examiner for the music practical examinations of different Universities. Also the researcher had a Focus Group Discussion with the University Examiners. The size of FGD was 10. The outputs of the participatory research and the FGD were converted in to a structured questionnaire in order to increase the reliability of the research data. The hypothesis has been tested by analysing the data collected by the questionnaire, with excel.

## **RESULTS AND DISSCUSSION**

According to the results of Focus Group Discussion, all ten examiners agreed that "All students who were failed in the vocal music practical examination made mistakes in pitch related issues". The interpretation of the statement would be the pitch related issues were the reason for failure in the examinations, for all failures. Therefore the pitch related issues are considerably affecting the results of the vocal music practical examinations. Also the all ten examiners agreed that more than 95percent of the students used to have at least a minor pitch issue in the vocal practical examinations.

A question was asked in the questionnaire that whether the student faced any pitch related issues in any vocal music practical examination? 45 percent of the respondents agreed that they had pitch related issues while singing for the examination. It doesn't mean that 45 percent of the respondents were failed in the examinations. 45 percent of the respondents had some sort of pitch related issues in the examinations, according to the respondents. But, the examiners have to decide that the particular issue how much affected the examination results.

55 percent of the respondents mentioned that they hadn't any such problems in the past examinations. Many are the accomplished singers who blithely report "fortunately I have never had pitch issues." Well, guess what: everybody has pitch issues! Yes, everybody. Doesn't matter if they sing on stage at the Met for a living, or merely hum an occasional aria in the shower when no one else is home. The truth is, even very good singers cannot tell when they are singing off pitch. This has been proven in experiments where, for example, professional vocalists (MS and PhD performance majors) are asked to sing a phrase and immediately after state whether or not they sang on pitch. Later, these singers listen to a recording of themselves singing the phrase and then state whether or not there were pitch problems, and where they occurred. The two reports differed, however, because while the singers were able to accurately note all intonation issues upon listening to the recording of themselves, they were not successful in catching the problems as they sang; the score given to themselves immediately after singing had no correlation to actual pitch accuracy (Stephen, 2009).

According to the above mentioned paragraph from a research report, everybody has pitch issues. But, they cannot judge themselves while singing. Therefore the examiners have to judge them to find out the pitch related issues of the respondents. The 55 percent

respondents' statement as "they hadn't any such problems in the past examinations" cannot be accepted.

## **CONCLUSION AND RECOMMENDATIONS**

The discussion concludes to reject the null hypothesis "the pitch issues do not affect the examination results for oriental classical vocal music practical". The pitch related issues affect the examination results for oriental classical vocal music practical. Therefore the conclusion of the research would be if pitch related issues are overcome, the failures in the oriental classical vocal music practical examination could be minimised.

Through the direct observation in the examinations, the researcher observed the performance of the students closely and found several pitch related issues. These issues can be categorised in to four main groups. They are

1. Pitch shift
2. Pitch deviation
3. Off pitch and
4. Pitch Fluctuation

The pitch shift is planned pitch variation and the last three are errors.

When the pitch of a tone of constant frequency changes appreciably due to a change of intensity or on superposition of another sound, this is called a pitch shift. When the pitch of a tone turns out to deviate from a value which according to some smart thinking was expected, this is called a pitch deviation.

An example of pitch deviation is the interaural pitch difference (IPD, binaural diplacusis ).

When one and the same tone is alternately presented to the right and left ear alone, there is a

good chance that a slight but, for a fixed frequency systematic, difference between the pitch from the right ear and that from the left can be noticed . In such a case one can notice that the pitch of a pure tone presented to both ears is different at the two ears. The term diplacusis refers to the concept that the pitch of a tone is dependent on the place of maximal excitation of the cochlear partition. Indeed, there is a high correlation of the occurrence of an IPD with local damage of the inner ear. Another example of pitch deviation is the difference in pitch between a pure tone and a harmonic complex tone with identical (fundamental) frequencies and about the same loudness. In many cases, the pitch of the harmonic complex tone turns out to be slightly lower than that of the pure; though, for a certain combination of SPLs of test stimuli, found the opposite tendency.

The amount of pitch shifts and pitch deviations which may occur in normal-hearing persons is between 0 and plus/minus a few percent (in terms of equivalent frequency departure). It was found that individual persons differ systematically in their amount (although not the direction) of pitch shift/deviation for any given stimulus.

Measurement of pitch shift/deviation is efficiently accomplished by presenting the two tones to be compared in alternate succession, with tone durations between 0.2 and 1 s, and silent intervals between tones of 0 to 0.5 s. As auditory short -term memory for pitch is very accurate through silent intervals up to several seconds these parameters are not critical. When the listener is advised to adjust the frequency of one of the tones such that no difference in pitch can be heard, the resulting difference between the two tone frequencies is a measure for the pitch deviation that would exist when the frequencies were equal.

Off pitch is singing some notes in the correct pitch and other notes in deviated pitch. Pitch fluctuation is singing each notes or most notes in dramatically fluctuated frequency levels and not steadily. The pitch fluctuation is the uncontrolled singing with shivering. There are nearly

20 pitch issues under these 4 main categories, identified by the researcher from direct observation in the examinations.

1. Realised pitch deviation
2. Unrealised pitch deviation
3. Realised pitch fluctuation
4. Unrealised pitch fluctuation
5. Realised off-pitch
6. Unrealised off-pitch
7. Realised pitch deviation in higher octaves
8. Unrealised pitch deviation in lower octaves
9. Realised off-pitch in higher octaves
10. Unrealised off-pitch in lower octaves
11. Realised pitch fluctuation in higher octaves
12. Unrealised pitch fluctuation in lower octaves
13. Realised pitch deviation in fast phrases
14. Unrealised pitch deviation in fast phrases
15. Realised pitch fluctuation in fast phrases
16. Unrealised pitch fluctuation in fast phrases
17. Realised off-pitch in fast phrases
18. Unrealised off-pitch in fast phrases
19. Realised pitch deviation due to external sound
20. Unrealised pitch deviation due to external sound

Realised pitch issue means the students know that they are singing wrong, but they don't know how to correct it. Unrealised pitch issue means the students don't know that neither they are singing wrong and how to correct it.

The remedies could be found out by further research in order to overcome the each twenty pitch issues. Action research can be made to solve each pitch issue.

## REFERENCES

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