

DOCTORAL THESIS

Role and efficacy of verbal imagery in the teaching of singing: case study and computer vocal analysis

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**Role and Efficacy of Verbal Imagery in the Teaching of Singing:
Case Study and Computer Vocal Analysis**

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**A thesis submitted in partial fulfillment of the requirements
for the degree of
Doctor of Philosophy**

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ABSTRACT

Voice teachers and vocal pedagogical literature cite verbal imagery (e.g., “sing as if you are biting an apple”) as a commonly used teaching tool for communicating desirable physical sensations, vocal characteristics, musical interpretations, and concepts of vocal production as well as appropriate vocal quality. While both practitioners and researchers consider verbal imageries to be a fundamental means of communication in contemporary voice teaching and learning, there apparently is no identified systematic research of the role and efficacy of verbal imagery in the teaching of singing.

Thus, the purpose of this study was to identify the role and efficacy of verbal imagery in the teaching of voice based on the use of observations and interviews of four selected voice teachers and computer acoustic analysis of four selected undergraduate vocal students. Utilizing these two seemingly disparate research approaches offers the advantages of obtaining data and insights based on the pedagogical wisdom and practical experience of voice teachers along with the technical objectivity of computer acoustic analysis.

Results based on this study show that voice teachers used verbal imagery on a regular basis, on average every 5 to 9 minutes, during observed lessons, with verbal imagery used less frequently with advanced students. Of the four types of verbal imagery examined (viz., physiological-object imagery, physiological imagery, musical conceptual imagery, and non-musical conceptual imagery), non-musical imageries were used the most, followed by physiological imagery, physical-object imagery, then musical conceptual imagery. Findings also show that when student’s singing did not show any obvious improvement after using verbal imagery, these voice teachers often used the same verbal imagery but with slight modification or variations in wording and description in enhancing the potential efficacy of verbal imagery in voice teaching and learning.

During the interview phase of the study, the voice teachers felt verbal imageries can by-pass complicated explanations of physiological aspects of vocal tract, and evoke physiological movements in correcting vocal problems. Moreover, these voice teachers stated that verbal imagery works most effectively when asserted spontaneously, because they believed that each specific verbal imagery is designed and targeted to solve a particular vocal problem according to individual student’s ability and need.

Furthermore, the voice teachers advocated three steps in utilizing verbal imagery: 1) identify vocal problem; 2) give verbal instruction/imagery; and 3) correct singing technique and musical interpretation. Findings also show that there are two common methods of employing verbal imagery in the teaching of voice: a) develop a teaching/learning theme during a lesson (i.e., use of the same verbal imagery to solve a particular vocal problem); and b) adapt several different verbal imageries to tackle one particular vocal problem.

The portion of the study using computer acoustic analysis used the Computerized

Speech Laboratory (CSL) 4100 in examining collected singing samples on pre and post exposure to selected verbal imageries with a particular focus on measures of vocal intensity. Although no statistical difference between pre- and post-treatment of verbal imagery for group data was detected by *t* tests, individual student-subject data, however, shows that verbal imagery is effective on a case by case basis with demonstrated improvement of sound pressure level, pitch accuracy, and singing power ratio.

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