

# DE LA SALLE UNIVERSITY

**INSTRUCTIONAL PACE AND VOICE MODULATION:  
EFFECTS ON SELECTED STUDENTS'  
RETENTION AND COMPREHENSION ABILITIES**

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A Thesis  
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by

MARY AILEEN SANSON CHUA  
MARIA TERESA RECTO RAMOS

Lia - Sr

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## ABSTRACT

To investigate whether instructional pace and voice modulation significantly affect selected students' retention and comprehension abilities, a 3 x 3 factorial design experiment was conducted. Seventy-one De La Salle University freshmen, taking Human Development and Introduction to Sociology, were made to listen to two pre-recorded lectures, taken from the Brown Carlson Listening Comprehension Test. Part A was entitled "Immediate Recall" while Part B was called "Increasing your Vocabulary", which measured retention and comprehension abilities, respectively. Instructional pace was varied as fast - 199 wpm; moderate - 134 wpm; and slow - 102 wpm; while voice modulation was varied as loud-10th line (of tape recorder's volume indicator); moderate 7th line, and soft - 4th line. Tests were administered after each lecture and scores were subjected to a 2 way Analysis of Variance for disproportional cells. Results indicated that either pace or modulation significantly affected retention and comprehension abilities ( $p < .05$ ) and that a slow pace elicited higher scores for both abilities studied, did the two other paces. Moreover a loud modulation elicited higher mean scores for retention and moderate voice modulation elicited higher mean comprehension scores. Interaction effects between instructional pace and voice modulation were however minimal and therefore insignificant at .05 level. It was concluded that a slow instructional pace elicits both effective retention and comprehension of learning materials; while, loud and moderate voice modulations elicit higher retention and comprehension, respectively. However it is strongly recommended that studies be made on a larger replicate population for the generalizability of findings.

