Paper title: **An acoustic study of the segments in the Vietnamese consonant sequences**

Sub-field: **Foreign Language Acquisition & Phonetics Pedagogy**

Authors: **Thi-Thuy-Hien TRAN & Nathalie VALLÉE**

Affiliation of authors: **The Speech and Cognition Department of GIPSA-lab, Grenoble, France**

Email: [thuy-hien.tran@icp.inpg.fr](mailto:thuy-hien.tran@icp.inpg.fr); [nathalie.vallee@icp.inpg.fr](mailto:nathalie.vallee@icp.inpg.fr)
Abstract body (maximum 400 words). Be as specific as possible, with a statement of topic, approach, and conclusions.

One of the difficulties faced by Vietnamese subjects upon learning French is the pronunciation of consonant clusters, which do not exist in Vietnamese. Those clusters are often deformedly pronounced and this problem persists even after several years of practicing. So, what is the core reason for this difference in pronunciation? What includes in those differences and which are their implications in the acquisition of the phonetic percepts?

Between the possible consonant sequences in French and Vietnamese figure /syllable-final stop + consonant/, /syllable-final nasal + consonant/. However one of the characteristics of Vietnamese is that the final consonants /p t k m n ŋ/ are not released whatever the conditions of their realizations. It is not the case of the French final consonants.

The two languages know dissimilarity: they have very different syllabic and lexical structures. The Vietnamese syllabic structure is represented as (C₁)(w)V(C₂), the brackets indicating the optional constituents. The diversity of the syllabic structure is much more present in French (C₁)(C₂)(C₃)V(C₄)(C₅)(C₆)(C₇). However, 96 % of the French syllabic structure enter the pattern (C₁)(C₂)V(C₃) which corresponds to the lexical structure frequently encountered in Vietnamese. But isolating language with dominant structure CVC, the Vietnamese lexicon knows the consonant sequences only in the compound words. These continuations of Vietnamese consonants are not realized like clusters of French, because they are not produced in sequences from the articulatory perspective.

In these problems, we undertake a study which allowing better understanding of the difference in the realization of the Vietnamese plosives (/p t k/) and nasals (/m n/) according to their distribution by considering two possible contexts for coda: end of word (C₁/a/C₂); end of syllable 1 of a compound (C₁/a/C₂.C₃VC₄).

We retained with PRAAT a certain number of parameters in the corpus of 140 words. The data of acoustic measurements were then analyzed by using SPSS. The results of analysis show that the consonants are significantly longer in the initial position than in the final position of lexical item than this one is monosyllabic or dissyllabic. The consonants in C₁ present more energy in the burst than in C₂ or C₂.C₃. The transition of final F₀, F₁, F₂, I do not demonstrate an overall insignificant effect between the position C₂ and C₂.C₃.

This is the first stage of discovering the responsible factors explaining for the difficulty of producing the French consonant clusters and of understanding the relations between the perception and production of the final consonants faced by Vietnamese learner.
REFERENCES


