

# **UZH-UNIGE Workshop on Computers in L2 Learning and Assessment**

## **Abstracts**

### **Designing F2F activities and online language practices: What has technology changed for students of Chinese at the University of Geneva during the last 10 years?**

Claudia Berger (Université de Genève)

Moodle was introduced at the University of Geneva in 2006, and thanks to the collaboration of a helpful eLearning team, we have step by step tamed this online learning management system (LMS). Our interest in using Moodle was first motivated by the fact that Chinese is a morpho-syllabic, non alphabetical language: the written system, especially for the basic lexicon, gives little to no hints on how to pronounce the texts. Computer Assisted Language Learning (CALL), thus, was primarily intended for helping the students to 'hear' oral and written language. In our communication, we will show how we have designed a blended-learning system for teaching Chinese to beginners, what is best taught in F2F instruction, and which language skills can be best practised online. Special focus will be put on an eTandem telecollaboration course, as well as on a project we currently work on, that is the creation of formative and certificative tests for a more general implementation of eAssessment not only in scientific subjects but also in the Faculty of Arts of our university.

## **Designing effective and enjoyable computer-supported systems for L2 learning.**

Mireille Bétrancourt (Université de Genève)

This talk will address the methods used in cognitive ergonomics in order to assess the quality of computer-based learning systems on two dimensions: instructional effectiveness (whether the system is designed in a way that promotes learning, interest and persistence) and user experience (pragmatic and hedonic components). As an illustration for L2 learning, I will present the study conducted by Brigitte Steiner for her master thesis in 2018 (Master MALTT at UNIGE). Using experimental methodology, she investigated the effect of providing feedback about tones in Chinese in simple computer-based instruction training auditory discrimination using either static or dynamic visualization of the pinyin.

## **MIAPARLE: Online training for discrimination and production of stress contrasts in L2 Spanish and L2 English**

Jean-Philippe Goldman (Université de Genève), Sandra Schwab (Université de Genève/Zürich) & Volker Dellwo (Zürich Universität)

MIAPARLE ([miaparle.unige.ch](http://miaparle.unige.ch)) is a web application for the general public that is designed to offer an innovative range of CAPT (computer-aided pronunciation teaching) tools for second language (L2) learners. MIAPARLE focuses on stress perception and production in L2 Spanish and L2 English. Such a tool is particularly useful for speakers whose native language is a fixed-stress language, such as French. These speakers have difficulties perceiving and discriminating stress contrasts, and therefore struggle when producing them. To help L2 learners reducing their so-called stress 'deafness', MIAPARLE provides a training module composed of perception and production activities. In the perception activities, the learners have to associate (auditory) stress patterns with visual patterns. In the production activities, the learners are shown pictures and have to produce in L2 the word for the item they see. The participants' production is acoustically analyzed and visually represented with the stressed syllable highlighted. A comparison between the participants' production and the native canonical production serves as feedback. Pre- and post-tests, composed of two perceptual tasks, are used to evaluate the training effect.

## **Computer-assisted language learning in old adulthood: How *Duolingo* can or cannot complement classroom-based learning**

Maria Kliesch (Zürich Universität)

While computer-assisted language learning (CALL) is becoming increasingly important in SLA, there is hardly any research using CALL with third age learners (> 65yrs). I present study design and preliminary findings of a 7-months L2 training for older Swiss adults learning Spanish. The training combined classroom-based learning (including introductions to grammar topics and opportunities for speaking and listening practice) with CALL (*Duolingo*) in order to give participants the opportunity to consolidate and enhance their vocabulary at home and at their own pace. I will discuss, among others, in what ways the structure and content of the software can or cannot be reconciled with the classroom curriculum, how L2 progress is measured by the software and how the individual learning with *Duolingo* affected the L2 outcome in the language tests applied.

## **Where did the segments go?: Teaching prosody with synthetic stimuli**

José María Lahoz Bengoechea (Universidad Complutense de Madrid)

The acquisition of some aspects of L1 prosody has been shown to begin prior to birth, in a setting (the womb) where segmental information is not accessible. In this talk, it is proposed that, when teaching L2 prosody, some exercises be designed segment-free. This has the additional advantage that learners can focus on the phenomenon that is being practised each time, instead of getting distracted by the pronunciation of segments deemed difficult or by their will to understand the meaning of every word. Some guidelines will be discussed that can orientate the design of intonation, stress, or rhythm exercises using synthetic stimuli.

## **Towards the automatic evaluation of L2 pronunciation using Pillai and LDA classification scores**

Paolo Mairano (Université de Lille) & Fabián Santiago (Université Paris 8)

Evaluating L2 pronunciation via acoustic measures is problematic. In the literature, this is sometimes accomplished via fluency metrics (speech rate, average length of IPUs, etc), which however do not capture pronunciation accuracy. Other studies use VOT measurements (only possible if L1 and L2 differ in this respect) or comparison of vowel formants with native values. This contribution uses vowel distances in an F1-F2-F3 space, Pillai scores and classification scores for vowel pairs as acoustic metrics of L2 vowel pronunciation. We compute these metrics on speech produced by learners of L2 English and L2 French and we compare them with (a) fluency metrics computed on the same productions, (b) VOT measurements, (c) impressionistic judgments provided by native speakers. We will discuss the advantages and drawbacks of this type of metrics.

### **After pronunciation training L2 learners converge prosodically to the native speaker**

Elisa Pellegrino (Zürich Universität)

Although in classroom context little attention is paid on teaching L2 prosody, L2 learners may benefit from computer-assisted pronunciation training (CAPT) systems to improve the perception and production of L2 suprasegmentals. In the present research, we test the pedagogical effectiveness of the ‘self-imitation technique’ for the acquisition of L2 Italian prosody. 5 Japanese learners (NNSs) and 1 Italian native speaker (NS) recorded two sentences in Italian conveying three distinct speech acts: command, request and granting. The NNSs’ utterances were manipulated as they receive the duration and f0 characteristics of the corresponding NSs. NNSs imitated their own voice previously modified to match the reference NS and recorded the new performance. Results show that after the training NNSs converge towards the NS in f0 mean for all speech acts. NNS converge more to the native model in terms of f0 max for requests and in terms of syllable duration for granting.

## **Automatic feedback in computer-based second language learning**

Rubén Pérez Ramón (Universidad del País Vasco)

Computer based language learning is nowadays more accessible than ever thanks to the advance of technology. Even though automatic systems are still far from perfect and learners know that the role of the teacher is pivotal on their improvement, several learning tools aim to offer self-contained methods. In a general sense, automatic systems' goal is not to be perfect, but to be effective (i.e. to 'understand' the speaker); automatic learning systems, on the other hand, require very precise metrics in order to properly assess the production of the learner. In this scenary, the feedback provided to the participant becomes crucial, and accuracy is no longer a marginal issue. In this talk, we will review some of the most known tools for language learning with particular focus to the feedback provided to the student, what is good about it and what is yet to be improved.

### **Does visual feedback improve pronunciation? The effect of computer software training on learners' pronunciation on segmental and suprasegmentals features.**

Alejandra Pesantez (Zürich Universität)

The main goal of a student who learns a second language (L2) is to develop good pronunciation skills (after having a considerable exposure to the language) to limit the number of misunderstandings in their communications. Unfortunately, teachers do not have enough time to correct students utterances that may interfere with intelligibility and give them immediately feedback. The goal of this project is to examine the effect of visual feedback using Praat software ((Boersma & Weenink, 2018) in L2 English learners' pronunciation on segmental and suprasegmental features of the target language. Using Praat, learners can record themselves and play back the recording to visualize how the word, declarative sentences or questions have been pronounced. Results will give us an overview of what pronunciation features can be accomplished in a phonetically-trained classroom using a computer software

## **The detection of learner difficulties from unannotated corpora**

Gerold Schneider (Zürich Universität)

We detect typical learner errors and areas of difficulty by using learner corpora and parallel corpora in a data-driven fashion, using machine learning and collocation statistics. We aim to deliver targeted teaching material to students, helping them to avoid typical pitfalls, and to allow them to explore idioms and subtle differences between related words. We focus on collocation errors in English as target language, in particular prepositional constructions, like verbs with PP complements (e.g. *depend on*), adjectives with PP complements (e.g. *responsible for*), and phrasal verbs (e.g. *turn down*). We use collocation metrics to detect errors, coupled with a large native speaker corpus (BNC), and partly large parallel corpora.