"Specifications for a language learner model for adaptive feedback in second language learning"

Sylvie Thouësny

School of Applied Languages and Intercultural Studies, Dublin City University, Ireland
sylvie.thouesny2@mail.dcu.ie

Abstract

This poster outlines the specifications of a language learner model that will be integrated into a web-based Intelligent Computer-Aided Language Learning application. This language learner model will assist language teachers in the provision of strategic and effective corrective feedback depending on learner's proficiency, learning trajectory and task characteristics. A learner model that will include not only the learner's knowledge state but also features such as learner's individual differences and task characterisitics should improve the quality of feedback provided by either computerised systems or teachers.

Introduction

Language teachers devote a considerable amount of time to the correction of students' written production. Computers have been said to offer tools to assist teachers in this important task. However, the provision of appropriate and effective corrective feedback, either by human or machines, constitutes a difficult endeavour: it requires knowledge of learners' characteristics such as learning styles or past performance.

A learner model that will store information about learner knowledge, individual differences and task will allow the teacher or the computerised system to adjust adaptive feedback more accurately as the learner progresses.

What is a Learner Model?

The design of a learner model draws on disciplines such as Applied Linguistics or Human Computer Interaction.

Heift (2002) defines a learner model as a set of information that contains knowledge about a student's strengths and weaknesses. Usually part of an Intelligent Tutoring System, the learner model provides the system with information about the learner knowledge, which is then used to give feedback to the learner.

Although individual differences are considered as reliable indicators in learning success (Dörnyei 2005), most learner models only capture the knowledge state of the learner and leave aside individual differences such as learning styles.
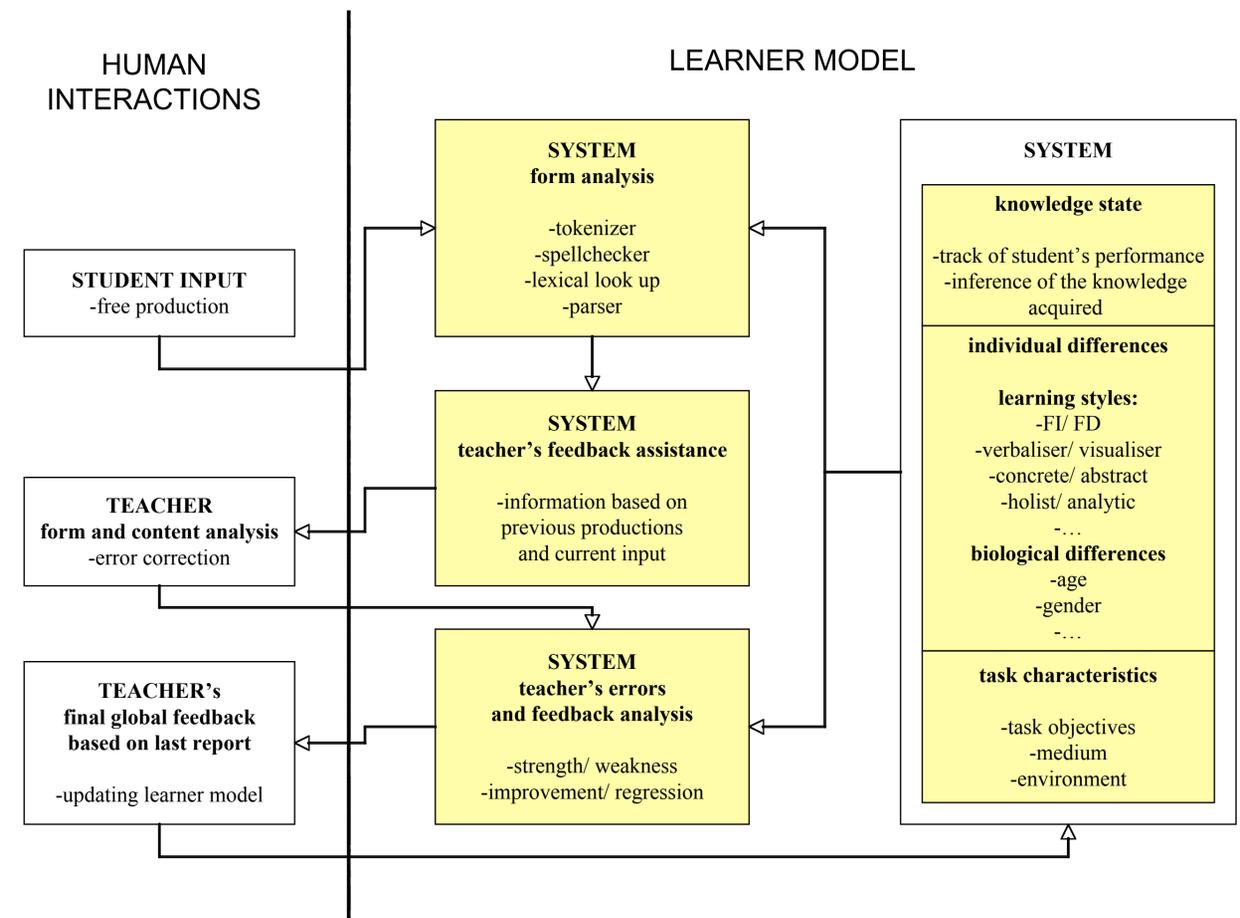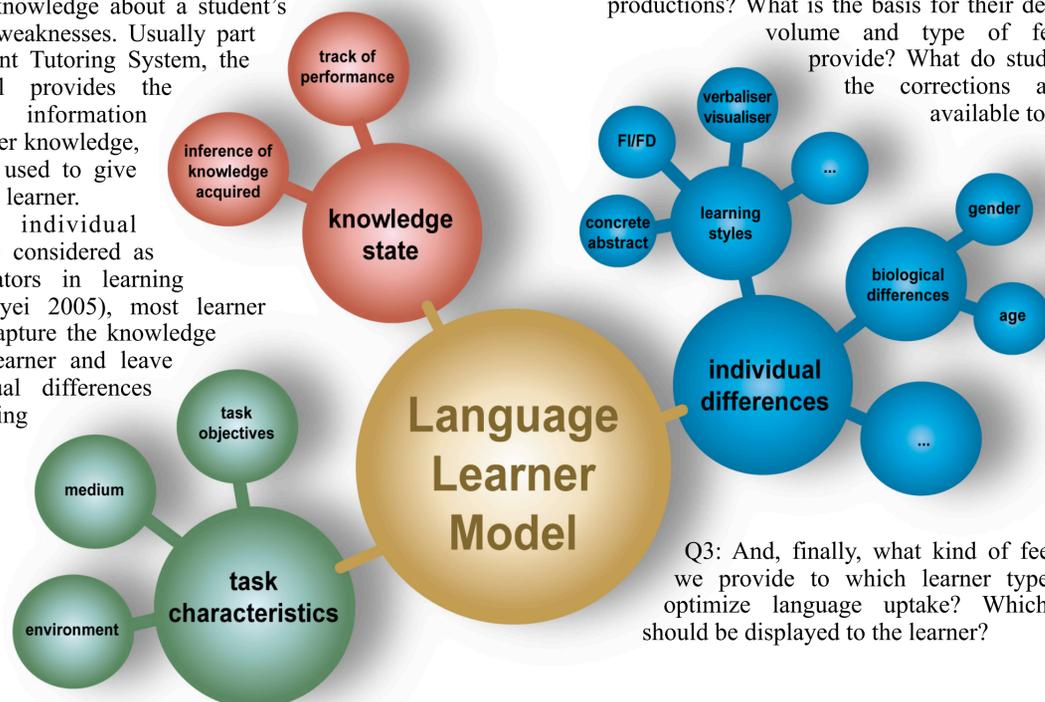
Aim

This research project aims to develop a learner model that will incorporate not only knowledge state and learner attributes but also task characteristics with a view to enhancing the quality of teacher feedback as well as learner language uptake.

This learner model will assist teachers in providing strategic and effective corrective feedback to their students when engaging in open tasks in accordance with their individual differences and task characteristics.

In order to (a) determine the components of the system learner model and (b) validate the information stored in the system, the following research questions are addressed:

Q1: Which information should the learner model contain, so that the quality and impact of the feedback provided by teachers can be improved?

Q2: How do language teachers correct students' written productions? What is the basis for their decisions on the volume and type of feedback they provide? What do students 'do' with the corrections and feedback available to them?

Q3: And, finally, what kind of feedback should we provide to which learner type in order to optimize language uptake? Which information should be displayed to the learner?

Figure 1: System "learner model"

System "learner model"

Partially based on Amaral and Meurers' (2007) modelling, whose strategies consist of modelling what they can directly observe from learners' inputs, Figure 1 represents a possible conceptualization of a learner model for language learning that will include not only knowledge state but also individual differences and task characteristics.

Conclusion

Being thought with the view of being integrated into an online language assignment management system used for the submission and correction, this learner model will store and retrieve information to adjust feedback to each language learner not only on pre-defined written productions but also on essay-type questions written in response to an open task. Language uptake, as a result of the integration of such a language learner model in an ICALL application, should be optimised and realised.

References
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