

Collaborative Student Modelling in Foreign Language Learning

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This thesis illustrates the potential for student models to include a richer range of information, to aid in diagnosis and to support learning. This is achieved in three ways:

- taking account of issues which affect learning in the target domain;
- involving the student in the student modelling process;
- using the student model as a learning resource for the student.

Although this is a general perspective, it is here illustrated in a concrete implementation in the domain of Second Language Acquisition. The approach is *collaborative student modelling*.

The aim of collaborative student modelling is to encourage greater learner involvement in the modelling process in order to obtain a more accurate student model, while at the same time promoting learner reflection. Reflection occurs as the student is encouraged to view the student model, and to collaborate with the system in its construction and repair. The student model here assumes some of the work conventionally associated solely with the teaching strategy module, while also becoming a learning resource. Learners are involved in the maintenance of a range of aspects of the model, which include theoretical issues in Second Language Acquisition as applicable to themselves, and the accuracy of the representations of their beliefs.

In the field of *Second Language Acquisition* this thesis makes contributions to five areas: analysis of errors with personal object pronouns in European Portuguese; transfer from non-native languages; acquisition sequence; learning strategies; language awareness.

In the field of *Artificial Intelligence in Education* the thesis has introduced the approach of collaborative student modelling as a means of increasing the accuracy of the student model, and encouraging learners to reflect on their knowledge and approaches to learning.
