The Patented TALL System

There are certain aspects of Global Educational Technologies' ***Technology Assisted Language Learning (TALL)*** program, which have either received or have patents pending.

Patent Awarded (# 6,077,085)

1. *Concept Tagging and Automatic Contextual Filtering System*, which allows grammar in sentences to be tagged, the software automatically fetches sample sentences that illustrate the appropriate grammar principle, but filters out sentences that contain grammar principles the user has yet not learned.
2. *Systematically Spaced Review*, the method of selecting which activity to do next, real-time evaluation of student responses (speed and correctness) and resulting adaptation.
3. *Phrase Memorization Activities*, the ordering of parts and progressive typing.
4. *Individualized Automated Student Monitoring and Reporting*, the structure of user data tracking and reporting.

Patents Pending

1. *Activity Builder* allows designer to create flexible, dynamic, individualized activities and to create custom user tracking and collaborative activities.
2. *Adaptive Path Builder* controls the flow of adaptive instruction, and the proper delays between reviews.
3. *Theme Designer* enables the ability to change the look and feel instantly throughout a course.
4. *Research Organizer* facilitates the set up of varied automated experiments and analysis of the results.
5. *TALL Tools* for report generation.
6. *Learning Optimizer*, a tool that finds optimal instructional parameters for an individual learner, or groups of learners. This enables even new learners with near-optimal instructional parameters based on the learner's similarity to other users or groups for which optimum settings have been found.
7. *Learner Guidance System* provides the learner with a prioritized to-do list, and itemizes progress through the course.
8. The *Continual Improvement Educational System*, provides:

   a. long-term retention

   b. tools for an instructional designer to evaluate and improve the instruction

   c. tools for conducting automated experiments leading to improving the instructional design.

US006077085A

United States Patent [19]

Parry et al.

[11] **Patent Number: 6,077,085**

[45] **Date of Patent: Jun. 20, 2000**

[54] **TECHNOLOGY ASSISTED LEARNING**

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[21] Appl. No.: **09/081,706**

[22] Filed: **May 19, 1998**

[51] **Int. Cl.**[7] **G09B 3/00**

[52] **U.S. Cl.** **434/322**; 434/185; 434/118

[58] **Field of Search** 434/322, 323, 434/118, 156, 157, 185, 186, 350, 362

[56] **References Cited**

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[57] **ABSTRACT**

The systems, methods and apparatus of preferred embodiments of the present invention provide an integrated instructional system directed to learning a specific task or concept. Some embodiments are particularly suited for language instruction and some embodiments will accommodate a group of students with differing native languages. This is accomplished in the exemplary embodiment through the use of a template and database system wherein computer activity templates are programmed to perform a task or carry out an exercise. An activity template accesses data stored in a multilingual language database according to a student's needs or preferences. Embodiments of the present invention also provide a review method and system which optimize study efficiency by managing the content of review sessions according to each student's individual familiarity with those concepts. A systematic spaced review method gauges a student's long-term retention, understanding and familiarity with a concept by measuring, recording and monitoring the student's speed and accuracy of response to a prompt. Some embodiments also provide a concept tagging method and system whereby a database of words, phrases, sentences and other similar language constructs is analyzed to identify specific grammar, syntax, vocabulary or other language structure or concepts. Database elements are tagged according to these constructs for sorting and filtering according to a students needs. The systems and methods of the present invention will also relieve the instructor of the responsibilities of monitoring student progress, tailoring materials to individual students and their varying levels of progress, developing testing materials to gauge progress and proficiency, and developing study aids to help students master particular challenges. The system and method also benefits students generally by providing systems and methods which allow students to study at their own pace on an individual basis thereby providing an optimum level of challenge for all students.