



Synchronous distance learning platform: School goes home in Haemophilia

Hugo Rosales⁽¹⁾, Ismael del Águila⁽²⁾, María Teresa Martínez Paradinas⁽²⁾ and Oswaldo Trelles⁽³⁾

(1) National University of Piura-Perú; (2) Asociación Malagueña de Hemofilia, Spain; (3) Computer Architecture Dept, U. Malaga, Spain

System Overview

We present a software platform for synchronous distance learning, that makes the presence of a teacher possible in the student's house –or wherever he/she is- giving the same lesson, at the same hour, with the same classmates, through the internet. Thus the child workspace is a normal classroom, in which some students are present and some others are distance connected with an interactive presence that allows active participation of both teacher and students.

Motivation

Is your child unable to attend school today ?

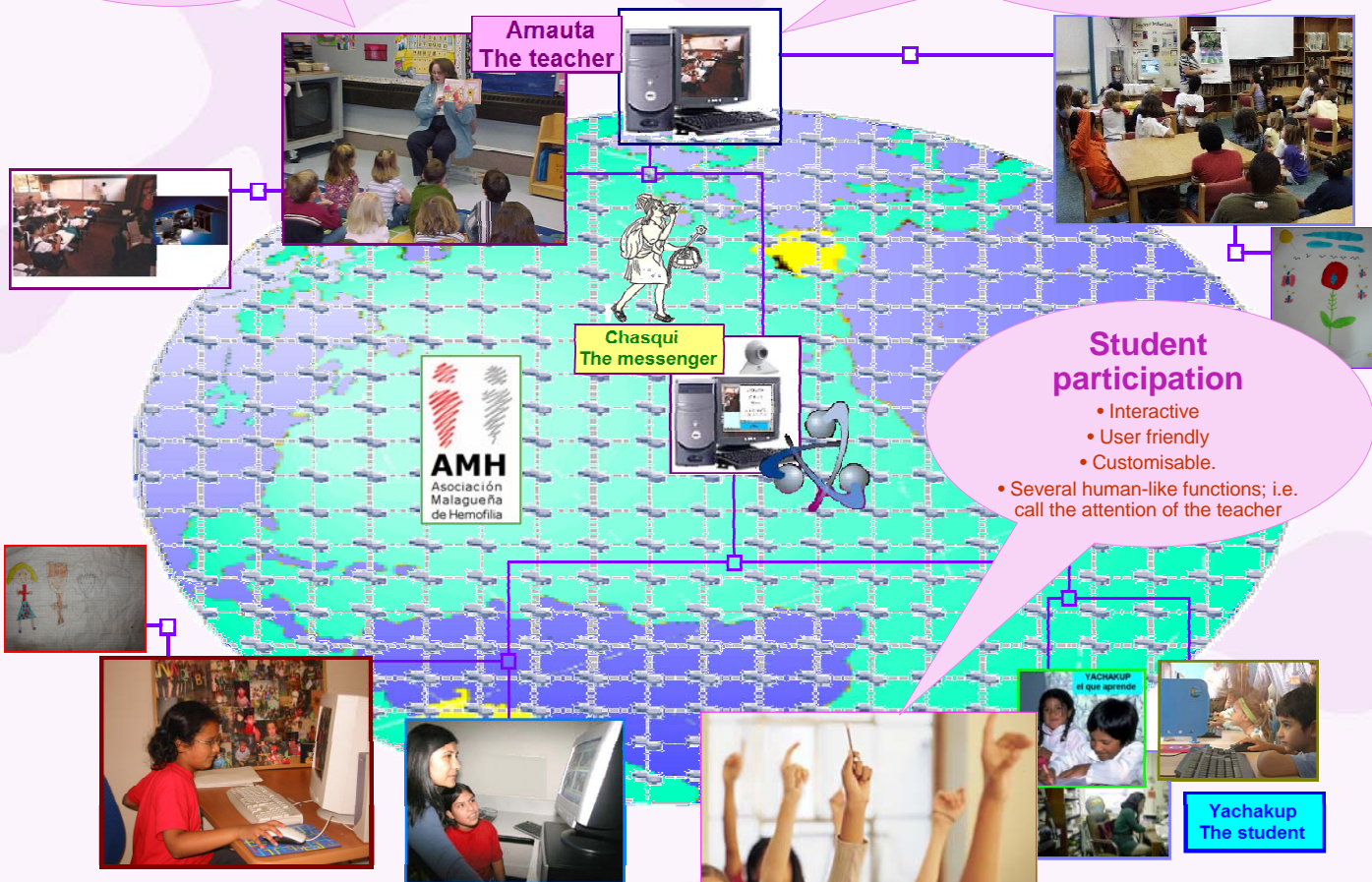
Don't worry... bring school to your home !!

Provides an interactive environment between student –teacher and classmates, in such a way to compensate for drawbacks of distance learning. Several on-line functions include:
Distribute – assign the classroom work
Voice / video / blackboard / slides
Connection control (chat / messages ...)

The teacher side

Deploys the traditional live class with on-line video broadcasting.

- Set-up the teaching room environment
- Allows / denies access to connection
- Authorizes student participation (voice)
- Distributes the work (file transfer)
- Links students to solve study cases



Student participation

- Interactive
- User friendly
- Customisable.
- Several human-like functions; i.e. call the attention of the teacher

System Architecture

Main objectives :

- Design a technological support to implement virtual interactive sessions
- Evaluate the impact of this platform in education
- Evaluate the functionality of the developed prototype

Platform functionality

- User authentication
- Data persistence and monitoring (historical record of use)
- Resource management,
- Help and training system.
- Database backend as file repository to store all interchanged information
- Support for teacher control in all communications
- Customisation of the platform visual aspect for different age levels
- User-friendly
- Simple installation procedure

On-going work

Interactive management of third-party software as teacher resources:
Power-point slides and equivalents
Electronic black-board
User-preferences and settings
Addressing the "educational perspective"
Intensive testing of the platform in real situations

Technical information

Detailed information about the platform; system requirements and user guide can be obtained at

<http://www.hemofilia-malaga.org>

e-mail : aulasvirtuales@hemofilia-malaga.org

Conclusions

This software platform was created with the aim to help persons, particularly young people, affected by haemophilia to overcome limitations that keep them far from school. We expect its use will have a positive impact with their learning and with social integration with school friends.

Public domain components such as web-browsers, electronic blackboards, on-line messaging, chats, forums, and real time sound delivery have been integrated in a user friendly environment with database historical record of use, and interface customisation for different age-levels. The participation of students, teachers, psychologists and computer-science technicians has allowed a very simple but powerful way to reinforce integration of our children in the educational circuit.