

Effective Distance Learning Through Sustained Interactivity and Visual realism

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Abstract

Distance education is an instructional program where the teacher and student are separated by physical space or time, or both. Current distance learning programs employ a variety of educational media, from fax, web, email, bulletin board or other one way or two ways asynchronous exchanges of information to high-end, room sized Interactive Video Communication systems that allow two way voice and visual communications. Here we employ the current sophisticated and powerful computer technologies to allow real time audio and video communications. We emphasize on the high interactive qualities and high level of visual realism by extending the real classroom to accommodate remotely located students. The real-time video sprites of the remotely located students are placed in the virtual classroom that is projected onto the back wall of the real classroom. The classroom view is taken by a flea camera and sent out simultaneously with voice to the remotely located students. Interaction may be initiated either by the instructor or the remotely located students in the same way as in the traditional classroom environments. The Students can ask questions and receive immediate answers from either instructor or the students in other locations. It is our goal to make distance learning an integral but unobtrusive part of proven conventional on-campus learning.