“Web-Constructivism Using Javascript”

Anthony ‘Skip’ Basiel, Dr. Matthew Jones and Dr. Kay Dudman
School of Computing Science
Middlesex University
London, England
a.basiel@mdx.ac.uk, m.jones@mdx.ac.uk, k.dudman@mdx.ac.uk

Poster/Demo Abstract
The use of the Internet and specifically the World Wide Web (Web) as a media for collaboration and problem-solving is an evolving solution to the problem of increasing numbers of students in the university setting. A variety of ‘virtual universities’ are appearing on the Web to address this dilemma. There are gaps, however, in these systems which do not meet the needs of the participants. This research examines the use of applied formative evaluation (feedback) methodologies and protocols, used between the stakeholders of a web-based learning environment, to facilitate the learning process. Principles are established to guide the learning environment designer (LED), the mediator between the subject expert (SE) or teacher and the interactive multimedia web-based design team, in creating a student-centred learning space on the web. The principles and protocols developed in this research are illustrated through the DELBERT (Digital Environment Learning-Based Evaluation Response Theory) Tutorial system. This web-based collaborative, problem-solving seminar makes use of on-line tools such as; e-mail, HTML forms, Javascript and video conferencing to promote communication through a guided-discovery delivery methodology. The case studies conducted with the system support the methodologies proposed in this poster and demonstration.