Abstract Submitted for the MAR07 Meeting of The American Physical Society

Strategies for combining physics videos and virtual laboratories in the training of physics teachers ADRIANA DICKMAN, LEV VERTCHENKO, MARIA INES MARTINS, Pontifícia Universidade Católica de Minas Gerais -Among the multimedia resources used in physics education, the most prominent are virtual laboratories and videos. On one hand, computer simulations and applets have very attractive graphic interfaces, showing an incredible amount of detail and movement. On the other hand, videos, offer the possibility of displaying high quality images, and are becoming more feasible with the increasing availability of digital resources. We believe it is important to discuss, throughout the teacher training program, both the functionality of information and communication technology (ICT) in physics education and, the varied applications of these resources. In our work we suggest the introduction of ICT resources in a sequence integrating these important tools in the teacher training program, as opposed to the traditional approach, in which virtual laboratories and videos are introduced separately. In this perspective, when we introduce and utilize virtual laboratory techniques we also provide for its use in videos, taking advantage of graphic interfaces. Thus the students in our program learn to use instructional software in the production of videos for classroom use.

Adriana Dickman Pontifí cia Universidade Católica de Minas Gerais

Date submitted: 25 Nov 2006 Electronic form version 1.4