Conceptual chains and their didactic applications in physics[1]
CARLOS ENRIQUE LÓPEZ CAMPOS, Universidad del Valle de México — It is presented the definition of graphical schemas called of conceptual dependency and their particular cases, the conceptual chains, which are useful for the representation of conceptual structures during the learning of a topic or the process of solving problems in physics. We review and we contrast their characteristics in relation to other cognitive structural models as the conceptual maps and the conceptual networks. Finally we discuss points of difference and coincidence between the three schematic models and about various possible applications of the conceptual dependency schemas and the conceptual chains, such as, didactic applications for teaching and learning, detection of conceptual faults in apprentices and as a research tool of the cognition process, showing results obtained of studies realized on the degree of difficulty of problems that were proposed to diverse populations of students.

Carlos Enrique López Campos
Universidad del Valle de México

Date submitted: 25 Oct 2009   Electronic form version 1.4