Abstract Submitted
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**Theoretical model to explain the problem-solving process in physics**[1] CARLOS LOPEZ, Universidad del Valle ee Mexico — This work reports a theoretical model developed with the aim to explain the mental mechanisms of knowledge building during the problem-solving process in physics using a hybrid approach of assimilation- formation of concepts. The model has been termed conceptual chains and represents graphic diagrams of conceptual dependency, which have yielded information about the background knowledge required during the learning process, as well as about the formation of diverse structures that correspond to distinct forms of networking concepts Additionally, the conceptual constructs of the model have been classified according to five types of knowledge. Evidence was found about the influence of these structures, as well as of the distinct types of knowledge about the degree of difficulty of the problems.

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