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Redesigning problem solving component in General Physics course. JERRY SHAKOV, JIM MCGUIRE, Tulane University — Problem-based learning has been widely used in teaching introductory/general physics courses for a long time. The role of problem-solving sessions in the learning process is absolutely critical: they give the students an opportunity to learn how to apply both newly and previously acquired knowledge to practical situations, how to put together different strategies and portions of material, and much more. Unfortunately, the traditional format used for the problem solving sessions is not very accommodative for the goal: large class sizes and limited time often force instructors to spend most of the time solving sample problems in front of the class, which leaves the students with the role of passive observers. In this work, we will discuss how one can involve the students in the process of active learning using collaborative strategies and principles of cognitive apprenticeship.

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