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A learning environment that combines problem-posing and problem-solving activities.

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Summary: We developed a learning environment to combine problem-posing and problem-solving activities. The participants learned a formal logic system, natural deduction, by alternating between the problem-posing and problem-solving phases. In the problem posing-phase, the participants posed original problems and presented them on a shared problem database called “Forum”, which was accessible to other group members. During the problem-solving phase, the participants solved the problems presented on Forum. This first round of problem posing and solving was followed by a second round of problem posing. We performed two practices for evaluation. The results showed that the participants successfully posed more advanced problems in the second round of problem posing as compared to the first. The empirical data gathered from the two practices indicated a significant relationship between problem-solving and problem-posing abilities.

Classification: U50 R20 D50 E30 R40

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