its Pearson's Correlation Coefficient with the performance ration.

The results and analysis in the previous section, shows that most students in the initial levels (1, 2 and 3), have more diverse interactions, i.e., they interact with different gamification elements, while more advanced students (level 4), focus on those interactions that significantly affect their performance. One situation shown by the data is that students in levels 1, 2 and 3 tend to interact with a gamification element named Mission. In MeuTutor, completing a mission is a time consuming task that diverts students' attention from solving problems (a task that is considerably related to the students performance).

These findings generated some recommendations to improve the learning environment, and provide guidance to students, focusing on improving their performance and interactions (more meaningful/productive interactions). These recommendations were presented to MeuTutor team. Unfortunately, we could not monitor whether these recommendations generated actual changes in MeuTutor, and we could not evaluate whether these changes improved students performance.

7. ACKNOWLEDGMENT

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