

Title: **A method to improve the understanding of the relationship between theoretical knowledge and experimental procedures**

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This work is based on the redesign of the existing experimental practices of the Basic Laboratory of Analytical Chemistry of the University of Barcelona (UB)

The reason why such a redesign is being carried out is because; as they are currently laid out, students in that course frequently encounter the problem that they cannot relate what they have learned in previous theoretical subjects to the experimental part that they carry out. In this way, they are limited to following instructions and not stopping to think about the theoretical foundations of each experiment.

In order to recommend and initiate the new practices, I had to experiment in each type of practice by making a few modifications to the experimental factors and reaction conditions to see the effect that each modification produces on the result.

At the end of each new practice, a series of questions are offered so that the student can go deeper in the discussion with his teacher about the theory behind the experiment.