



Homework Re-Dos: Reworking Problems and Explaining Errors

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Context: Out of class; Statics

Keywords: homework, reworking problems

Student Activity Time: 5-7 hours outside of class working on homework

After each class, students were asked to complete homework assignments. Students were given the opportunity to re-work missed homework problems and explain the errors.

Introducing the Reflection Activity

In a statics course, students engaged in homework assignments after each class. Students were given the opportunity to re-work missed homework problems and explain the errors. The purpose of this reflection activity was to ensure mastery of the course material.

Between class sessions, students worked individually (and/or in groups) on their homework assignments. The homework assignment was always due the next class period. The homework assignment description was posted on the course learning management system (Moodle).

After the homework was graded and returned, as a reflection activity, students were given the opportunity to re-work homework problems that contained errors. In these “homework re-dos,” students had to correctly rework the problem; briefly explain what they did wrong; and complete a cover sheet that accompanied their homework re-do. The educator graded the homework re-dos based on the following criteria: (1) the student reworked the entire problem; (2) the accompanying text included a minimum of one sentence to explain the error in the previous working of the problem; and (3) the student completed a cover sheet. Students were encouraged to redo missed homework questions earlier, rather than wait; there was a deduction if students waited until after the exam to do the re-do.

In terms of outcomes, when students rework their missed homework problems and explain their errors, there is potential for them to actually understand the material. This creates an opportunity for deeper learning to take place.

Recreating the Reflection Activity

	Description
1	Introduce and explain the homework re-dos in the first class session when going over the syllabus.
2	Remind students about the homework re-do opportunities.
3	Facilitate an organized way of dealing with homework re-dos.
4	Grade homework re-dos.

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 7.1 Course Syllabus

 7.2 Redo Sheets

In the words of the Educator: Tips and Inspiration

Configure the homework as a small percentage of the overall grade. The homework re-dos work because homework is a small percentage of the total grade in Statics, so students primarily learn from mistakes and the grade isn't the main goal. I post the homework solutions to the class learning management system a week after class, so beyond that timeframe students can literally copy the solutions and turn it in for credit. For a class where more weight is put on homework, this model may need to be adjusted.

Take the homework re-dos anytime. It's important to take the re-dos anytime and not have any barriers to submissions. I'm just glad they're doing the homework at all, and glad to reward them for the extra effort. This stance trumps my desire to have everything done on a more rigid schedule. The fewer barriers to submission, the more you'll receive.

Hire an extra grader. Having an extra grader is also helpful because in this class, there's homework due every day, as well as re-dos to grade.

What was the inspiration for the reflection activity? This reflection activity was inspired by discussions with peer educators, as well as self-invented with regards to how I would structure it as well as the grading system (outlined in syllabus).