

CHANGING ASSESSMENT FOR AN ACTIVE LEARNING IN AN ALGEBRA COURSE

CNAPPES 2021

12 Julho 2021, UAveiro, Portugal

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Description

- Civil Engineering Integrated Master program.
- 3 hours of theoretical classes
- 2 hours of practical classes
- Usual Algebra engineering courses
- 2 tests + exam to improve (option)
- Success between 50% and 60%.

Reasons

- Low success rates
- Weeks with other discipline tests
- Algebra studies a secondary task
- Constructivist approach
- Ineffective learning of previous subjects
- Permanent divorce from following subjects

Change

- Innovate assessment
- Engaging students along semester
- Additional 15% of final grade
- At least 2 problems
- Students called randomly
- Solve on the board problems assigned
- 4 questions theoretical

Intended Benefits

- Detection of difficulties
- Understanding problems of students
- Motivate students to be prepared
- Value work done along semester
- Keep up with new subjects
- Formative assessment

Results

- 19/20 - 67 students; average 11,2v
- 20/21 - 72 students; average 11,9v
- 19/20 - 67 out of 123 approved - 54%
- 20/21 - 72 out of 128 approved- 56%
- 19/20 – 1st exam 37/123 approved – 30%
- 20/21 – 1st exam 46/128 approved – 36%

Comments

- No statistical significant change in terms of approved students vs. evaluated students (+2%)
- Improved average grades of 3% (0,7v)
- Better prepared for first exam (+6%)
- Year within a pandemic scenario
- Teacher – student interaction was virtual in theoretical classes
- Global results, including those that were repeating class, were similar in the two years