Summary document

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**Title:** Feedback in Context: Using a Code Review Tool for Program Grading

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**Approach and motivation:**

**Approach:**

Code Review Tool that is Open Source and an extension on VS Code. The tool is used by Tas to add comments on the code withing a dialog box with multiple details. Once all comments are made, the report can be exported in HTML or other options for the review to be shared and it uses a template file they provide. The report has summary information, summary evaluation in `Overall Feedback` then put the results of the automated tests into the ‘Test Cases’ section and the last section is the grade for the assignment.

**Motivation**:

Providing reasonably efficient and helpful feedback, grading itself seeks to emphasize the combination of functionality, program design and code clarity. They describe that the students used to submit printouts, then TAs comments were done in textboxes but it was difficult for students to recognize the context of some comments and the importance. They started to use a formal code review tool and received good responses.

**Aim and novelty:**

**Aim**:

The goal of evaluating student work should go beyond summative feedback and the assignment of a grade. Providing reasonably efficient and helpful feedback, grading itself seeks to emphasize the combination of functionality, program design and code clarity.

**Novelty**:

They asked the students if they used this kind of method and only 18% used it before, making it a relatively new method being used in universities, that was already used in the IT industry but not in academia. Overall the approach wasn’t new in the world, but rather new when applied to the students. The other novelty is that they changed the tool a bit such that it matches the uni requirements for students, unlike in the IT industry scenario.

**How the tool was validated:**

They analysed the students experience through the **feedback** they gave. 22 responses (Spring 2021) were received and these are the stats:

* 18 % of students used it before
* > 90 % of students read the summary comments and looked at the comments on specific code segments on 4 – 7 assignments
* All of them improved their code at 4+ times

Using a **Likert** **scale** they asked the students to agree and disagree to different issues:

* 95 % agreed the feedback helped them understand the grade and the summary feedback
* 90 % agreed the feedback made them more likely to redo a program for an improved grade
* 90 % agreed the feedback helped them make corrections
* 85 % agreed it ‘made them better programmers’
* 80 % agreed it ‘made them understand better’
* 90 % agreed it was ‘more helpful than any other feedback they received’