Introduction

Writing sufficient feedback to students can be time-consuming, especially on large courses. The work can be divided to multiple teaching assistants, but this can lead to problems with the consistency of grading as well as the quality of feedback. Rubrics are scoring guides that can help to ensure consistency by providing clear descriptions of the qualities required for different grades. They can also make it faster to construct feedback by saving the grader from typing the feedback manually.

We present a new online assessment tool based on the idea of rubrics. The tool allows students’ submissions to be distributed to multiple teaching assistants who can then grade the works using a rubric created by the teacher. The system is implemented as a web application which eliminates the need to install anything on the workstation. The tool is a successor of the ALOHA system.

Rubyric

Grading process in Rubyric has five steps (see Figures below for more information):
1. Teacher creates the rubric
2. Students submit their work
3. Teacher assigns the submissions to teaching assistants
4. Teaching assistants grade the submissions
5. Students get the feedback by e-mail

Workflow in Rubyric

1. Creating the rubric and the phrases (Teacher)
   - The rubric is created with an easy-to-use online editor. It consists of the evaluation criteria, feedback phrases for typical cases, quality descriptions that guide the graders, and the grading scales.
   - The phrases are presented as lists to support any number of phrases.
   - The rubric can be divided into multiple sections that have different weights when calculating the final grade.
   - Grading scales are fully configurable by the teacher.
   - The electronic rubric has the following advantages compared to a paper rubric:
     - The number of alternative phrases is not limited.
     - Grade and feedback are separated.
     - Feedback can easily be personalized.

2. Students submit their work
   - Students submit their work electronically to the system.
   - The submissions can be anything from pdfs with essays to zip files containing source code.
   - Group work is supported. The group member, and keeps track of the grades of each student.
   - Rubyric is not a course management system. Students come to the submit page via a link on the course homepage or a CMS.

3. Submissions are assigned to teaching assistants to grade
   - Teacher can distribute the submissions to multiple teaching assistants.
   - Peer review is also supported. In this case, students are shown the teaching assistant’s interface (4.).
   - Teacher can monitor the progress of the grading process and view, edit and e-mail feedback online.

4. Submissions are graded using the given rubric and a set of phrases
   - Teaching assistants can open the submissions assigned to them and construct feedback using the prewritten phrases.
   - When a phrase (on the left) is clicked, it is copied to a text area (on the right) where it can be freely edited.
   - There are separate text areas for strengths, weaknesses, other comments.
   - A grade is selected at the end of each section.
   - After every section is graded, the feedback texts from all the sections are combined into a single text that can be edited as a whole.
   - The constructed feedback is sent to students by e-mail.

5. Students get the feedback by e-mail
   - Teacher can send the feedback by e-mail to students.
   - Teacher can send feedback for a single submission at a time or for all submissions at once.
   - Teacher can send feedback for all submissions at a time.
   - Students get their feedback by e-mail.

Experiences

Rubyric has been used at Aalto University on a total of twenty courses since its launch in Fall 2008. A user satisfaction survey was conducted, and the results show that graders find the tool useful and think that it increases the amount and quality of feedback [1].

References


Rubyric is available as open source software at http://svg.cs.hut.fi/Rubyric/