Faculty Grading Experience Project

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Project Summary

The Academic Technology Design Team (ATDT) is learning about the faculty grading experience in the new Canvas Learning Management System (LMS). Canvas should overall offer an improvement over Desire2Learn, but some instructors will lose functionality in the gradebook, including the use of advanced grade item formulas.

Aisha Jackson, the Associate Director for Academic Technology Applications (ATAP), asked the ATDT to review and identify potential applications that could: 1) offer advanced formula grading capabilities and 2) integrate seamlessly with Canvas. The ATDT would then select a tool to pilot with CU Boulder faculty, while identifying any other faculty grading needs that OIT could better support through software and training. The project would conclude with a report on the pilot and a final recommendation to ATAP on whether to implement the tool at CU Boulder.

An early review, described in more detail below, quickly revealed that few grading applications on the market integrate with Canvas while offering more advanced functionality. The project therefore will not include a technology pilot, but will continue with the discovery work to better understand faculty grading needs and practices. The goal of the project is now to document requirements for a potential future grading application, and to make recommendations for improving the faculty grading experience, including OIT support.

Background

OIT has been aware for several years that some faculty have been dissatisfied with the primary grading tools at CU Boulder, namely D2L and the Registrar’s Web Grading system. This dissatisfaction reaches OIT through a variety of channels, including survey responses, ServiceNow cases, and verbal commentary during one-on-one consultations with Learning Technology Consultants (LTCs).

The 2017 OIT Proactive Survey, for instance, offered faculty two opportunities for free response feedback to questions about general improvement. Mentions of grading or the gradebook were sparse, but deeply negative. Question 21 asked, “Is there anything that you think we should know that is important to improving the level of service we provide or the types of services we provide?” The question received responses such as “The D2L grade book is a horrendous disaster” and “D2L is just difficult to use. The gradebook, in particular is the worst.” Question 22 asked, “When thinking about the future of our university, is there anything that OIT should be considering to ensure that our institution remains competitive and cutting-edge?” This question received responses such as “Please fix the gradebook issues on D2L” and “I would get a new gradebook system.”

Desire2Learn’s gradebook is feature-rich but unintuitive. Though it offers custom grading formulas and other advanced capabilities, many faculty find it overly complicated, difficult to pick
up, and too time-consuming to use. For faculty who keep their own offline gradebook and use D2L’s to post grades to students, the import-export tool requires tedious steps that lead to errors if not followed exactly each time.

To address these issues, before the conclusion of the LMS Evaluation project and the decision to migrate to Canvas, ATAP conducted a review of four major gradebook applications that might integrate with Desire2Learn. This review did not identify any of the four as good candidates for a pilot, due primarily to lack of ability to fully integrate with LMSs.

Now that CU Boulder is migrating to Canvas, the application review can be revisited and expanded to address the potential loss of functionality compared to D2L’s gradebook.

Software Search & Review

In late Fall 2017, the ATDT began with the previous ATAP report that reviewed Thinkwave, Learnboost, Gradescope and Jupiter Ed. In addition to this, the ATDT searched Canvas’ Edu App Center for all grading-related tools that already integrate and performed internet searches and identified lists published on educational websites. Finally, the ATDT searched and reviewed the Canvas user forums to find any additional grading tools already in use by other Canvas users. Fifteen applications were identified and reviewed based on functionality described in promotional materials and white papers, as well as text and video tutorials when available. None of the tools identified offered a seamless integration with Canvas in combination with the advanced functionality needed.

First, most do not integrate in any way with the major LMSs. Many target schools and educational systems that do not have an LMS already in place. Integrations they do offer tend to be one-way into a Student Information System (SIS), or to regional school systems. Some, such as Thinkwave and Learnboost, integrate with Google Apps and Google Classroom, but no others.

Second, many tools were developed primarily for K-12 education. This is true of PowerSchool, Gradelink, MyGradeBook, and several others. This is reflected in the functionality and, sometimes, the aesthetics. Features focus on report cards, parent portals, and grading schemes for regional assessment standards, rather than advanced formulas or flexible configurations for niche grading preferences.

Third, the more advanced tools available, such as Jupiter Ed, PowerSchool, and McGraw Hill’s Engrade, actually appear to be developing software ecosystems that directly compete with the major LMSs, rather than integrating seamlessly with them. For instance, Jupiter Ed offers learning analytics, discussion forums, student messaging tools, quizzes, seating charts, and more. PowerSchool offers analytics dashboards and media-rich content tools for online content.
Fourth, some tools, such as Gradelink and MyGradeBook, have outdated aesthetics when compared with Canvas, and would decrease the visual experience for faculty even if they could improve the range of features available.

Finally, the gradebook apps available for mobile and tablet platforms, such as GroovyGrader and Gradebook Pro, function as standalones. They are aimed at individuals who would use the app on its own, or as a spreadsheet that would require manual import and export to work with any LMS. They do not integrate with LMS grading tools, which was a key project requirement.

**Gradescope**

One platform, Gradescope, does integrate to some degree with Canvas. Gradescope’s primary purpose is to enable digital grading of assignments that might otherwise be graded by hand, such as worksheets and essays submitted in hard copy form. Students or their instructors can upload image or .pdf files of the completed assignments to Gradescope, which instructors grade online using annotations and a simple, flexible rubric tool to assign scores.

Despite its integration capability, Gradescope has not yet been selected for a pilot with CU Boulder faculty, or for campuswide implementation by OIT. First, its annotation feature, a major selling point, duplicates what is already available in Canvas’ Speedgrader tool, as well as Turnitin, a service already offered by OIT, and would therefore not clearly translate into an enhancement.

Second, its integration with Canvas is minimal and does not work within Canvas itself, as Turnitin does. Instructors would need to use a separate Gradescope account to build, maintain, and grade assignments. They would also need to build shell assignments in Canvas to generate the grade items that will eventually hold the grades from Gradescope, requiring faculty to do the same work twice. Syncing between Gradescope and Canvas is also manual. Faculty would be required to update the Gradescope roster whenever their Canvas roster changes, and would need to push all grades to Canvas manually as well.

Though this project focuses on the faculty experience, it is worth noting that students would also have to work in an additional system both to submit their assignments and to receive feedback such as annotations, comments and rubric scores. In Canvas they would only see a final assignment grade. This could, then, conflict with campus’ Unified Student Experience (USE) project, which is a response to negative student feedback about logging into and using too many systems.

In short, the improvements Gradescope offers are mostly available already within CU Boulder’s Canvas or in other tools that integrate seamlessly. Any enhancement Gradescope would offer would be counteracted by the duplicate efforts required to make use of the software with Canvas, and would not offer net improvement to the faculty grading experience.
This could be revisited in the future if Gradescope ever develops a robust integration with Canvas that would not burden faculty and students with duplicate work and additional systems to access. If it were to offer more desired functionality, or if SpeedGrader or Turnitin were for some reason not available, that could also merit reconsideration.

### Identifying Campus Needs

To ensure a better understanding of faculty grading needs, the ATDT reviewed results from the LMS Faculty Survey, conducted in OIT’s recent LMS Evaluation Project. 1,599 faculty responded to the survey. The survey included two free response questions that were used in this analysis. This initial analysis has informed all subsequent data-gathering and observations.

First was a question preceded by satisfaction ranking of LMS tools such as Dropbox, Email, Groups, etc. After this ranking, the respondents were asked the following: “Please use this space to describe why you are satisfied or dissatisfied with the tools that you use that were not listed in previous questions.” This statement gathered 407 responses, 74 of which related to grading practice or gradebook use. The preceding ranking referred to any LMS the faculty member used, but most responses addressed D2L specifically.

The second question was more open-ended, and asked, “When thinking about the upcoming review of LMSs and the possibility of moving to another LMS, is there anything you think should be considered?” This question gathered 799 responses, 73 of which related to grading practice or gradebook use.

This made a total of 147 free response comments that related to grading; 140 of these requested some kind of improvement in the current gradebook. Of these, 23 requested a less confusing gradebook than D2L’s; 22 requested a better import/export feature than D2L’s; 13 requested integration with the Registrar’s Web Grading tool; 8 requested a less complex experience than D2L’s; 8 expressed dissatisfaction with D2L’s usability; 7 requested a less time consuming or more efficient grading system; other comments requested highly specific or individual modifications based on personal preferences, including requests for LMSs such as Canvas, Blackboard, and Moodle. Further analysis of these comments is underway and will guide the project final report and recommendations.

Two of the most popular requests above are already being addressed by the migration to Canvas. Canvas offers a much simpler import/export feature. Faculty who keep their own gradebook records outside the LMS should find it much easier to import and export files. Those who use iClickers heavily will no longer have to download a template and upload scores manually. Additionally, the ATAP team is already developing an integration between the LMS and the Registrar Web Grading system, which is on track to be implemented in May 2018.
Faculty should also find Canvas’ gradebook less unnecessarily complex. Whether or not they find Canvas’ gradebook less confusing is unclear in the short term, although long term should be an improvement. The Canvas gradebook is more streamlined, simplified, and consistent when compared to D2L’s, but it is structured very differently from D2L’s, requiring faculty to generate grade items by building their assignments first. There may be a learning curve before faculty adjust to the new process.

Remaining Project Work

Spring 2018 will primarily focus on faculty experiences with the Canvas gradebook, specifically, identifying how faculty are using the tool, their pain points, and best practices with grading.

The ATDT will partner with ATAP’s new LTC Service Manager, as well as the OIT and Canvas helpdesks, to track incoming requests for help with the new gradebook. The ATDT is also conducting observations of Canvas trainings offered to faculty in Spring 2018 to identify common questions or areas of confusion. This includes Canvas overviews, hands-on workshops, iClickers trainings, and any grading-specific Canvas trainings offered throughout the semester. The ATDT will also observe 1:1 consultations between faculty and the ATAP team to understand faculty needs in greater depth.

Based on patterns that emerge from this tracking and observation, the ATDT may follow up with individual faculty, or groups that have special requirements with grading, to better understand current practices and how OIT might improve the faculty grading experience.

The ATDT will also review grading applications already in use on campus in more depth, and evaluate them according to the needs and preferences of faculty.

This will culminate in a report to ATAP in early Summer 2018 describing current faculty grading practices, identifying pain points and unmet needs, and recommending applications and/or strategies for faculty to improve their grading experience and for OIT to better support faculty grading on the CU Boulder campus.