

Providing Immediate Feedback With Prairie Learn

Matthew Butner
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Students Benefit From Immediate Feedback

1. Students receive feedback while content and concepts are still fresh
2. Reveals failings/misunderstandings early so students can seek help to remedy them
3. Incentive to continue learning if they can reattempt the problem for a higher grade
4. Students can practice as much as they want

Instructor Benefits

- Only have to “grade” a problem once
 - It might take longer to create this problem than grading a few dozen instances of it by hand but that time will be earned back with interest the more times you earn it

Problems With Canvas

- Highly limiting interface for creating questions
 - Can't ask the questions the way you want
- Trouble handling whitespace
- Potentially correct answers are disallowed
- Randomizing questions must be done by hand for most questions types
- Students must reattempt entire assignment to reattempt one problem

“Fixes” Within Canvas

- Highly detailed, highly restrictive prompts must be given telling students how to enter their answer
 - Someone **WILL** mess this up
- Every question becomes multiple choice

Prairie Learn

- <https://www.prairielearn.com>
- Developed at the University of Illinois
 - Made by instructors for instructors
- Create a template for a question that can be used to generate unique variants for each student
- Can control how many attempts on a particular variant each student gets and how many total attempts on a question they get
 - Can start to take away points after too many attempts
- Can create super customized questions or use common building blocks to make your own question.

Student Response

- Highly Positive: Favorite part of the class is seeing everything turn green when I get it right
- High Office Hour Turn Out
 - Students come for help when stuck or have questions
 - Works best if you limit the number of attempts a student gets on a problem
- Reduces cheating
 - Each student has a unique exam specific to them

Recommendations

- Pick one course you will be teaching the following year to move onto Prairie Learn
- Start simple
- Reach out for help or if you have any questions
 - [Prairie Learn Slack](#)
 - [Prairie Learn Office Hours \(currently Thursdays 1 - 2 PST\)](#)
 - I'd love to talk to you about it mfbutner@ucdavis.edu
 - Many CS students looking for projects that would love to help you build your questions
- You can get a **free trial** for a course but you can test and build things on your own computer before you request a hosted course space

Conclusions

- Students benefit immensely from immediate feedback
- Prairie Learn let's you ask questions the way that you think is best
 - I've only scratched the surface of what it can do (rich statistics, student activity logs to help detect cheating, assists with education based research)
- I think this is where the future of education is heading
 - University of Illinois has a Computer Based Testing Facility where many of their exams are administered through Prairie Learn
- It is a longer term investment