Course: Performance assessment in the digital classroom
Assignment 1: Gradebook evaluation
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Item analysis

#	Description	Amount of assignments		Points		Percentage
		Total	Weekly	Each activity	Total	
1	Weekly quiz	18	1	50	900	38.30%
2	Homework assignment	18	1	20	360	15.32%
3	Discussion post + replies	18	1	5	90	3.83%
4	Graphing assignment	4	0.22	25	100	4.26%
5	Unit-project	4	0.22	25	100	4.26%
6	Unit-test	4	0.22	100	400	17.02%
7	Final exam	1	0.05	400	400	17.02%
	Total (excluding extra credit)	-	3.71	-	2350	100.00%
8	Attendance	18	-	5	90	3.82%
	Total (including extra credit)	-	-	-	2440	103.82%

Table 1: Assignments and their relative weights

#	Description	Grading type	
		Computer graded	Human graded
1	Weekly quiz	X	
2	Homework assignment	X	
3	Discussion post + replies		X
4	Graphing assignment		X
5	Unit-project		X
6	Unit-test	X	X
7	Final exam	X	

Table 2: Assignment and the way they are graded

Computer graded	Human graded
87.66%	29.36%

Table 3: assignments and the weight of different grading types

Course evaluation

Student engagement
Given the way in which students are assessed, the potential for student engagement is not that high. When looking at the different types of assessment that are used only the discussion posts + replies on posts of others require some form of interaction. All the other assessments do not require interaction

with other students. If this course is taught with only pre-recorded lectures this is the only moment when student interact with each other. Although this is probably not the case (given one can attend a class) Furthermore, the discussion posts are awarded the lowest percentage of points (around 3%) which does not gives students an incentive to complete this part. It is even possible for students to pass the class without any interaction. If a student chooses to not attend any class and does not participate in the discussions he/she still can pass the course (no cut-off score is given but it is assumed it will be lower than 97%). Therefore, it is advised to do one or more of the following: make attendance obligatory, increase the points awarded to participation in discussions, add other types of assessment (or replace non-interaction type of assessment with more interactive one) and/or make participation in the discussions mandatory. This will increase the engagement of students.

Intended consequences

The distribution of the points available for each type of assessment implies a strong focus on the quizzes, unit tests and final exam. Awarding them a high percentage of points seems to be the result of an intention of relieving the teacher as these are all computer graded. A consequence of this decision to relieve the teacher is that he/she can spend extra time on helping students with extra needs or gifted ones. Another possibility it allows more students to take part in this course as the teacher has to manually correct fewer items.

Unintended consequences

The distribution of points keeps the possibility for some unintended consequences. One of this is that student will not take part in all types of assignments. The discussion posts + replies, graphing assignment and the unit-project are in particular susceptible to this as together they make up only 13% of the possible points. This loss of points can be reduced to only 9% by attending in the classes.

Assessment philosophy

The assessment philosophy for this class seems to be focused on individual merit. This is the result of not including any kind of group activity in the course (although it is hard in virtual environments it is possible). Furthermore, the focus seems to be on reproduction instead of real-world application of algebra. Although there is an assignment in this category, it is awarded very few points and is not necessary to completed to pass the course. Another aspect of the course philosophy with regard to testing seems to be that it favors a frequent testing policy. Students have to completed multiple forms of assessment each week.

Overall reasonableness

Overall, the course seems to be somewhat reasonable for the intended grade level. Two things that bother me regarding this are both related to the relative high number of assignment/week. First, the number of different assignments might take too much time if the student has multiple other courses in the same period (also depends on the number of hours of instruction). Second, the different types of assignment might confuse the students. Almost no week is the same (students need to hand in different

things each week). This is especially confusing if the class is followed in parallel with other classes that have a similar structure. Besides these points the course is reasonable to me.

Concerns for special populations

A concern for gifted students might exist as there is no possibility to do something extra besides the extra course load. The only extra credit that is awarded is for attendance which might not be very suitable for this group (they might stay away from class as they already get it). However, this extra credit might be useful for at risk students who possibly can use the extra motivation.

Overall recommendation

The recommendations for this course are the following:

- Add more interactive elements to this course or replace less interactive elements to increase student engagement (see engagement section)
- Increase the percentage of points of the discussion, graphing assignment and mini-projects to avoid these are skipped as they make up only a small percentage of points (see unitended consequences section)
- Decrease the number of assignment for each week. The relative high number of assignments might confuse students (see reasonableness section)
- Add some extra challenges for gifted students to keep them engaged throughout the 18 week period (see special population section)