

## Scaling Student Assessment Podcast Series

### [Episode 6 – Scaling Alternate Grading with Trevor Rivers](#)

#### Intro

Trevor Rivers: I guess where my starting point is for alternative grading is, is I don't care the path that they get to. As long as they learn the material. Now, other aspects of being a student is and this is discussed, I think, with a lot of people and like large online courses is is time management. Right. And students don't necessarily have the best time management.

But is that what we're doing for the course. Right. Is that part of the curriculum is they are needing to manage time or.

Drew Vartia: Hi I'm Drew Vartia. I'm a documenting learning specialist here at the center for Teaching Excellence at the University of Kansas. This is the Scaling Assessment podcast series, and this is episode six. Alternative grading is an umbrella term for reducing or eliminating grades, points, or other vogueish indicators of performance in favor of providing enhanced feedback and alternative grading strategies include things like upgrading or contract grading and several others, and the underlying hypothesis, which happens to be well supported, is that extrinsic rewards tend to distract students from what's important and reduce learning.

Curiosity in those kinds of things, things that we care about. So learning in these models, these alternative grading strategies is rooted in a more meaningful and robust practice and feedback cycles. So our question today is what are the challenges of alternative grading in larger classes, and which of them seem most addressable? Joining me for today's conversation about this is Trevor Rivers.

Trevor, would you tell us a little about yourself?

Trevor Rivers: I'm Trevor Rivers, I'm an assistant teaching professor in the undergraduate biology program here at KU. I've been here since 2013, where I came in teaching the second biology for non-majors course. And then when the assistant teaching professor line was born, I moved over into that role instead of a lecturer slash academic program associate. So I've got a lot of background with teaching classes but also advising students.

Drew Vartia: Fantastic. Well, thanks for being here and talking with us. Now, biology tends to have some pretty big courses in it intrinsically, and that is probably increasing at the moment. Could you tell us a little bit about the course that you are using or considering using alternative grading in?

Trevor Rivers: I'm probably going to be planning on incorporating alternative grading in any course moving forward, but the one that I'm really focusing on right now is Biology 100, which is the non-majors biology course that fulfills a core goal in the fall. It has about 800 plus in-person students in a single room. This is the small semester where it's about 640 plus.

Trevor Rivers: Another between 150 and 300 students online. It's mainly populated by people going into the nursing or exercise science, or just meeting their general science education course for graduation purposes. Wow.

## Scaling Student Assessment Podcast Series

Drew Vartia: So that's a big population, and it sounds like their interests can be fairly varied. Not necessarily all rooted in biology. Can you say anything about maybe the typical class? Are they freshmen? Sophomores? Yeah. Juniors.

Trevor Rivers: Probably 70% of them are first or second-semester freshmen. And they're so they're at the same time learning how to student as well.

Drew Vartia: Right.

Trevor Rivers: Overall, not just take the course. So this course has gone through a lot of transformation. many props to Chris Holder and Tara marriage, who did a lot of the work in previous years. I co-teach with Chris in the fall, and then I do it solo in the spring. And the way the course is structured is we are limited by topic and some ways because of the Kansas Board of Regents, they have to have that consistency across all the universities.

But within that, I think there's quite a bit of leeway in terms of how we present and then the details that we present within those. And so I think it's a it's a great gateway course into maybe trying to pull in some more of these alternative grading methods into larger scale classes. In the class we've got groups that they are assigned to that they are doing in class group participation.

Every class. They do not have to do any participation with their groups outside of class, but it's always encouraged at that point. And so they've got no exams, which is a bonus for thinking about alternative forms of grading. They have quizzes that are after every lecture or class, and they've got some what are called exploratory assignments where they delve into the real world examples of what we're covering in class.

Drew Vartia: So that's great. It's really good. So in terms of, you know, this podcast and you touched on this pretty directly, this assessment piece and thinking about alternative grading. So that's two populations. I think what I'm hearing there's about 600 live this semester and then another couple hundred ish, give or take 100.

Trevor Rivers: That's about right.

Drew Vartia: Online. Yep. So what type of alternative mechanisms do you envision using so that you can see the progress students are making in their learning?

Trevor Rivers: Right. I do think that the online and the in-person do have their individual issues with regard to this, because the online course is an asynchronous course that, does have some interactions with students where they are working together on discussion boards for things. But I think it could be better at this point with the 600 students with the alternative grading idea.

The issue is scale and numbers and feasibility. So even if I gave one minute of feedback, for example, for an assignment, right, with 600 students, that's ten hours of work, right? And that's just one potential assignment. Now, granted, I do have an army of utas and gta's that are helping with this. It's not a solo project, but I think the idea of trying to figure out a way that students could get meaningful feedback back on the scale is kind of the Achilles heel of of working this in such large classes.

## Scaling Student Assessment Podcast Series

but I do think it's possible, I think that there are some avenues online. Canvas, for example, has a mastery pathway in there that I am working with, the center for Online and Distance Learning, to try to create a module that will be able to push students into different, I guess, sub categories, in which those that need more time and effort on a topic can spend that time and effort on it, and then still be able to learn the material by the end of the semester.

Drew Vartia: So this is sort of an adaptive or a differentiated approach. It sounds like, yeah.

Trevor Rivers: It's not adaptive learning. Like, say McMillan has where you get the question wrong and then it'll take you down to the subcategories behind it. It's more of the idea of if you get, say, a 90% or above, you are in this category and these are what you need to do, because obviously the at least the formative assessment is showing that you've got a decent grasp of the subject.

So of course, that means that the first assignment or quiz has to be representative of their knowledge base. So that's the first thing, right? This creates the assignment that'll actually work, especially if they're online assignments avoiding the copy paste or googling the answers. Right.

Drew Vartia: That's right. Yeah. That can lead you, into trouble. If, you know, you have this differentiation and you're doing your copying and pasting because you want to look shiny and that doesn't tend to work out right.

Trevor Rivers: And the other difficulty is like, you hit the nail on the head where they have different interests other than biology. And so, this trying to move it from extrinsic to intrinsic motivation is kind of a unique challenge, I think, for the non-major scores. But I think it's possible. And I think alternative grading is the way to get at that to try to get them away from just points.

Drew Vartia: Yeah. So, along those lines, I mean, do you have an ideal sort of scenario for what that might look like in this course? You know, if you didn't have any sort of logistical hurdles, what would you want to be doing?

Trevor Rivers: So, I'm currently trying to build a module from start to finish that I'm going to actually survey the students of the in-person one. Yes, I'm giving extra credit, and I know extra credit is not ideal for alternative grading strategies. I get that just to have them test-drive it. So, for example, I'm doing it on evolution as my first module.

So, I want to have one module on the mechanisms of evolution which means like natural selection, drift gene flow, mutation and then have the relatively robust quiz. Right. They can watch the videos, first read the material, then they take the quiz. Once that quiz is completed, they are pushed into one of three different directions. Right? So, if you have 90% or above, pick one module that you struggled with the most and we're going to go a little bit deeper with, and then you can do some self-reflection.

If you have a up to a 70%, then you'd pick two. And then if you have below that for example, then you've got to do all four of the modules. Okay. And then the next thing would be self-reflection for that. So personal feedback I think with this. So once they complete those then go back to the quiz and say this is what I got wrong on this.

## Scaling Student Assessment Podcast Series

And this is why I thought this. And now I understand this. And so this would be pretty much an ungraded thing, but forcing them to go back to that original quiz and identify what they got incorrect.

Drew Vartia: That can be a really powerful tool in terms of putting eyes on student learning progress. That kind of divides the task into pieces, at least at this stage. Right? So there's this sort of automated process that you've built yourself, but then this reflective piece is also a place that you can look for student progress and maybe even the more meaningful version.

And that would end up being sort of text based. Right. And do you have any, any sense of strategies that you might adopt for figuring out how students are thinking about certain things or thinking about their own learning or processing all of that textual information that you'd end up with.

Trevor Rivers: Maybe the other aspect is it doesn't necessarily have to be text based, too. There are options for audio or video that people can put up to if they're more comfortable talking, talking their way through it. If writing is difficult, the big key that we run into at this point is we still have to deal with giving them feedback on this.

Possibly we could just say, yep, you've done it, you can move forward, or we can do some feedback. And one of the feedback methods could be, and I probably would venture to say that that's where like a greater like a GTA might step in and do this. If I'm not able to do it myself. But then there's also the option for peer feedback where they can submit something, and then the anonymous student can respond to that submission as well. Possibly.

Drew Vartia: I can think of a third option, and it's not I want to be clear like this is not, robust or ideal, but similarly to the way that you're sort of parsing student into track based on the kind of support that they might benefit from. You could also imagine feedback tracks that divide students into, different groups based on the type of feedback that might best support their learning.

So you can say, you know, if you were sort of within this range or your feedback on the self-reflection was this, you know, let me offer this to this group. You know, if your narrative reflection kind of had this flavor, you know, here are some things that you might consider going forward that might help you.

Trevor Rivers: Yeah, I agree, and I think in canvas itself there's a way to create comment libraries. Okay. That yeah.

You could potentially just do that and just click and go with that. I also when searching by the way if you look for scaling on large classes, they talk about 100, you know 100 person per class, maybe a couple of few hundred. When we're talking about 800, I think it should be called something rather than large classes like Jumbo or Mega class.

Drew Vartia: yeah. You are you are entering unknown waters. Yeah I think yeah, right.

Trevor Rivers: But there are ways that people are using Excel and Mail merge to do kind of the same thing where you download the grade book and you can bin the people within that, that are within that category. You can write a or even set it up where it's like, hi, drew, right where you have the mail merge. So would be a little bit more personalized, which, which could be a good thing.

## Scaling Student Assessment Podcast Series

And saying, here's what you did with this. You did this. It may be worth you pursuing X, Y, or Z a little bit more for your next one, but you're on the right track. Yeah, or you did a wonderful job. This is why you did a wonderful job. I think feedback is probably magic when you're just saying, great job.

That's that's not useful.

Drew Vartia: No, that's not useful.

Trevor Rivers: At least saying you did a great job because of this. Yeah. Is where you're building that.

Drew Vartia: You're the behaviors that you need to keep doing because they work.

Trevor Rivers: Exactly. And students are being heard at that point too. Yeah.

Drew Vartia: So yeah. Great point. So you had before derailed things. You had touched on a couple of other, you had touched on a couple of other ways that feedback could play out before. I kind of sidetracked us. Could you maybe talk a little bit more about, what you had in mind there?

Trevor Rivers: The couple of things. One is going down and really embracing the new generative I where, try to get students to prompt ChatGPT to discuss a topic and then write their critique of that, and then have that open up to peer review from other students.

Drew Vartia: Oh, yeah.

Trevor Rivers: And sort of how they received it, how they found at least one part useful to their own question. And then another question. It's like, yeah, the other issue, I think if you go down the alternative grading pathway is the split between people who like rubrics and people who hate rubrics. Sure. Right. So if you look at like Alfie Khon and he's an anti-rubric person, because it's the argument is you're still putting a quantifiable thing where they're just going to try to reach that, deal.

Trevor Rivers: I it's really hard I think in, in terms of peer feedback, you probably want at least some bit of rubric to, to help guide them or maybe have some practice sessions.

Drew Vartia: Yeah. So, you know, in terms of a rubric I guess, and this is kind of like a spitball comment, you're putting a box around learning. Yeah. Right. And that cuts off creativity.

Trevor Rivers: And it's going back to extrinsic again. Some.

Drew Vartia: Yeah it does. And I think when you're talking about students though evaluating other students that box to your point can be a really helpful starting point with room to maybe rely on it less and less as they gain familiarity with evaluating each other. Right. But yeah, we can't really push them off the cliff and be like, well, you know, figure out what makes something good and what doesn't.

Trevor Rivers: Right? And I was thinking like, I wonder if just numbers like, instead of just one person evaluating one other person, maybe you have to evaluate three other people, and maybe the person who's reading those would get a little bit of variance within that to see as well. So one student wouldn't get somebody who just doesn't care and be like, good job, right?

## Scaling Student Assessment Podcast Series

I see the the range of what's acceptable at that point because, peer pressure is an incredible thing you can leverage.

Drew Vartia: It's real. Yeah. A different thought on rubrics is that rubrics come in many flavors. And I think typically when we say rubric, what people have in mind is what you might call a specific analytic rubric. Right. So there's sort of a dimension that's specific versus general. And there's a dimension that is analytic versus holistic. And so that there are actually a lot of ways that you could structure a quote-unquote rubric that aren't necessarily tied to points and that are instead tied to categories of categories of things that you might see in student work, whether you deem those as good or bad or how you place judgment on those is, not quantified.

So you might have categories like the ideas here are really good, but this would benefit from reorganizing. Right. And so maybe a student has that opinion of another students work and they circle that. But then there's also a comment that says I really liked your sources. And I checked one of them out. You know, keep finding material like this because this is good.

You know, circle that one. so it's not a scale of one, two, three, 4 or 5, you know, you know, grammar and spelling and organization. And is there a thesis statement? You know, it provides, a bigger conceptual picture about what they think their peer did.

Trevor Rivers: Yeah, I like that. I mean, because, again, it's putting things into boxes, like you said, right? Is one of the first things that's going to inhibit intrinsic motivation. Yeah. I think yeah. For it.

Drew Vartia: So and you know, even this approach still kind of puts some boxes in things. You know, you're having some choose categories or some give.

Trevor Rivers: Some guidance, I guess. Right. Yeah. So,

Drew Vartia: I think it could be really powerful to take maybe that model and then pair it with something that's open ended. Right. Like, okay. So you chose these things. Is there anything else that you would like to say to your student colleague.

Trevor Rivers: Right. And that's why I sort of thinking about them going to ask a question of their interest.

Drew Vartia: Yeah. Yeah.

Trevor Rivers: ChatGPT, for example, or some other source that they're going a little bit deeper with. Again, it's for me, it would be completion with, you know, just an honest attempt I think is the good point for me. The other thing that I want to do with this is to give students a bit of a choice to with where they can go.

So when doing the Diversity and Equity group last year, you know, making sure that students are able to find representation, for example, is a really good thing. And so having a bit of a choose your own adventure for the last assignment, say, you know, choose one of these 4 or 5 exploratory assignments. And here's a little synopsis of what this is about.

## Scaling Student Assessment Podcast Series

And then you just find the one that you're really interested in. I think would help with the intrinsic motivation too, because they're choosing sort of that. Yeah. Assignment at that point.

Drew Vartia: You envision that as something that is on their radar from the start, and they know they're working toward.

Trevor Rivers: So? I think transparency is yeah, utmost importance for that. So yeah, it would be clear with what they were going for. Now, another thing that I'm looking to try to do, and I'm not sure where we're at with being able to automatically do this, but we also have to realize that not every student wants or needs to get an A in the course, that they may just be wanting to get their C for their degree, and that's their choice.

There's no judgment for that. And so being really clear, and I think this is more of the kind of the specifications grading sort of thing where it's like, if you do this, this and this, you would get this score, right. So for me, it would be if you take the quiz and you do nothing else, that's your quiz score I guess.

but if you do the quiz and you do the modules and you do the feedback, then that would be an if you didn't do anything else that might be considered. Okay, not amazing. But for those students that need to make a choice at that point, they could say, I can stop here and this will be my grade, and they would be able to predict what was going on for their overall course grade at that point.

Drew Vartia: This would be a good time to mention a couple of things. Even with these alternative grading strategies, as there is some ultimate final grade that has to be assigned at the end of the semester. Some of these alternative grading methods involve negotiations with the instructor. Some of them involve, like you were mentioning, buckets of things. You know, if you get to this level or complete so many of these items in this category and so many in this other category, etc., you know, that'll get you to, to this final grade.

Trevor Rivers: Right? And so still pushing that towards the extrinsic again, I get that. But it's better in some ways.

Drew Vartia: Yeah. Well I, I just wanted to clarify for listeners who aren't familiar with this alternative grading idea that we don't leave them with blank transcript. Something does have to happen at the end because of requirements by the registrar, etc., right?

Trevor Rivers: I mean, how many places in the country do that? I know Evergreen in Washington didn't have a grading policy. There's some place up in Michigan possibly, that we're doing that. But one thing about that is they did find that, say, students that went to those ungraded places did just find in, you know, post graduate education. Yeah, sure. That so I mean, there's really no evidence that says grades are necessary, but it is a requirement that we submit grades to the registrar at the end of the semester.

And you could do contract grading where the students can choose this. I yeah, well, probably go down that route with my marine biology class because it's a 500 level class where they.

Drew Vartia: Can make a.

## Scaling Student Assessment Podcast Series

Trevor Rivers: Smaller population. They've been inundated with the academic, you know, lifestyle, I guess. So they know, like first semester freshmen having a contract grading, say, in a class of 800 is going to be pretty prohibitive for me. However, somebody else is doing something that was really interesting. I think you picked up at a in a conference where say you have people who tend to excel at one aspect of the course than others.

I'd say some of them take exams really well, but maybe they've got home life stuff, so their attendance is a little poor, or they really like the written assignment, but they're really shy and that communication is difficult. What you can't do is you could create three different potential grading pathways and just give them the highest of those weightings.

So you weight them differently. Yeah. And then they don't have to put in the work for it. Just be like you did awesome on the exams. So obviously you have an understanding of the material didn't do so well with your attendance. But there's all sorts of reasons why that's the case nowadays. I mean, most people are working. So here's what you're going to do.

We're going to wait the exams more for you. And then there's somebody who might have testing. So and so instead of those stressing out doing really poorly on the exams, but they're written assignments or there are other assignments or stellar. Yeah. Then you would wait those because it's really a metric of trying to find what they're learning rather than.

Drew Vartia: The that's going to say from an assessment standpoint that's that seems pretty robust. I mean, you're you're asking everybody for evidence of their learning somehow. Right? But the mode through which that's presented to you can vary by student. And that just feels really flexible. Right. and I like that a lot.

Trevor Rivers: Yeah. And, and I almost, almost more excited about that than, say, the contract grading. Because oftentimes, as anybody who's ever stepped foot in the classroom knows, the loudest voices often carry the most weight. And yeah, not everybody might agree with that that point. So yeah. So I think I'm I'm going to incorporate that into marine biology. I think the the issue with say the in-person non majors is we don't have exams for example.

Right. So they they can do the quizzes. It's nice to have students there so they can interact with each other. But it's also because it's a non majors course. That's kind of the the real pull is getting them to to want to be in.

Drew Vartia: Could you touch briefly on the type or frequency of messaging that you might need to do with students in your 500 level, smaller enrollment course versus this sort of mega bio 100 course? with primarily freshmen, you know, how do you acclimate them to these alternative systems?

Trevor Rivers: Right. And how do you not give them too much rope? right. Same time. Right. So I guess where my starting point is for alternative grading is, is I don't care the path that they get to as long as they learn the material. Now, other aspects of being a student is and this is discussed, I think, with a lot of people in like large online courses.

This is time management. Right. And students don't necessarily have the best time management. But is that what we're doing for the course. Right. Is that part of the curriculum is they are needing to manage



## Scaling Student Assessment Podcast Series

time. And so then that brings us to the point of well do we have assignments that are due at a certain point, or are we going to limit the amount of leeway that they have to turn the assignments?

Now, if it's something, say, in math, where you can't really progress until you've shown mastery or competency, when the other portions of the of the course, that kind of means that there's probably going to be some linearity, I guess, with it. But having an assignment that's due at a certain point, but then giving options for, you know, if they do poorly on it, giving them opportunities to to do better, I think is a good one.

But the trick for that is to not make that the default, where they're just going to throw their attempt to the wind and see how it how it goes. And if they do poorly, then they just take it again. I think they and I'm, I'm going off rails a little bit here too, would be to make it that it's more work to get to that same point.

Right. So if they do really well in the first time, then they're off the hook. If they do poorly, they've got the chance to do better, but they got to work for it. I think that's really the trick for it. And I do think that, you know, time management where you're just saying this is the hard deadline if you don't have it in, I think it's kind of detrimental in some ways.

Drew Vartia: I could see somebody listening to to that and maybe having the reaction. Okay, so you've talked about flexibility, but you've also talked about difficulty in feedback, right? Is your feed. Have you made it hard on yourself now that everybody's doing different things at different times and you're trying to give meaningful feedback on all of it?

Trevor Rivers: Right. So yes. but I think that's where self-reflection, feedback, if you can train them to give themselves feedback, is the key for that. So I think having a hard deadline is important for things that you are expecting to give feedback for. so for a quiz, right, if they get it wrong, but they spend the time to go and do it right and resubmitted and have self-reflection, then that's really not under the the time crunch.

But if it's an assignment where they have to do this and then to help their peers out as well, have that feedback happening, or if we give them feedback, then I think, yeah, put that on the timeline for it and give that to them with enough leeway and time that they can actually respond to it. Right. Feedback without time to respond is worthless.

Yeah, at that point. But I think if you build in that, like the self-reflection aspect of things, then whenever they turn it in, right, you can respond to that feedback. And I think that would be meaningful. But I don't think there's a perfect answer to that. Yeah. Because I mean, you don't want everybody waiting till the end of the semester, right, to do it.

Yeah, right. So that's why I'm saying hard deadlines where they turn something in, but that's not the end of the road, I think is the way that I look at it.

Drew Vartia: And you touched on another good point. When we go to all this trouble to get students meaningful feedback, something that they could act on, then the trick is to make sure that they do act on it. You know, do you have any sort of thoughts on how you can put an eye to student use of your feedback in general, whether it's from peers or from, you know, the instructional team?

## Scaling Student Assessment Podcast Series

Trevor Rivers: Great question, drew. I do think the way to do that is to potentially have a couple iterations of feedback potentially, or they submit something, you give feedback, they adjust and address. The feedback I think would be would be good. And then the instructor or the greater whomever or peer would be like, okay, yeah, I see that you've gotten to that point.

I think you've got a good grasp of the material at this point. Yeah, just feedback and then it's up in the ether where they're not needing to do anything about it. Is potentially a waste. I guess so having something where you build in that, this is what you're going to submit, this is the feedback that you're going to get.

Trevor Rivers: You're going to read the feedback, potentially respond to that at that point. Or another way would be to go and make the corrections or adjustments or something, and then describe how you use that feedback. Yeah, I like that.

Drew Vartia: That makes a lot of sense.

Trevor Rivers: But yeah, that's that's the biggest part of thinking about this on the scalable side of things is reasonable feedback. And it keeps pulling me back towards peer feedback is the trick, but making sure that they're doing it meaningfully, like giving each other meaningful feedback, is going to be the hard part, especially for the first and second semester freshmen.

Traditional grading, of course, is extrinsic, right? Trying to push things into an intrinsic motivation for students. alternative grading lends to that. The issue that we often run into is scaling, because feedback is incredibly important for this. How are we feasibly going to do this? And I think students to student or peer feedback is one of those things.

Drew Vartia: Well, thanks for being here and talking with us and sharing challenges and insights that you have when thinking about alternative grading with hundreds and hundreds of students. I think people are going to be really interested to hear about this, and I appreciate your time.

Trevor Rivers: Yeah. Feel free whomever is listening to reach out to me, especially after I've got a handle on what canvas can and cannot do with the automation of this. I do think that there's a powerful platform, and I'm kind of trying to take it to its breaking point. This point?

Drew Vartia: Yeah. I think people would, appreciate you as a resource after you've kind of tested these waters. How do they get Ahold of you?

Trevor Rivers: you can email me. Probably the easiest way. Two rivers at quarter.

Drew Vartia: Perfect. Well thanks again, Trevor.