



*a podcast about
how we learn,
how we teach,
and how they overlap*

Episode 7: The Tradeoff

[Theme Music]

Adam: Hi, I'm Adam Sanford. I'm an academic life coach and a professor in Los Angeles.

Dinur: And I'm Dinur Blum. I'm a college professor in Los Angeles.

Adam: And this is Learning Made Easier, a podcast where we discuss how we learn, how we teach, and how they overlap.

Dinur: Welcome back to Learning Made Easier! this is Episode 7: The Tradeoff.

In the information technology world, there's a saying: "fast, right, cheap - pick any two." Recently, Adam realized this also applies to education: "fast, correct, low-stress - pick any two." In this episode, we'll talk about the outcomes of each tradeoff, and how to encourage your students - or yourself - to make the one that will produce quality work and minimal stress.

Adam: The one that most students are most familiar with is actually the second one that Dinur named, which is "fast and low-stress." All students want this. They want to do it fast, and they want to do it with no stress. But the problem is that then the work suffers, because you get incorrect work, inadequate work, or low-quality work.

And so, for example, some students - a lot of students - will turn in something. They'll turn in anything, to get half-credit or to get partial credit. And cramming leads students to believe that this is how things just have to be, where they try to do it quickly and they try to do it - if they have to do it with high stress, at least they're doing it quickly. The focus is always on getting it out of the way, getting it done, get done, get done, get done - and the problem with that is that it produces low-quality work, and you're judged not on how much you stressed out, but on the quality of your work.

And so when it comes to the first kind, "fast and correct," all students believe they can do this. They all believe they can do this. And the reason they believe they can do this is because

cramming - that method of cramming, which we talked about in episode 4 - they cram, they cram, they cram, they spit it out on the test, they get a passing grade. So they figure that cramming is how you do things.

You can also cram with a paper by writing at the last day before it's due. You can cram with a project like leaving it till the last minute and then your whole family or your roommate has to help you hold together this volcano that you've built for your science project. You know, everybody has to hold one piece of the volcano so that the glue sets, and you're yelling at each other, "why did you wait till the last minute!"

But doing it one step at a time is almost a foreign concept to students, and part of the reason why is that they don't perceive projects as things that are a set of steps. They don't perceive the paper as things that are a set of steps. And I had a student say, "I always thought the due date was the 'do on this date.'"

Dinur: And what I would say is, the cramming mindset leads to haste. A cramming mindset leads to hasty learning, which means the knowledge that you gain, the information you gain, isn't going to really sink in. It's going to lead to hasty execution, which means that the proper time and the proper effort haven't been given. And that means that there's going to be a lower quality result at the end, one in which the teacher isn't going to be happy evaluating the project or the paper or the exam, and the student is unlikely to be happy with the grade that they receive, because they've done all this work in such a short amount of time. They stressed out, but they're still not getting a lot of credit for it.

Adam: I tell the students that I can't see how much you stressed out about this. I can't see how much time it took you. All I can see is the result, and if the result is low-quality work, I'm going to assume that either it didn't take you a lot of time, or you weren't really paying attention to the requirements of the assignment. And a lot of students have asked me, "you mean you can't see how stressed out I was?" and I've said, "well, if it's low-quality I'm going to assume that you are either stressing out or you just don't care." But it's going to be one of the other.

And the thing about what you said about speed, about this emphasis on doing it quickly - a lot of students mistakenly believe that the kids who do it fast are also the kids who are the smartest, because they got it done fast. And that's not the case. It's actually - the kids who did it fast are usually either trying to get it out of the way, or they gave up, or they didn't really study. It's just turning in something to get it out of their face. They want partial credit.

And I throw a wrench into those works in my own classes, because I don't give partial credit. If you didn't do it well enough for it to get credit, you don't get a grade for it, other than "you didn't do this yet, because you haven't done it well enough yet." And teachers, I actually do recommend making that a requirement in your class, like "if you haven't reached a certain point, you get zero credit for this. You have to do it well enough to make it worth my while to grade." And there are

some students who've said "well, then you want it to be perfect!" No, but I want you to make it competent.

So like we were saying earlier, students don't perceive a project or a paper as a set of steps, either. They perceive it as one thing. And the idea of breaking down the big project into small pieces is something most students have never been taught. And it really is a skill that we should be teaching our students early and often. I mean, I think they should start teaching "break down the big project into steps" in like 2nd or 3rd grade.

Like, you've got an art project, what are the things you need to do in order to get the art project done? So that students learn this method of looking at a project and saying, "OK, what should it look like at the end, and what should it look like maybe a week before that and then a week before that, until you get back to beginning?" And then you break down each week into small pieces.

And we will have an episode on breaking down big projects and papers into small steps very soon. We've actually rearranged our topics, so that's going to be coming up pretty soon.

Dinur: And I will also say that this will lead into next week's episode, which looks at the idea of progress or improvement, rather than perfection. Students are trying to achieve perfection in one fell swoop, and as teachers we know that that's just about impossible, but consistent improvement, consistent progress on a project? Well, that's going to allow for a much better grade, because that time it's been spent, that effort has been spent, and we can tell that this was something that a student put some thought into, and we can reward that with a better grade.

Adam: The quality of the work is what indicates how well you did it, students. And for some of you, that may be very difficult to understand, because you've always thought "I just need to get it done, I need to get it done, I need to get it done." And the problem is that it doesn't matter if you want to do it "fast and correct." You will rarely achieve correct work when you are trying to do it fast. Because even though you think it will, it often becomes fast and incorrect, because you didn't give yourself the time to do it right. You didn't give yourself the time to check it before you turn it in.

And the students who do manage to achieve "correct" when they're rushing or when they're hurrying often suffer from real stress problems, like anxiety and panic disorders. And I've had students ask me, when I say this in class, "you cannot rush and do it right and if you stress yourself out the work will suffer," I've had a student say "I don't believe you can do good work if you're not stressing about it." They don't think it's possible. So we also have an episode planned where we will talk about how it is actually possible to do something correctly, without high levels of stress, so keep an eye out for that episode as well.

Dinur: Now, one of the things that I've seen whenever my students have given me work that I

think they did fast or they didn't stress, is I'll get papers where a paragraph takes one to two pages to write. But there are very few verbs in those one or two pages. So I get a lot of words; I don't get a lot of information accurately conveyed. And that's something that, if students take the time to proofread, have someone else read it, read it out loud to yourself, that's at least one type of mistake that can be caught: Where do I break up these thoughts? Hey, I'm missing a verb here. What happens here?

Taking that step shows me, as a teacher, that you cared enough to at least have someone look at the way you're writing. And that's going to make a better impression on me than if I get something that looks like it was written at the last minute.

And that says nothing about the level of content, the level of analysis, in the paper. That's just something very surface level. But that's still going to go a long way when I'm evaluating a paper, because I can tell that the student took the time to check their writing. They've probably taken the time to make sure that they've written a good, coherent paper.

Adam: And even if it's just an essay exam - I mean, we don't expect perfection on essay questions but we do expect you to at least look over the work, and if you realize that you've got a run-on sentence, do something about it. There are students who, when they don't check for errors before they turn it in, or the students who trust their spell checker and they think that that's proofreading, this is also an issue. Because I had a student - and I'm not going to tell you the actual word, but it should be pretty obvious - they were writing a paper about "organisms in a social environment" and they typed O-R-G-I-S-M and thought that they were writing "organism" because they didn't know how to spell the word, and then they trusted their spell checker.

And it was an extremely amusing twelve-page paper, but I couldn't take it seriously, as a teacher, because every page had this word on it about four or five times. And I remember circling it in like the third page, writing "you keep using this word, and I don't think that's the word you want." I felt very much like Inigo Montoya, you know, "You keep using that word. I do not think it means what you think it means."

And I had the student come to office hours a week later when they got their paper back. They were white as a sheet, and they said "I don't understand how this happened," and I said, "Did you trust your spell checker?" and they said, "Well, shouldn't I?"

No. Because the spell checker is not your friend. It is a typo checker, but that's all it checks for, and it assumes that you know how to spell the word you want.

So there's also the issue of the students who don't realize yet that "lots of words" does not mean "good." You put eight pages of writing together. That doesn't mean you've written an eight-page paper. If it's missing verbs, if it's not showing a throughline, if there's not a progression from idea number one to idea number two to idea number three to a conclusion - you haven't written a

paper yet. You've written a bunch of words, but that's not the same thing.

And so, these are all examples of the kind of incorrect or low-quality work that we get when students are trying to do it “fast and correct,” or “fast and low-stress.” And the common factor is they're trying to do it fast.

And so our advice, of course, is that you give up fast, and that you learn how to take things one step at a time. And that may sound really strange, but it will reduce your stress, and it will make your product - what you're turning in - much better, and much more likely to get the grades that you want to get.

Dinur: And honestly, at first, you may feel more stressed because we're asking you to step out of your comfort zone. And we're asking you to think about how you do your work and doing it very differently. And at first, that's going to be stressful, because this is something unfamiliar to you. You know, if you're someone who's always done things at the last minute and been able to do well, and now you're being told either “your last minute work isn't going to cut it,” or if “you want you work to cut it, take the time, break your assignments down,” that's something new. But the hope is that if you practice this, that over time that's going to drop your stress levels by a lot.

One of the ideas is that we'll talk about in a future episode is the idea of progress or improvement as the goal, rather than perfection. Well, that goes for writing a paper, for doing a project, or for studying for a test. Don't just look at the final due date - when that project is due, when that paper's due, when you have to take that test - really focus. Try and build up minimum, one week if it's a test; more than one week if it's a paper or a project, and see: “what do I need to do at each step of the way? What do I need to do this week? OK, here's what I need to do this week. What can I do today?”

Do a little bit each day. And let that work build and build and build, and over time, you're going to realize - you've written a much stronger paper, you're much more ready for that exam, that project is much more on point - than if you had tried to do it at all in one swoop at the end.

Adam: And to give some examples of the students who have made this shift, who slowed down and started focusing on stepwise performance instead of all-at-once performance: I had a student who was completely shocked. They were writing a paper. They had 6 weeks to do the paper, and so I worked with them on a plan for their paper, because they came to office hours and said, “I don't know how to do it,” and I said OK. So we went through the backwards planning method - which, again, there's a future episode very soon about this - but they were shocked, because when they actually followed the plan, they said, “I just don't feel like I'm doing enough!”

That's another thing that you might feel, if you're used to doing it really fast, 6 hours or 8 hours right before you have to turn it in, and you're chugging Monster and you're sitting at a computer lab at 2 in the morning - if you're only doing this one step at a time, it may feel like you're not

doing anything, because it doesn't feel like a big thing. "This is a big project, I should feel like there's a lot to do!"

But each step in that project is something you need to get done, and so doing it one step at a time allows you to do it with far less stress, but it may feel very unfamiliar. She came to me in week five, I think, of six, she says, "I just doesn't feel like I'm doing enough!"

And I said "Where are you on your paper?"

And she says, "well, I have a final draft, and now I'm going through and checking for such citations and for weird things at my writing, and I'm going to give it to my friend a couple days from now, and let them look at it and tell me what else is wrong, but it just doesn't feel like I've done the work."

And I said, "Are you going to have a paper that you can turn in in a week?"

And she said, "Well, yeah, but how do I know it's going to be good?"

And I said, "OK what kind of grades have you gotten? The papers that you've turned in when you've rushed through, done it at the last minute and stressed yourself out?"

And she said, "Well, usually I get, like, B-minuses, maybe I get it B sometimes, but not often. I've gotten C's, and I hate that."

I said "OK, let's use this as a test case. Keep doing what you're doing, keep following your plan, turn it in, and let's see what you get."

Well, she got an A-minus, and she was shocked. Because she had never gotten a grade above a B on any paper that she turned in, and now she just jumped two grade steps, and she said, "I'd never believed that that would make that big of a difference, but it did."

And I said, "And how are your stress levels? Are you sleeping?"

And she said, "I'm getting a lot more sleep, but at first I felt guilty about getting so much sleep, because I wasn't stressing out about the paper."

And I said, "Stressing out about the paper feels like you're doing something. Working on it one step at a time is actually doing something."

Dinur: And something that students need to realize is that when you're planning out your study sessions, you're planning out how you're writing, you're doing a little each day. Make sure to block out some time to have some fun, or to do something where your brain isn't actively engaged

with the material, because your brain needs a little downtime. And so something that I'll do, personally, if I get stuck on something, or I feel like I've done enough to prep a class, prep a lecture, I'll work on things like data entry for a different project, something where I've got to focus but it's not especially intensive. And that lets my brain kind of digest whatever I've been thinking about, and I'll passively think about it, and sometimes it will lead to a new idea, sometimes it won't. But you have to build that time, because your brain needs some time to recharge and relax so that you can be more effective when you do work.

Adam: I had a client just the other day, who said to me that he has discovered that for him, when he gets “reading and then answer these questions on the reading” assignments, he actually does better if he does the reading, makes notes on it, and then takes about a two-hour break. He says, “I'd really like to take a day, but - sometimes I take a day, but I'll take like 2 hours, and I'll go make dinner, or I'll go for a run, or I will go clean up my room, or do something where I'm not thinking about school at all, and when I come back it's like I'm refreshed.”

For me, when I work on preps, or when I'm working on grading, or anything that has a lot of steps to it, my break is I will go and do the dishes, because standing there with my hands in the water and just letting my mind wander is really really helpful when I'm trying to figure out: “OK, how do I explain to the student that this particular thing on their essay is not only not good, but it's kind of offensive? They need to really think about not using the n-word in the middle of their paper,” or something like that.

And so when you allow yourself that downtime, that's also really important. And teachers, this is for you too, you know. When you are working on prepping - and we'll go into how teachers can use this idea of taking it slow and doing it right - when you break down your work into small blocks of time, you've got to make sure that you leave yourself some downtime. This past summer I had 5 classes to prep, and 4 of them were brand new, and so I had to work out “OK, this is the kind of thing I do with all my classes, I have to have a lecture, and then I have to record the lectures because I flip my classrooms. I need to have these handouts, I need to create test banks, I need to create quiz banks, and I need to create this other assignment that I have and do,” and I was looking at that, thinking, “how long it's going to take me?”

Well, OK, I'm going to plan that writing all the lectures is going to take me about 10 days, and then recording them is probably going to take at least that long, maybe 14 days, so I gave myself a little wiggle room and I also set my first goal as, you know, I didn't start when the classes ended in May, I needed to take couple weeks off to let my brain recover. And so I said, all right I'm going to start the first week of June and I'm going to be done by the second week of August, which gave me basically 10 weeks to do 5 class preps.

Well, by the time June thirtieth rolled around, which is where I was checking and seeing, “is this actually working, this slowdown method?” - which I had never used before - my goal was to have or already had this many things done. Well, I found that it was almost a week ahead, even though

I had allowed myself at least one day off every week.

And some of us don't allow ourselves, as teachers, to take breaks. And then, for example, when you're grading, and you have 100 papers to grade, and you get to paper number 17, and you're really annoyed because you've seen so many mistakes, and now you start taking out your irritation, your grading gets harsher. Or, you might go the other way where you get to like number 15, number 17, and you're just like, "whatever, I'll just ignore the fact that you did run-on sentences, who cares?" and then you're not serving the students either, because you're being too easy, and that's not helpful to them any more than being too harsh is.

So you might say, "I'm going to do 10 papers and then I'm going to stop. And I'm going to do 10 papers three hours from now, and then I'm going to stop. And I'm only going to do two sets of papers a day." And that's normally enough time to get even final papers graded, if just allow yourself a break between sets of papers.

Dinur: And honestly, as teachers, to me this is a basic issue of fairness. We expect our students to take the time to give us quality work to evaluate them on. It's on us to take our own advice. It's on us to offer them quality learning experiences, and that's done because we've taken the time to think and to thoroughly plan out our courses. It's an issue of fairness, it's an issue of reciprocation. And one thing that we can do is that we can make sort of planning activities as part of their grade.

For me, when I do essays I have my students bring in outlines, I have them bring in progress drafts, because the idea is to have students think about and engage with their papers well ahead of the due date, so that when I'm grading papers, I'm going to see higher quality work than if I just let them do everything without a draft attached to it.

Adam: And when I have students create study plans or project plans or paper plans, I ask them to figure out, "how much time do you actually need to spend?" So that student who was shocked that she got an A-minus, she tripled the amount of time that she had originally planned to spend on her paper when I said, "You know, I don't think that you can probably read 6 sources in 2 hours. I think that's probably going to take you about 6 hours, one hour per source."

And she said, "Really?"

And I said, "Yeah, but you've got 2 whole weeks to do the digging into the sources and writing up your rough draft. I would make sure that you schedule that time in."

So she kind of grumbled about it, and then she went and did it, and realized how much easier it was when she was trying to rush through sources.

So what I would suggest you do is, if you have, say, a class of 20 students, you might say "all right,

today I'm going to give you 45 minutes to make a plan, and you're going to bring your plan up and show it to me and I'll give you feedback.”

But if you have a class of say 40 students, or if you have 200 students, if you have TA's, you might have a TA take responsibility for giving feedback on the plan.

If you have a class of 40 students, you might tell them, “OK, you're going to take a photo of your plan and then e-mail it to me, so that I can give you credit for having made a plan and I'll give you feedback on your plans.” So you can even create, like, an assignment on the learning management system - say, “OK, send this picture that you've taken of your plan to me, so that I can give you feedback.”

And if it's part of the assignment, it makes it almost inevitable that they will need to do it. And students, we're not trying to say that we're trying to force you, but we kind of are. We're trying to make it so that you can't do the assignment without doing the plan.

The ways that students can use this is, they start out with, you've got to learn to manage your time, and we know we haven't talked about that much yet, but we've got several episodes actually, and an entire sequence on time - it's coming up.

Dinur: And it's not just managing your time, it's managing your effort, because time spent without any effort isn't going to get you anywhere. The whole idea is that you're taking your big ball of stress, work relating to your effort, and the time spent, and we're just asking you to break it down, so that there's less stress each day.

And we want you to be realistic. If you know you tend to half-ass things then you've got to double the time you plan on taking for it. You know Adam said he had this student double or triple the time she spent looking at sources and that led to a higher grade. Well, why? Because that student may have been rushing when they were looking through sources initially, and now they're being forced to take some time and break it apart, and take time more and more consistently, and that ultimately leads to a better paper.

Adam: So that brings us to pretty much to the end of this episode, and in episode 8, we're going to be talking about how to focus on improvement, not perfection. So we'll see you for that episode...

Dinur: ...next week.

[Theme Music]

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Dinur: We look forward to seeing you next week.