



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

Episode 5: The OLI Method and the Growth Mindset

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

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

Dinur: Welcome back to Learning Made Easier. This is Episode 5: the OLI method and the growth mindset.

Too often learners think that there are people with a natural talent for learning, and that they must not be that person because learning isn't easy for them. This is what Carol Dweck calls "the fixed mindset," and in this episode we want to go over these ideas and how to develop a growth mindset.

Adam: So when I first discovered Carol Dweck, I was just astounded because I thought, "oh my God, I've had a fixed mindset my whole life."

In her research she took her graduate students - two of her female graduate students - to, I believe it was a second-grade classroom, but don't quote me on that. But it was younger students, you know: second-graders, maybe third-graders.

What they did was they gave all of these kids in this class a set of math problems and some of the math problems were grade level, these kids could do them, and some of them were totally beyond what these kids would have learned, they were like sixth- or seventh-grade, maybe even algebra problems.

So they had one of the two grad students stand out in the room with the students, with the kids. Then the other graduate student, she went into the resource room, which, in a lot of the older elementary school buildings, there's this room that all the classrooms in a building connect to in the center. So she went into the resource room.

The woman in the classroom, she told these kids "when you feel like you've done all the ones you can do, take it to Kristi in the resource room."

So the children would go into the resource room to Kristi, one at a time. Kristi would ask their name, and then she would have randomly chosen one of two things to say to them, and this was the experiment. When the child handed her their paper she would say either

“wow, Tommy you must have worked really hard!” or “wow, Tommy, you must be really smart!” So she kept a record of which child got told which thing.

About two months later -- this child was told this one time, they figured this would not stick. Two months later it's going to be the same thing. So, two months later Dweck and her two graduate students went back to the same classroom and gave the kids another set of math problems and told them “work on these, you can work together if you want. But let's see how many you can do.”

What they saw was astounding. The kids who were told “you must be really smart” gave up after two minutes.

The kids who were told “you must have worked really hard” were still working on it 20 minutes later, when Dweck and her grad students finally said “OK everybody stop.”

So in her research what she discovered was just that one time of being told “you must be really smart” versus “you must have worked hard” installed what she called a “fixed” or a “growth” mindset.

So, the fixed mindset says “I'm either good at this or I'm not. If I'm not there's no point in trying because there's no way to get better.” The growth mindset says “I can get good at this even if I'm not good at it right now because I just have to keep working and focus on improvement.”

Dinur: In episode 4 we had talked about white cramming is bad, and it's better to space out you're studying, and studying consistently. Well, I think that really dovetails nicely with this growth mindset and fixed mindset.

To me that fixed mindset is the idea of “well if I know the answers on this exam and I get a good grade then I'm a good student and I'm a good person.” For me for the growth mindset “if I space out my studying, and I would know a little bit more today than I did yesterday, and tomorrow I'll build on that and I'll know a little bit more tomorrow than I do today. And so on and so on.” Well that allows me to grow. That allows me to really understand and to know the material.” This is what we call the growth mindset. It's that ability to think a little bit more deeply about material and to analyze and to maybe use it to create new knowledge.

So it's more than just “did I know the right answer on an exam at one point in time.” That's what we talked about when we talked about a growth mindset - being able to develop yourself a little bit further, than just learning material at a surface level.

Adam: The other thing is that the fixed mindset actually goes with a theory that we have in sociology called “labeling theory.” It also goes, interestingly enough, with a theory in criminology that talks about how, if you tell a child over and over again, “you're just a blah” - and the interesting thing is that labeling theory was saying when you label somebody negatively - then they're going to take that on as their identity.

But what we found with the growth mindset and the fixed mindset is if you tell a kid they're smart, they also take that on as an identity. Well, then they're not willing to take risks anymore, because if they take risks they're risking showing that they're not smart anymore.

Dinur: People tend to be risk averse.

Adam: So the thing is that if we tell a child, if you're a parent, if you're a teacher, stop telling that kid "you're smart, you're smart, you're smart," because what you're telling them is "if you ever screw up you're not smart anymore."

If they're developing an identity around "smart" -- and they will, because it's our human nature to take a label that everybody says we have this label -- instead tell them "you're a hard worker; you've really worked hard."

I mean, my older kid they draw manga. They draw anime stuff. And I have never told them they're a good artist. What I have told them is, "I love the way you do that shading, I could never do that." Or, "I love the way that you managed to put motion into this picture. Like, I can totally tell that he's throwing the ball."

So, praise the work, not the person. That's really hard for a lot of us to do.

Dinur: That's what I was about to point out, is you're really highlighting a specific skill when you're saying "wow, look at that shading! That's something I can't do." You're rewarding that effort, you're looking at what they're doing, and that can be part of their identity rather than just, "wow, you do that really well." Which, taken to an extreme can mean, "well, if I drew something badly, does that mean I'm not a good artist anymore?"

Adam: Right. In the same way, teachers can use this to say to a student, "I can see your improvement. You had a D on the last quiz, now you have a C-, I can see your improvement. You are working hard. You are doing better."

But always focus on the behavior, the effort not the person. This works back to criminology stuff; in restorative justice, the whole idea is to focus on what the person did, not who they are. Because who they are -- it doesn't matter whether you're giving a positive label or a negative label, it's creating a fixed mindset: "I can never be anything else."

Dinur: Also, from criminology, there's the idea of the self-fulfilling prophecy where, if you keep telling me I'm something, I'm going to assume that's what I am, and I'm going to live up or I'm going to live down to that label. Why? Because that's how you see me, and that's how I'm going to start seeing myself.

Adam: The issue with the fixed mindset is, they will try to live up to a label that they can't always achieve. The label is "you are smart, you are gifted, you are a genius, you are intelligent." Then they run into a thing that they can't understand easily, and they crash and burn, and they think "oh my god, I'm not smart anymore."

Which happened to me with math because I was moved ahead a year in school and I missed a bunch of math foundation, and everybody just started telling me I was stupid, because I didn't know how to do math. But I had missed the times table, and it's kind of hard to do division if you don't know what the times table is, and no one taught me that. But even if it was a student who is just having trouble with the times table, and they've always thought that they were smart, and now they're facing something where it takes work and struggle? Well, if you have a fixed mindset, work and struggle means there's something wrong with you. Not that there is work to be done. That's really difficult for a lot of students. We get these students in our classes where they've always zipped through the

tests, and learning is easy for them, and then they hit the pinch point of boom, they're in college, and they just can't drift through classes and do well anymore. Because now it's effort, and the feeling of effort for a person with a fixed mindset is "I must be a failure."

Dinur: I always like to liken this back to sports and to music. The best players, there are very very few generational players that you could say are successful solely because of their talent and they're really just that good. Most professional athletes work extraordinarily hard. I promise, you even the generational athletes, the ones who we think are just extraordinarily genetically talented, they're working their tails off too. They're trying to grow. A musician doesn't pick up their instrument and the first time they play it they're writing pieces. They're practicing, they're doing scales, they're doing arpeggios. They're practicing changing keys, playing in different rhythms. But they're building, they're growing, they're developing that skill so that over time, if it's a guitar player, over time they can thrive.

Adam: Yes. I remember when I was a kid, and I had a very fixed mindset, because I was a gifted student. I was told I was "smart" and all that stuff. There was a girl that I had grown up pretty much next door to, Teresa, and she started playing the cello when she was eight. By the time she hit sixteen she was really -- she wasn't Yo-Yo Ma, but she was "working on being his protégé" kind of level of skill. I said, "I'm just so amazed at how well you do it."

She says, "well, I practice every day." At the time the idea of practicing to get better at something was foreign to me. I had never -- I didn't grow up in a sports family. I grew up in a music family. But my parents lived and breathed music. They were all music teachers. My mom would just sit down at the piano and play Rachmaninoff for fun. But she had also been practicing since she was like ten. Her parents put her in piano lessons. She was still friends with her piano teacher when she got into her 40s, And she played every day.

The thing that I think a lot of students don't realize is that eventually the practice may become something you do, not because it's drudgery, but because it's fun. When we go back to find a way to love learning again - well, if you can study and go "oh that's so cool! I never knew that!" instead of "oh god, I've got to remember this too?" If you can bring that love of learning, often the practice will start to be fun.

So now that we've talked a lot about the growth mindset and fixed mindset, let's talk about how to develop a growth mindset, because it should come as no surprise that successful people, pretty much across the board, have a growth mindset. They're willing to make mistakes; they're willing to learn. They're willing to not be perfect. How do you do that when you've grown up with a fixed mindset? And the majority of my students have a fixed mindset - thank you standardized testing.

So what we have here is the OLI method. And one of Dweck's teenage case studies went from "I have to be the best at everything, and any mistake makes me a failure" to developing these three basic steps.

So OLI stands for Observe, Learn, Improve -- O, L, I. We start with "observe."

And "observe" asks, what mistake did I make? What was the main problem or error? And where did I miss the mark?

Dinur: It's you trying to look objectively at yourself, and that keyword is "objectively." We don't want you to judge yourself. When you say "where did I make a mistake?" Don't say "I

must be an idiot because I missed that.” Go “OK was I up the night before playing video games? Was I working an extremely long shift at work? Did I try cramming for this test? Was this a question where I tried to memorize something and memorization just didn't pay off?”

Adam: “Did I use only one method of studying and then it didn't work, because I wasn't varying the kind of study skills or the kind of study methods that I was using.” The main thing is to observe without judging, and that's really hard for some of us because we've been raised to judge ourselves to put ourselves down.

I'll say this, even if you only say it in jest, your brain does not understand it that way. If you say “Oh I'm so lazy,” and you're laughing, or you're making fun of yourself, your subconscious does not understand that's a joke. Our subconscious is extremely literal and if you keep saying, “I'm lazy, I'm lazy, I'm lazy,” and you're laughing about it or it's funny, your subconscious is saying “Oh, I **am** lazy.”

So you need to observe without judging. You need to get the prefrontal cortex, the thinking part of your brain, in on the action. So leave the negative judgments by the roadside, because they're not going to help you fix the problem.

So just like the growth mindset is focusing on what you do, not what you think it says about you, you need to do that here too. So what you do is you say “I skipped my study session, I stayed up until 2:00 in the morning playing videogames.” Do not add in “and that means that I'm an idiot” or “that means I'm lazy.”

Dinur: You want to focus on concrete actions, concrete behaviors -- because we can change concrete behaviors. You can say “I didn't plan this well enough. I got a second exam, I know what I've got to do next.”

“I skipped a study session, next time I'm going to be more consistent. I'm going to make sure that I do it.”

You want to focus on concrete behavior because concrete behavior can be changed. To us as teachers, when we see that improvement, well, that speaks really well to you. And it speaks great to us and we're more sympathetic, because we go this person struggled on test one, but whatever they changed really worked, and now they seem to really be getting the material.

As teachers, we've talked about how we don't look at a student by their grade. We don't judge their self-worth based on the grade they've earned. The grade is how they did at one point in time. What stands out to us is did a student really learn? Did they grow under us? Because if they're able to grow, then we as teachers have done our job.

Adam: So that's observing, where you just look at what you did and name it. And don't name it with any judgment words: don't name it with any adjectives. So you don't get to say things like “I stupidly skipped my study session,” just say “I skipped my study session” or, “I missed my study session.” If there was something that came up that you couldn't control, like for example, you had a long an extra-long shift at work and you planned to study that night, but your boss called you over for four hours. That's out of your control. But you still skipped the study session, so you need to make time to do that studying at some other time and maybe you didn't do that.

So then the next step is to “learn.” Knowing that I made this mistake, what can I learn from it? The idea here is to find the underlying reason that you made the mistake. So let's take the video games example. You were up late, up until 2:00 in the morning playing video games. Well, maybe you use video games as stress relief, because video games are one of those things -- and this is why they make so much money -- they allow you to feel successful. You get a dopamine hit, one of those “I feel good hormones” is dopamine and dopamine is one of those things, like a happy hormone.

You just beat the big boss in World of Warcraft, and it took seven hours, but you did it, and you feel an accomplishment about that. That feels so much better than sitting there looking at your math paper going, “I have no idea how to do this equation. I hate myself. I can't stand this class.”

Instead of feeling bad, of course you did something to make yourself feel better. But the reason that you did it was because you needed stress relief. If you skipped your study sessions because you were working an extra shift at work, and you were tired, maybe you need to decline the extra shift, or find a way to schedule in a nap so that you get enough sleep, or go to bed a little earlier to make sure you get enough sleep.

So address the real problem, the reason that the mistake happened. That's sort of the “learn” part of this.

Dinur: Then the last part of the method is “improve.” Knowing what the mistake was, how do you, as students, how do we as teachers, make a course correction so that we don't repeat that mistake in the future? Because making mistakes is fine. It's a great thing. But mistakes are only great things if we learn from them and if we learn how to improve from them.

Adam: We're going to have a whole podcast on mistakes pretty soon. But that's in the future.

So again, taking these examples, if you need stress relief, is playing video games for nine hours the best way to get stress relief? Maybe you could find some other way to relieve stress that doesn't keep you up until 2:00 in the morning.

If you're not sleeping enough figure out why. Are you overbooking yourself? Are you trying to cram in too much during the day? Are you trying to do everything with no schedule and trying to keep it all in your head? That's going to wear you out trying to keep it all in your head. Maybe you need to get a little more organized so that you can make sure you have time to get things done and get enough sleep.

Maybe you need to drop something off your schedule, maybe trying to take six classes is overdoing it when you also have a part time job. Or maybe you have a part time job and a baby at home. Why are you taking six classes? At some point, you have to realize you still need to leave time to eat, sleep, rest, do some recreation.

Dinur: Note that when we've gone all through these examples, at no point have we put a judgment in. At no point have we said, “oh I was playing video games too much, I must be an idiot for doing that.” Really we're just saying, “OK I played video games; I was doing it to blow off steam. I was stressed. Next time I'll schedule my video game time a little bit differently. I'll make sure to include a little bit more time to sleep or to get some rest or to

review.”

Adam: Maybe I'll decline that shift, or I'll talk to my partner about, “can you do the laundry this week, because I need to take two hours to sleep, and I can't do it if I have to run laundry.” You need to learn how to delegate. That's, again, something that we'll talk about in another podcast. We talk about time management.

So, the way that teachers can bring this into their classrooms is to encourage students -- teach them the OLI method, and encourage them to use it, and remember to reward and critique what they do, not who they are. This is extremely important. Every time you're tempted to say to the student who got an A on the exam “oh, you're so smart!” - don't do that, don't do that, no matter how much you want to. Say, “you must have really put a lot of work into this. I would love to know your study practices. Maybe teach the class about how to study effectively because obviously you're doing well.”

Help the students who have already bought into the fixed mindset -- and there's a ton of them because of standardized testing, which really instills this -- and nudge them toward the growth mindset instead. If they come to you and they say “I know I'm stupid; I failed this exam,” say, “what did you do to prepare for the exam?” Don't -- and don't let them talk about who they are. If they say, “I'm stupid,” say, “No, you're not stupid. It sounds like you didn't prepare very well.” Bring their attention back to action, rather than identity.

Dinur: Because again actions can be corrected, and it's a lot easier to correct actions than it is to change an identity. Their identity has been verified, and all of a sudden they don't do well - now they're questioning who they are. Whereas if we, as teachers, are putting the emphasis on what they did, or what they did is no reflection on who they are, which means that it's going to be an easier change to make.

For students one of the things that we've tried to emphasize is that you are not your grade, and you're not your mistakes. We expect students to make mistakes. We want our students to learn from them and to grow from them. I'd never remember, or I rarely remember the grade a student earns at the end of a semester, much less on a specific assignment or an exam, which means that I don't think of you based on what you did in terms of that grade. I think about were you engaged with the class? Did you come up with some really cool concepts? Did you make me think about something that I hadn't thought about? That sticks with me, not whether you got it 90% or higher on a test.

Adam: I mean, if you came to office hours and talked with me, and your -- and your final grade in the class is a C, I'm going to remember you a lot better than the A student who never once raised their hand in class. Then also remember that you can ask the adults in your life to remind you that who you are is not based on what you've done, that your worth is part of who you are. You have worth because you are a human being. You don't need to earn your worth. And it's not affected by what you've done or what you haven't done. You're still a human being.

So use the OLI method when you make a mistake, sit down when you've made a mistake and just do O, L, I. What was the mistake? What was the underlying reason behind the mistake? How can I course correct? So observe, learn, improve. And when you do that, instead of beating yourself up, you'll be amazed at how much more progress you'll make and how much less stress you're going to feel, and you'll stop cramming. Because cramming is the antithesis of everything we've just talked about doing. Cramming is

freaking out, ignoring your mistakes, or trying to compensate for the mistakes at the last minute when there's no time left, and it's not a conducive environment to learning.

Dinur: There was one last thing I wanted to add, bringing it back to my two favorite analogies of sports and music. The best athletes and the best musicians make mistakes when it hurts the most. A player might make a mistake in a big game. A musician might hit a sour note during a concert. But you know what they learned from it. They go, "OK I made this mistake. Here's what I've got to do better with my next game, with my next concert. Here's what I got to do in that in my next game and my next concert and not worry about it."

You take your mistakes, you look at them coldly, objectively. You figure out how to course correct, and you move on.

Adam: Speaking of moving on, we're going to move on to the end of this episode. So this is the end of episode 5, and in our next episode, we're going to talk about a bunch of different ways that you can study - which is interacting with the material. We'll see you then.

[Theme Music]

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Dinur: We look forward to seeing you next week.