What Is Blended Learning?

Presented by:
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Dr. Tim Wilson: Good day. We are your hosts for the 20 Minute Mentor series entitled What Is Blended Learning? I have with me today Ike Shibley from the, from Penn State Berks, who is an associate professor of chemistry.

Dr. Ike Shibley: And your other mentor is Tim Wilson. Tim's an assistant professor at the University of Western Ontario in the department of anatomy and cell biology.

Dr. Tim Wilson: To start with, we should figure out what is blended learning through a couple definitions. And the easiest way to describe this would be to say, the point is to reduce that face-to-face time we have in class.

Dr. Ike Shibley: And when you reduce the face-to-face time, you're replacing it with something outside of class. Typically it's technology. It actually doesn’t have to be, but that’s, anymore, we're using that outside of class through some type of learning management system, blogs, websites, something other than, you know, homework or write a paper. But you are, you’re right, Tim. We're reducing the amount of face-to-face time that you and the students share.

Dr. Tim Wilson: Right, and it's not changing what the course is designed for, you're just changing how you give it to the students or how the students interact with the knowledge. It’s the same content, it's just a different delivery.

Dr. Ike Shibley: And that’s a critical piece that we need to keep in mind as we're going through this 20 minutes because you're not changing anything other than how you're helping students to learn. You're still covering the same amount of information. I think too many people think that blended is a watering down somehow of the course.

Dr. Tim Wilson: Agreed.

Dr. Ike Shibley: So let's talk about the four main type of courses. We've got, anymore we've got a traditional face-to-face, which is what we've always, since the time of Plato and Aristotle, this is what we've assumed that faculty and students do. But we have a Web-enhanced where we still have the same amount of time inside the classroom, and that’s really the x-axis there is the time in the classroom. The y-axis then is increasing amounts of technology.

So at the extreme of technology is you're online, completely online, asynchronous delivery, but the sweet spot for me is that middle ground. The blending of your face-to-face with the technology, you using then the technology to make the face-to-face time even better than it was traditionally.
Dr. Tim Wilson: Yeah. You're setting yourself up to succeed.

Dr. Ike Shibley: And your students.

Dr. Tim Wilson: Absolutely. So how does this happen? It's kind of three simple steps, and it really boils down to getting the students to prepare ahead of time, come to class with some prior knowledge on which we might work with.

Dr. Ike Shibley: Yeah. Once they're in the class, that’s where we use those engagement techniques. I mean, engaging, I think, is the phrase that we need to keep you guys focused on for during class time.

Dr. Tim Wilson: Exactly. And then it's not finished there. We need to keep up with them, we need to come back. We don’t become Olympic athletes by training once. We need to go over and over again, and ask them about the material in different ways, outside of the classroom, such that it's a really neat continuum of knowledge translation.

Dr. Ike Shibley: So let's look at a theory that kind of ties in with what we're talking about, this before, during, and after, and that’s Bloom's Taxonomy of Cognitive Skills. There is actually an updated version of this, but I still like the old version. So before class then, what we're trying to get students to do is deal with those lower level cognitive skills. We want them to read, get some of the basics down, maybe some vocabulary, so that they at least know the content. I think one of the things we often see is that we tell students to read before class, and then we come to class, and we tell them what they should have gotten out of the reading.

Dr. Tim Wilson: Right.

Dr. Ike Shibley: Whoa. In a blended course you can't do that, you'll run out of time.

Dr. Tim Wilson: Absolutely. So we get these facts done ahead of time. Get the basic building blocks of what you want to build upon before they ever get to the classroom. It's not a dealing out the bricks of knowledge, they’ve already set the foundation.

Dr. Ike Shibley: And so you can use your in-class time now much more engagingly.

Dr. Tim Wilson: Exactly.

Dr. Ike Shibley: But as you said, after class you have to give the students time for rehearsal. You, and if you're applying and analyzing inside class, you would like them to start synthesizing material from your course and other courses, bringing it together to a more coherent whole in their mind.
Dr. Tim Wilson: Exactly. That’s that sort of metacognitive approach of, why am I reading this? Why am I understanding this? Where does this fit into the bigger picture? They're evaluating it both personally and in the level of the course, which is where we want to take them.

Dr. Ike Shibley: Yes. So let's look at a new book. This is seven particular pedagogical skills that faculty should have in mind as they're designing a blended course. This actually wasn’t written for blending.

Dr. Tim Wilson: No.

Dr. Ike Shibley: But it's perfect, so we want to talk a little about it in terms of the blended format.

Dr. Tim Wilson: So a great principle, and that’s how I would treat this, is to make sure these students come with some prior knowledge. And our goal is to make sure that prior knowledge is not all askew, we want to get them in the same line. If their prior knowledge is in opposition to what we’re talking about in class, that’s a confusing point, and we need to align everyone.

Dr. Ike Shibley: And students often have prior knowledge that they won't connect, and so in some ways it’s just helping to uncover some of the things that they’ve learned in other courses.

Dr. Tim Wilson: Yeah, it's useful.

Dr. Ike Shibley: Oh, my goodness. But the class time can be used to help them organize, and really the online could too. But how the students parcel out that information is critically important to how they're going to remember it because I think too many students just grunt memorize.

Dr. Tim Wilson: Agreed. That’s so short term.

Dr. Ike Shibley: Yeah. Right, they’ll study the night before the test.

Dr. Tim Wilson: Yeah, let's cram it in.

Dr. Ike Shibley: Yeah.

Dr. Tim Wilson: Doesn’t work.

Dr. Ike Shibley: No, and blending really gives you an opportunity, as a teacher, to help students organize.
**What Is Blended Learning?**

Ike Shibley, Ph.D. and Tim Wilson, Ph.D.

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**Dr. Tim Wilson:** Yeah. Layer it on, and by doing so, students get excited about it, and that really piques their motivation, which is an intrinsic piece of cognitive load. If they don’t have motivation, nothing moves into long-term memory, and it's the hardest one to study, but it’s the easiest one to play with.

**Dr. Ike Shibley:** Yeah. And the reason we want them to start making those connections is because we want them to master the content. We don’t necessarily want them to want to get a Ph.D. in our discipline, but we’d like that when they read a newspaper article or when they see a news show that talks about our discipline, that they have enough cognitive skills that they feel like they can evaluate what’s going on.

**Dr. Tim Wilson:** I agree.

**Dr. Ike Shibley:** So that mastery is critical in the motivation. I think in some ways these aren't hierarchy . . .

**Dr. Tim Wilson:** No, they're not.

**Dr. Ike Shibley:** . . . but if you activate prior knowledge, if you help them organize the prior knowledge and the new knowledge that’s coming in, and you give them motivation to do that, you're moving towards mastering.

**Dr. Tim Wilson:** Exactly.

**Dr. Ike Shibley:** And then we, as they're moving towards mastering we've got this feedback mechanism that we can do both face to face and online.

**Dr. Tim Wilson:** Otherwise they're kind of lost in this cloud of knowledge that we're starting to throw in front of them. It does become a little bit like wrestling a marshmallow, no one's going to win.

**Dr. Ike Shibley:** Yeah.

**Dr. Tim Wilson:** Feedback is super important, at the right time, to keep them on course.

**Dr. Ike Shibley:** And faculty, I think, don’t understand that online you can provide some of that feedback, homework. A lot of the textbooks now have homework, that they understand that you’ve got to give the students some feedback as to why they might have gotten something wrong because that just-in-time learning is moving them towards the mastery we want. It's not enough to say, hey, it's wrong.
Dr. Tim Wilson: Exactly. And that’s moving nicely through the hierarchical knowledge development that we all try to portray to the students, and it's super important and it can be quite covert.

Dr. Ike Shibley: Yeah. The students also, one of the developmental theories is Perry. And Perry thinks that students start at kind of a black-white learning. And you’ve got to understand where students are so you can move them up in that developmental stage because they also have to go through, at least according to Perry, this multiplicity where they think, all right, well, there is no black and white, but everything's up for grab, which is not healthy either.

We want them to move into this relativism, and eventually commitment in relativism, but we want them to understand that some knowledge is more important than others, and that the organization, the motivation, the mastery, all that ties together based on the students developmental stage. And if you know some of that, it helps as you're designing your blended course.

Dr. Tim Wilson: Absolutely. It also helps them continue on for lifelong learning, which is really the goal of our educational institutes, isn’t it?

Dr. Ike Shibley: I think so. So let's start doing some examples.

Dr. Tim Wilson: Yeah, because blended learning is really, it doesn’t like examples. We could do blended in any sort of fashion we want. But we have some examples here, in the fact that many courses are taught on a Monday, Wednesday, Friday. We get an hour each. Why not skip one of those days and just sample the water? Stick your toe into the digital environment, see what happens.

Dr. Ike Shibley: Yeah. The easiest, I think, is I’ve seen that faculty want to cut half the time. So if they're doing a Tuesday, Thursday, they'll only meet on Tuesdays. But even though that’s the easiest, it doesn’t necessarily make sense because sometimes what faculty do is they fit their ideas into a particular delivery format, so they say, well, I'm going to cut half the time. I've got to make it fit in this. It's still in some ways, I think, teacher-centered.

Dr. Tim Wilson: I agree, yeah. We need to step away and not be so concentrated on content.

Dr. Ike Shibley: Yes.

Dr. Tim Wilson: More concentrated on process, then content will come.
Dr. Ike Shibley: College teachers haven’t been well trained in this so, I think, blending scares them in a lot of ways because of that. So there are multiple examples here. I have a colleague this semester who's teaching one week, and then taking the other week off.

Dr. Tim Wilson: Okay.

Dr. Ike Shibley: But the students at least are having some trouble adjusting to that because they don’t necessarily remember what they're doing online. The organization of the course, I think, needed some work also, but as the semester is developing, the students are getting better at it. This is, I think one of the frustrations that I see with blended is that faculty try it once. Say, huh, it's not working. I'm going back to the, you know, the platonic model of standing up and just lecturing to my students.

Dr. Tim Wilson: Exactly. It may not work.

Dr. Ike Shibley: No. So there are multiple ways that you can do this, so don’t get stuck in a pedagogical rut. There's, every course can be slightly different in a blended model. So let's talk about what happens when we get inside the classroom because, I think, this is as we're talking here, that eye contact is critically important both for you and I, and for students.

Dr. Tim Wilson: Absolutely. They need to know where they sit in the spectrum of where the knowledge resides in their own minds. And so discussions are paramount when we have these together, so you don’t have time to stand up there and talk away, like the sage on the stage. Back away and let them become their own leaders.

Dr. Ike Shibley: And I'm a promoter of the clickers.

Dr. Tim Wilson: Me too.

Dr. Ike Shibley: So these are the little things that you can click in an answer, and I like it because it helps students get immediate feedback, and you can scaffold. You can start with these are your questions that they should have gotten prior to class.

Dr. Tim Wilson: If they do the pre-work.

Dr. Ike Shibley: Yep. You can even grade clickers, so there's a whole world of clicker pedagogy out there, but it's using engagement, right, students have to tactilely click on something. That helps them remember.
Dr. Tim Wilson: Sure does. Yeah. And seeing the graphics often, of the clickers coming up, they know right then if their approach is appropriate for learning the materials.

Dr. Ike Shibley: Yeah.

Dr. Tim Wilson: If they're getting things wrong, then it's a really nice feedback tool.

Dr. Ike Shibley: And we . . .

Dr. Tim Wilson: Immediate.

Dr. Ike Shibley: . . . we use small group work in our clickers.

Dr. Tim Wilson: Okay.

Dr. Ike Shibley: You can do individual.

Dr. Tim Wilson: Absolutely.

Dr. Ike Shibley: But we like, in our chemistry classes, students actually talk to each other and still put their own answer in.

Dr. Tim Wilson: Okay, yeah.

Dr. Ike Shibley: But they're in stable base groups of four throughout the whole semester.

Dr. Tim Wilson: Okay, oh, that's interesting. It's like think-pair-share, but just a little twist.

Dr. Ike Shibley: Yes.

Dr. Tim Wilson: That's really neat.

Dr. Ike Shibley: Yeah, yeah, yeah.

Dr. Tim Wilson: In anatomy we all have these wonderful cheat sheets that we use all the time. So I often encourage all the students to get up, and start to feel each other up. It's the best way for us to learn. So their own demonstrations are in front of them, and we often apply these demonstrations in front of class to the best actors of the group. And that works really well.

Dr. Ike Shibley: And in chemistry, the demonstrations are often some kind of chemical reaction, right? That gets the students' attention in a face-to-face environment that not as exciting online, although with YouTube, there's lots of examples of chemistry gone bad that they could access also.
Dr. Tim Wilson: Oh, good call. And that allows them to figure problems out before they occur.

Dr. Ike Shibley: Yes.

Dr. Tim Wilson: Which is a wonderful approach to problem solving.

Dr. Ike Shibley: I agree. The rating workshops we're talking about are the learning it from each other. Students will write something, bring it to class, and then talk. The idea that they talk to each other, oh, my.

Dr. Tim Wilson: It's laying their id on the line.

Dr. Ike Shibley: Yes.

Dr. Tim Wilson: And that’s really insightful for students to feel. They also do that with presentations, where they have to drop off all those inhibitions they may have and let's talk, let's become the sage on the stage, or let's try to mimic our leaders, and become a blended learner and a blended teacher ourselves.

Dr. Ike Shibley: And that sage on the stage is what we're moving away from.

Dr. Tim Wilson: We are.

Dr. Ike Shibley: We want to guide students through some kind of process, whether it's through a demonstration, whether it's through scaffolding clicker questions, but it's, that’s what we mean here with guided inquiry. That it's our job to help the students, face to face, get the feedback that they need so they don’t leave our face-to-face time with confusion.

Dr. Tim Wilson: Agreed. And it reinforces the cognitive, the metacognitive skills of presenting as well. What are the hang-ups that I have personally that I need to get over in order for me to succeed in life beyond university or college? Those are important, that we don’t teach our students about enough.

Dr. Ike Shibley: And if you're going to use guest lecturers, the face-to-face is a great time to do it also. If you're going to use reviews, face to face is a good time to do it because you want students to be able to ask questions right then and there.

Dr. Tim Wilson: And that’s a skill in itself, asking a good question.

Dr. Ike Shibley: Yeah.
Dr. Tim Wilson: It’s a hard thing. I still struggle with it.

Dr. Ike Shibley: And our students do. And I think our pedagogy is often such that we'll have a one-second wait, no hands go up, and we move on, blissfully unaware that the students are cognitively confused.

Dr. Tim Wilson: Exactly. And that’s where it's important that we come back, and we give some time for reviewing the material. Let’s rehash this again. We learn to walk by making mistakes. We learn anything by making mistakes. It’s the safest place, in class, to make these mistakes.

Dr. Ike Shibley: That’s why I like the group quizzes . . .

Dr. Tim Wilson: Exactly.

Dr. Ike Shibley: . . . that we've got on this slide because it's not cheating when you're learning from each other.

Dr. Tim Wilson: Exactly.

Dr. Ike Shibley: You're all learning. So the high stakes grading, we can agree that, yes, there is a function of grading, that we need to assign to students a grade at the end of the course. Okay, so face-to-face time is a good time to do that because we worry about online cheating and stuff like that.

Dr. Tim Wilson: Sure.

Dr. Ike Shibley: So, I don’t mind taking face-to-face time for three exams in the course.

Dr. Tim Wilson: Exactly. Yeah, and we mix up the proportions of how they're getting these grades, which is very important for them.

Dr. Ike Shibley: Right. So what might happen then, before online and after online, that’s what we're trying to get at with these. So the PowerPoint slides, I'm going to start with the second bullet there, is often put our PowerPoints up there. And that’s okay because then I don’t use them. I'm not tempted to use them in class. Like you need the base information, it's already on the course management system.

In class then, I can do the engaging activities we talked about, but it's not just about the PowerPoints. Web searches where we're actually getting a guided approach so that students have to go out and find information.

Dr. Tim Wilson: It’s a really interesting exercise for that pre-knowledge construction. If you have a skeleton version of a PowerPoint, and they have to fill in the
blanks, that’s a wonderful exercise ahead of time, and it feels like they’re getting something from it. Students love to have notes.

**Dr. Ike Shibley:** But this is where faculty start to freak out a little because it’s hard to design some of these pre-class searches, the pre-class online, find ways to make it work before so that it works in class. So we feel for those of you who are just starting this. I mean, quizzes and homework, I think, are a lot more straightforward. You write either a pre-class quiz so that they, you know they’ve done their reading, or you give them some rehearsal after to get them ready for that high stakes’ grading. Homework’s the same way.

**Dr. Tim Wilson:** Right. It’s also a little rudder for us though too. If you’re using your learning management software, you can actually look at how long did they spend on the quiz. If they spent three minutes, you know they’re working together, and that’s okay. But if they took 25 minutes to do 10 questions and they got 3 right, you know, that that person’s struggling.

**Dr. Ike Shibley:** Yeah. The collaboration online, I think almost everything on this slide talks about that and it’s, in my experience it’s the hardest thing to do because students have so much experience with online, with texting, with Facebook, with Twitter.

**Dr. Tim Wilson:** It’s tough.

**Dr. Ike Shibley:** It is, but try it. It may not be, work the first couple times. It’s going to take . . .

**Dr. Tim Wilson:** Yeah. Use your own experiences there. This is a chance for you to make the course completely different. There are no rules.

**Dr. Ike Shibley:** Yeah. So a podcast, a webcast are often things that we can do ahead of time to get them ready for what we’re doing in class also. We want to end here with institutional concerns because we’re still trying to figure out what blended courses look like, and each institution is going to have different policies.

**Dr. Tim Wilson:** Absolutely.

**Dr. Ike Shibley:** Because it takes a lot of time to design it. Are you going to get paid? Are you going to get a course release while you do it? Those kind of things every institution is going to have to wrestle with on their own. But we wanted to at least let you know that we’re aware of that, and we want you to think through those concerns.

**Dr. Tim Wilson:** And if you’re a new prof moving up through, the question of promotion and tenure is a huge one in the minds. If the administration doesn’t have
the right tools to understand what you're making here, you almost have to use a blended design to teach them as well.

Dr. Ike Shibley: Yes. So, okay, so we've talked about the fact that there's a reduction in class time, that's the definition of a blended course. You have to make sure the students do some work outside of class, and you want to monitor that work. That's, in a nutshell that's what we're talking about. That answers our question of what is blended learning? So our e-mails are here.

Dr. Tim Wilson: If you need to contact us, feel free.

Dr. Ike Shibley: Please do. And please remember that Magna would like to hear from you, so would we. So thanks.

Dr. Tim Wilson: Thank you.