



FLIPPING THE TRADITIONAL CLASSROOM: A How-To Guide for MOS Instructors

TestOut®



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INTRODUCTION

For centuries, we have learned from teachers who talk at us, who transfer their wisdom and insights to us. This model has been responsible for educating billions of people for centuries, and it's often been accepted without question as the gold standard for classroom instruction. However technology like Microsoft Office is unique and needs a new, different way of effectively teaching it.

Not only is the traditional classroom model repetitive and uninspiring for the teacher, but it also creates a passive, unengaging experience for the student. The student experience is so tedious, in fact, that it's a common sight in classrooms across America for students to be mentally zoning out, surreptitiously checking their phones, and falling asleep.

Meanwhile, by the time students get home and start to tackle their homework and reading material, they can quickly become lost and frustrated. At that moment, they could no doubt use some refreshers and pointers from their instructor; even their peers could play an invaluable role in helping them get over mental hurdles.

It is against this backdrop that the flipped classroom model has been gaining momentum among instructors all over the world. The flipped classroom is a teaching model in which the instructor assigns as homework that is typically administered in person, freeing up classroom time to do what the student traditionally does as homework. In practice, what this means is that instead of listening to the instructor's prepared lecture about Excel formulas, the students work on problem sets and other homework during class, with full in-classroom support of their peers and their instructor. And they watch their teacher's prerecorded lecture or other online training video as their homework assignment.

With technology evolving more quickly than ever the need has never been greater for an upgraded classroom.

For instructors unfamiliar with the flipped classroom model, it may sound like a recipe for cacophony and chaos. And indeed, if not done correctly, [it can quickly dissolve into disorder](#). But with proper training and preparation, it can result in a tremendously positive, wholesale change in students' engagement and interaction with the subject material. For the first time, students cannot sit at their desks and mentally check out, doze off or surf the web—they



must come prepared to work hard, ask questions of their instructors, and help and collaborate with their peers to solve problems and advance understanding.

Take something as seemingly straightforward as teaching the finer points of the Microsoft Office suite of productivity applications to students. In a traditional classroom environment, students would have to read about how to perform certain tasks, remember that information and then apply it later on at a completely separate time. Unfortunately, this just isn't how the human brain works. A flipped classroom that puts Microsoft Office in their hands from the beginning, however, lets them learn in a much more natural way. They're learning through application rather than through memorization. They're picking up a skill, in essence, that they wouldn't be able to (or would have a much harder time doing) in a more traditional environment.

THIS HOW-TO GUIDE IS DESIGNED TO HELP MOS INSTRUCTORS ACHIEVE THIS POWERFUL, HIGHLY EFFECTIVE CLASSROOM DYNAMIC AND TO APPRECIATE THE VALUE OF AN UNPRECEDENTED LEVEL OF INTERACTIVITY.

We will start by exploring the origins of flipped classrooms, and then explore the instructional rationale for flipping a classroom and what it will look like. Next, we will offer practical tips and advice for how to properly set up a flipped classroom from scratch. We will explore how to develop a curriculum and learning objectives, set expectations for students (as well as for yourself!), use technology to record lectures in engaging ways, and how to incorporate video instruction from online training providers like TestOut. We also will offer advice on how to manage classroom time and how to assess student learning. Finally, we will introduce you to the benefits of using TestOut's user-friendly, industry-leading courseware technology to build instructional materials for your flipped classroom.



HOW CLASSROOM FLIPPING GAINED POPULARITY

Instructors have long recognized the importance of getting students more engaged in their learning, and the features of flipped classrooms have probably been used in varying forms for decades. But in recent years, the education community has made a concerted effort to effectively incorporate technology into the classrooms, and the flipped classroom model has benefited immeasurably from this growing interest in technology.

The education community began [formally recognizing flipped classrooms as a distinct instructional model](#) in the late 2000s.

As educators have learned more and more about the benefits of this instructional model, flipped learning has become so popularized that it's now a buzzword.

Flipped classrooms can only work when there's a way for students to remotely access their instructor's teaching. The most logical and cost-effective way to do that is through the Internet. Indeed, classroom flipping has only exploded in popularity because educators can record their lectures and then post them online, making them easily accessible from anywhere. Furthermore, complementary web-based technologies, such as automatically graded quizzes and classroom-specific discussion boards, have paved the way for educators to begin flipping their classrooms in a comprehensive, strategic manner.

Given all of these technological advances, the time is ripe to consider flipping your classroom. In the next section, we'll explore the key benefits of this instructional model.





WHY YOU SHOULD CONSIDER FLIPPING YOUR CLASSROOM

At its essence, teaching [boils down to two basic steps](#): First, you must transfer the information to your students. Second, you must help them make sense of that information by contextualizing it and helping them to learn how to apply it in future settings. Most educators excel at the first goal – indeed, this is what the traditional model of education has set them up to do well – but educators often don't achieve desired outcomes with regard to the second goal. A flipped classroom solves that dilemma in one fell swoop, offering a number of key benefits to both students and their instructors. In this section, we'll explore these benefits in more detail.

MORE OPPORTUNITIES FOR INTERACTING WITH STUDENTS

When you flip your classroom, you're no longer standing in the front of the room delivering your prepared lecture. Instead, you're walking around the room, listening to your students engage in their learning. You can ask pointed questions, and you can allow them to ask questions of you one on one, as opposed to forcing your students to ask questions in front of the entire class.

A flipped classroom doesn't just create more opportunities for interacting with students – it also changes the shape that those opportunities take. Students who continue their education at home with their own access to Microsoft Office, for example, can come into the classroom more prepared. They can have specific questions that will help address any of the unique challenges that they face, creating a much more one-on-one learning environment in the process—even when the classroom itself is still a traditional size.

MORE HANDS-ON INSTRUCTION

One of the major benefits of the flipped classroom environment, particularly as it extends to Microsoft Office, is the idea that it helps create a much more active environment instead of a passive one. Instead of reading about how to insert clipart or perform a similar task in Microsoft Word, or hearing about the steps via a lecture and PowerPoint presentation, students can instead personally interact with the software at home. A major issue is that the typical school has a computer lab where students learn MOS and then when they go home the direct learning with the software ends because not all students have

the Microsoft Office Suite. Flipping your classroom using software like TestOut gives a student access to everything a computer lab offers as long as the student has the internet.

IMPROVED STUDENT COLLABORATION

When you have a software solution that is as robust as Microsoft Office in a flipped classroom, you're also creating the type of environment where student collaboration isn't just easier, it's practically the go-to way to teach moving forward. Students will naturally learn at their own pace, but through collaboration they will help themselves learn together. People who are picking up the functionality of Microsoft Excel much faster can help others not only make sense of the material, but also draw meaning and a deeper level of understanding than ever before.

Students no longer only have to rely on the educator to be the sole provider of answers – in essence, every student has the ability to become an educator as needed. This is another type of benefit that you wouldn't get if the students couldn't learn at home, particularly when you're talking about something with as many intimate features as Microsoft Office.





MORE RELIANCE ON STUDENT RESOURCEFULNESS

Students won't remember everything they learn in every class they take, which means that the point of an education isn't to create encyclopedias and churn out human computers, but rather to teach students how to become independent, productive, reasoned members of society and the workforce. The flipped classroom model, with its emphasis on engaging in the material, is naturally conducive to teaching students greater resourcefulness. When they engage and interact with the material and one another, they learn to identify what resources are at their disposal, to make sense of those resources, and put the resources to work to solve real-world challenges and problems.

The application to technology is almost self-evident. With so many updates and new software constantly coming out it is crucial for a student to have the skills confidence to teach themselves new programs.

MORE FLEXIBILITY FOR STUDENTS TO ABSORB YOUR LECTURE MATERIAL

In a traditional classroom, the student is reliant entirely on the educator to deliver information in a way that resonates personally with him or her. If a student is absent for an in-classroom lecture or simply zones out for a few moments, that material is essentially lost forever; there is no way to rewind and replay the material. With a flipped classroom, students at home can watch, re-watch and pause the pre-recorded videos at their own pace. If they want to get better at creating a Microsoft Office PowerPoint presentation, they aren't reading and re-reading a printed lesson plan time and again—they're interacting with PowerPoint and learning through the application of ideas. Of course, this also means that in-classroom time becomes particularly important for students to be present for, as there is no way for technology to fully capture the dynamism of real-time, personal interactions among students working together in groups. Even if students have Microsoft Office at home, they'll still be missing out on the intimate, organic nature of the flipped classroom.

While the flipped classroom model may sound great in theory, you may be wondering if and how it can work for you. In the next section, we'll delve deeper into how a flipped classroom actually is setup and functions.



WHAT YOUR FLIPPED CLASSROOM WILL LOOK LIKE

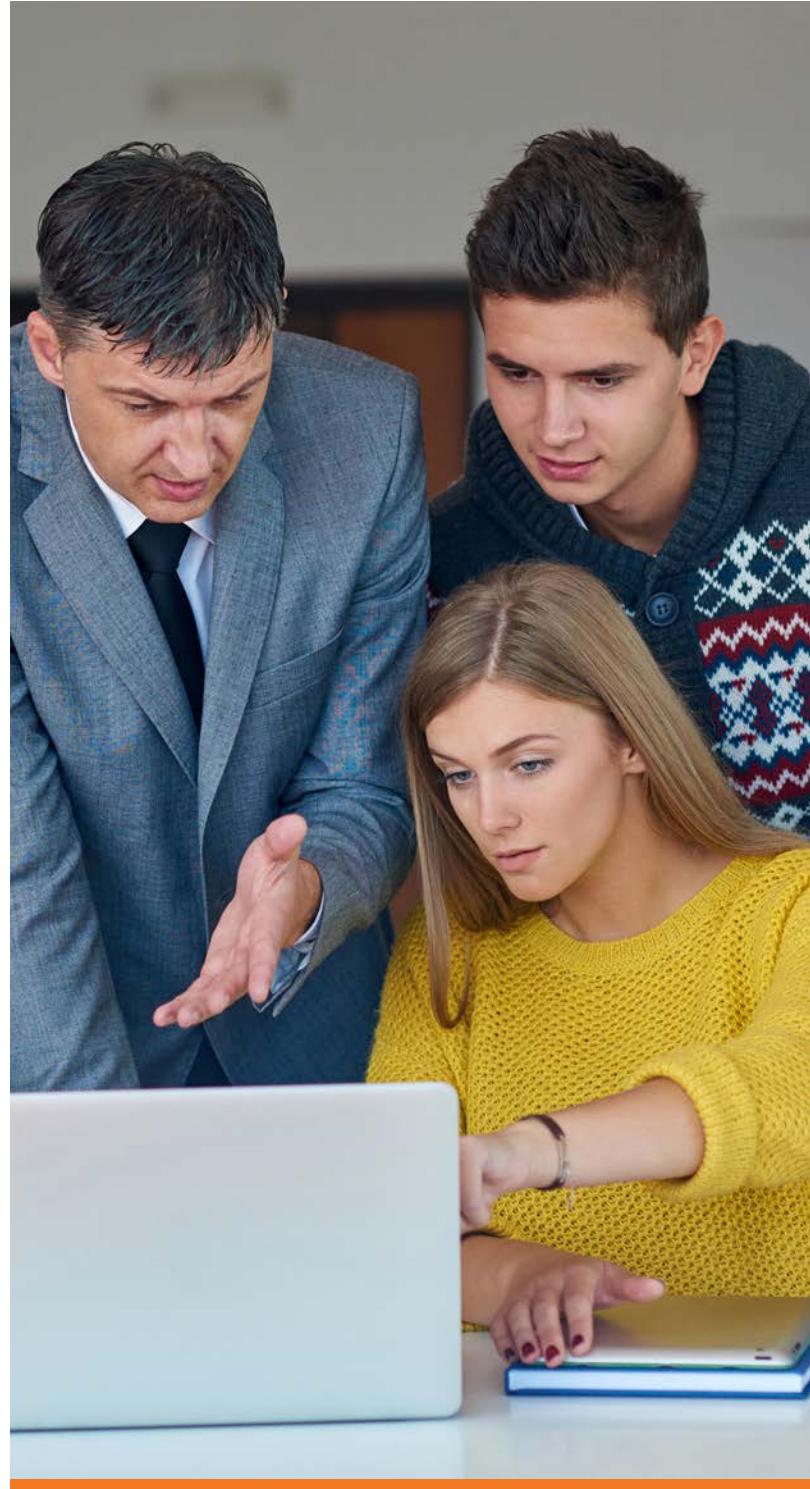
If you walk into a flipped classroom, the first thing you'll notice is that it is anything but quiet and orderly. Students aren't arranged in neat rows, and they definitely aren't sitting at attention. Instead, they're talking, working together in groups, moving freely around the room to utilize whiteboards and other classroom resources.

To maintain control over a situation that could quickly dissolve into chaos, educators must understand what they're getting themselves into and learn to exert a very different kind of control and classroom management style. Rather than try to keep students from expressing themselves out of turn and forcing students to stay focused on the subject at hand, the instructor's job is to encourage students to follow whatever directions their intellectual prowess takes them, and to work creatively and collaboratively to solve more than just the assigned problems and questions.

IN A FLIPPED STEM (SCIENCE, TECHNOLOGY, ENGINEERING, MATH) CLASS, AN INSTRUCTOR MIGHT USE A PRERECORDED LECTURE ABOUT HOW TO ACCOMPLISH A SPECIFIC GOAL IN MICROSOFT OFFICE, AND THEN HAVE STUDENTS WORK IN GROUPS ON A SAMPLE PROBLEM; THE STUDENTS MIGHT DO THIS WORK ON THEIR OWN DEVICES OR PERHAPS USE THE CLASSROOM HARDWARE.

They might change some of the properties of their Office document themselves in order to experiment with the results, or they might experiment with their own copy of Microsoft Office and do some additional research about how to resolve it.

Additionally, regardless of subject material, instructors can use the flipped classroom model to quickly assess where students are succeeding and where they're struggling. In a traditional classroom setting, instructors are limited to calling on individual students to assess mastery of the material on the spot. But in a flipped classroom, where students are all actively engaged in discussions and problem-solving, the instructor has the freedom to walk around and personally assess all students. Additionally, because students are already going online to listen to the lectures, they tend to post questions on discussion boards, allowing the instructor to pre-assess how students are faring, even before the instructor sees them for class.



Now that we've explored what a flipped classroom looks like and how it functions, we'll devote the next section to going through the nuts and bolts of how to flip your classroom.



HOW TO FLIP YOUR CLASSROOM

Although technology has enabled educators to effectively flip their classrooms, technology is not a solution in and of itself. Like all educational tools, the technology that you use to flip your classroom must be applied properly and supported by extensive planning, testing, validation, and fine-tuning. In this section, we'll explain the most important elements to focus on as you work toward a successful rollout of a flipped classroom, and we'll offer advice and examples to help you understand how to adapt these principles effectively.

DEVELOP A COURSE-SPECIFIC STRATEGY

The planning that goes into the development of a flipped classroom curriculum is not a one-size-fits-all model. Just as the teaching strategies that work in traditional classrooms will vary by instructor and subject, so too do the techniques used in flipped classrooms.

STEP ONE

Develop a solid understanding of your lesson goals and objectives, and design a curriculum that complements and advances those goals and objectives. Remember, your lesson goals can't JUST be to "teach students to have a better understanding of Microsoft Office." What SPECIFICALLY are you trying to get across? Do you want them to learn how to create PowerPoint presentations? Do you want them to be able to unlock the advanced calculations present in Microsoft Excel? The steps you take moving forward will vary based on these unique goals that you decide on early on. You would never, for example, want to use an entertaining video without first deciding upon how it will add instructional value to your lesson plans.

STEP TWO

Parse out what are the more basic, lower-level goals from the higher-order objectives. The more basic goals generally should be presented as the prerecorded lecture components, and the higher-order objectives should generally form the backbone of how you organize and structure your in-classroom instructional time. Teaching students how to create hyperlinks in Microsoft Office could be done in a quick video clip, whereas constructing detailed tables in Microsoft Word might be something to use for instructional time.

STEP THREE

Begin fleshing out exactly what you want your students to achieve during your in-classroom instructional time. You want to answer some fundamental questions about the Microsoft Office learning process, such as what you expect your students to be able to do with the entry-level information, and what kinds of activities will reinforce these concepts. As you start developing activities, you want to think about which ones are most appropriate for achieving your master goals and objectives. For example, is experimentation an appropriate activity? What about inquiry-based discussions and project-based learning?

STEP FOUR

Design assessments that test mastery of material that has been customized for the flipped-classroom experience. This is more involved than you may think. For example, if you're accustomed to giving pen-and-paper quizzes at the beginning of each class to gauge whether students did their assigned reading material, you will probably find that these simple quizzes are no longer appropriate or a strategic use of your in-classroom instructional time. Rather, your quizzes might evolve into a requirement that students post a minimum number of times on online discussion boards; by the depth and rigor of their postings, you will be able to assess whether they've read and understood the material. When you're working with Microsoft Office, tests could involve standing by a student as they execute the lessons you've already designed, proving that they know how to take those skills and apply them to their own copy of the software in real-time.



GET BUY-IN

No matter how innovative you may seek to be, your ideas and strategies for flipping your classroom will be wholly ineffective if you can't get buy-in from the intended beneficiaries of your efforts. Think about it this way: **MOST STUDENTS, NO MATTER HOW YOUNG OR TECH-SAVVY THEY MAY BE, HAVE LIKELY GROWN UP IN A WORLD WHERE THEY ARE LECTURED TO IN CLASS AND THEN DO ALL OF THEIR ENGAGING WITH THE LECTURE MATERIAL AFTER THEY GET HOME.** This is what they are familiar with and comfortable with and believe to be effective – and thus, this is why you must orchestrate an effective marketing campaign to sell them on the benefits of what you're doing.

Get yourself psyched up and feeling completely positive and in control. The last thing you want is to convey uncertainty and ambiguity toward your new classroom instructional model. You should do as much research and reading as you need to truly believe in the strategy you're deploying – and to be able to answer questions from skeptical students with full transparency and candor.

Impress upon your students at the beginning of every class what they'll be doing and what the intended outcomes are. Especially because breaking into small groups often becomes a license for students to lose all focus and engage in mindless banter, you want to remind them of precisely what you expect them to achieve – and the ways that you'll be monitoring and evaluating their progress. For example, you could have them spend a few minutes watching a video demonstration of what flipped

learning looks like, require them to do some of their own reading and research on flipped classrooms, and/or moderate a whole-group discussion about the expectations and execution of a flipped approach.

Create a technology bridge that eases the mental transition to the flipped classroom model. For example, you don't want to overwhelm your students with all of the bells and whistles all at once. Many people look at Microsoft Word as little more than a word processor, for example, but anyone who has ever spent an appreciable amount of time with it can tell you this is far from the truth. Some students will be slower technology adopters, so start with technology that is more intuitive, user-friendly, and familiar such as YouTube-style recorded lecture videos and basic PowerPoint presentations. Then, as you gradually introduce additional, more sophisticated technologies, you want to monitor how students are faring. The last thing you want is for a student who's technologically challenged to fail because of a limitation that has little to do with the subject being taught.



PREPARE SOPHISTICATED RECORDED LECTURE MATERIALS

When you stand in front of your classroom, you have considerable leeway in how you present material. You can pause to answer questions from students, and you can tell from your students' facial expressions whether they're following you and understanding what you're telling them. Not so with prerecorded videos, where you must choose your words carefully and where every single word counts.

When preparing to record your lectures you'll first need to use direct, engaging language to communicate and to be as precise and concise as possible. The reality is that if your students are bored and uninspired by what they're watching because you're too verbose or confusing, they will skip ahead or stop watching altogether.

Next, you'll want to **make your recorded lectures interactive**. This starts by not keeping your face on the screen the entire time. Although these types of videos are simplest for you to prepare, students do not want to watch a talking head for an hour. The reality is that students who watch web videos have very different expectations regarding graphics and visuals than if they were watching the same lecture in person. You must rise to the challenge by splicing in animations, hands-on demonstrations, digital white boards that you are writing on in real time, and text that appears on the screen to complement what you are discussing verbally.

Then, you should **introduce an assessment component to your recorded lectures**. For example, you could splice into your lectures pop-up questions and problems that your students must answer in real time. You could require students to take notes and then digitally submit a synopsis of the lecture. Or you could create discussion prompts and require students to participate in online discussion boards as they respond to your prompts.



DEVELOP A CLEAR SENSE OF WHAT YOU'RE GOING TO DO DURING CLASS TIME

When you flip your classroom, your goal shouldn't be to have your students work on the same homework assignments (worksheets, problem sets, etc.) that they traditionally would have worked on at home. The dynamics of in-classroom time lends itself to different kinds of assignments, where students are forced to learn from and help one another.

For example, one effective strategy would be to give students 20 minutes to work on a problem or question on their own; then, after that 20 minutes, the students would be required to discuss their progress and their strategy in a small group, and arrive at consensus about which strategy to ultimately submit to their instructor. All along the way, the students are [learning from one another – and learning how to work as a team](#) to arrive at logical, evidence-based conclusions.

Another example of an effective strategy would be for the instructor to not even assign in-classroom work until a pre-assessment, electronic quiz is conducted at the beginning of class to [gain real-time insight into where students are struggling](#). Then, the in-classroom assignments—and even the nature of group interactions—are decided by the instructor based on what the quiz results reveal.

ASSESS THE EFFECTIVENESS OF YOUR STRATEGY

No matter how much time and effort you put into developing your lesson plans and strategies, you must continually fine-tune them and improve them by assessing how students are faring. Fortunately, technology can help you conduct real-time assessments and analyse the results.

In a flipped classroom, for example, you could use remote desktop connections to actually monitor a student's screen from your own terminal. Even if you aren't physically standing next to them, you can still look over them as they work through the lessons they've already learned, allowing you to see exactly where students are struggling and even to pinpoint precisely which students are struggling and which ones aren't.



Another example would be to use standardized exams and quizzes developed by peers within your field (but not necessarily within the walls of your school) to allow you to [compare how well your students are performing in comparison to national or even global averages](#). You might feel better about your students' performance – or perhaps the data will be a sign you need to change your approach.



CONCLUSION

Technology has revolutionized the ability to flip classrooms, taking an idea that is great in theory into a viable, user-friendly strategy with mass appeal and utility for students today. Especially because today's students live in a tech-dominated world, the flipped classroom model has become crucial to ensuring students are getting maximum value and maximum engagement out of their education. With flipped learning, students gain more control over their learning, more class time for meaningful interaction with peers and their instructor, and more opportunities for their knowledge and knowledge gaps to be assessed and pinpointed. Teaching something as inherently complicated as Microsoft Office doesn't just become easier on behalf of the educator, but it becomes a much more natural, comprehensive process for the students as well.

At the same time, flipped learning demands a very different mindset on the part of the instructors. They must be prepared to redevelop the curriculum, convince themselves and others of the value of flipped learning, know how to use technology effectively, and look for technology-driven solutions to continually assess and fine-tune their strategy.

There is never a need to purchase and maintain individual, pricey hardware or software components; so both you and your students have full access to a broad range of simulated environments from within your Internet browser. There also is never a need for students to download and install special software, and never a compatibility issue between different operating systems and different versions of operating systems.

Unlike other, similar products, TestOut's LabSim software solution features a comprehensive suite of intuitive, easy-to-learn technology features organized around four main stages of learning within a flipped environment:

- 1) **"Tell Me"** – Students are taught key concepts and how they apply in the industry through video presentations and text lessons, which could easily be used for home study.
- 2) **"Show Me"** – Students are shown how to perform key tasks or how to identify components through video demonstrations.
- 3) **"Let Me Try"** – Students are asked to complete a simulation that combines the concepts they've learnt with tasks that they will encounter in the real world. Often, this includes installing and configuring hardware, installing drivers, managing operating systems, configuring network devices, etc.
- 4) **"Test Me"** – At the end of each section, students are tested to gauge how well they have retained what they've learnt and experienced.

ABOUT TESTOUT

The flipped classroom model is, at its core, about harnessing educational technology to more deeply and meaningfully engage students in the learning process. At TestOut, we understand the value of engaging students through effective use of technology, and we are experts at bringing this value to you via our custom-designed, online learning environments.

TestOut is a global education technology service provider and the leader in furnishing online learning environments to academia and IT professionals. Our proprietary LabSim software solution serves as the delivery platform for all of our key products, allowing you to seamlessly meld lab simulations, videos, text lessons and exams to create dynamic, interactive content for your flipped classroom.

LabSim automatically scores how well students performed on lab simulations and provides feedback on what the student did right and/or wrong. It also tracks the student's performance and time spent in each resource of the courseware.

For instructors, LabSim's Exam Builder tool allows you to easily build custom exams, quizzes, midterms, and finals; we even offer an extensive bank of questions and virtual labs for IT-related courses.

LabSim's multimedia approach (videos, reading, quizzes, virtual labs) fits every learning style, allowing maximum engagement and retention, especially during the crucial, at-home sessions where students are developing a base-level understanding of the material.

In fact, LabSim's content is so comprehensive that many instructors end up ditching textbooks all together and utilize TestOut online learning tools for their flipped classes.

To learn more about how TestOut's technology-driven learning solutions can help you effectively flip your classroom, go to

<http://www.testout.com>.

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