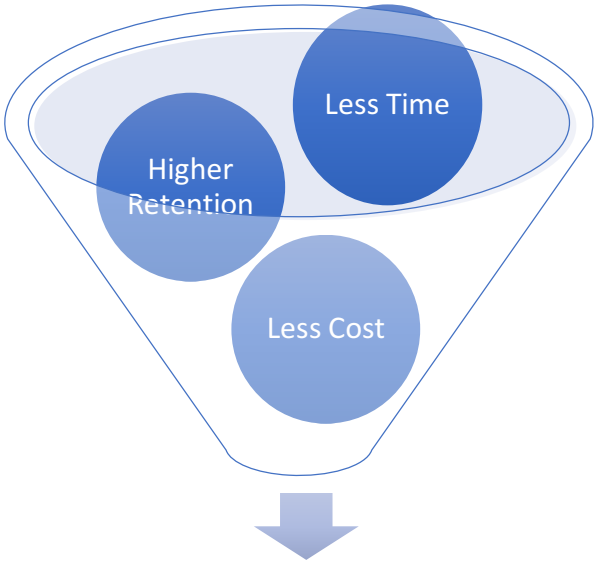

eLearning Benifits

Is Online Learning Effective Learning?

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Online Learning Increasing

Online learning has been on the rise in recent years, and it's not hard to see why. On the one hand, eLearning courses have become hugely popular by the simple virtue of being so much more convenient than traditional face to face courses.

Students can fit them around their existing responsibilities and commitments, and can engage with multimedia content and learning materials at whatever time is most convenient to them. Even better: they don't have to travel anywhere to study, they can simply log in to the virtual campus from the comfort of their own home or office.

There's a second reason why online learning has become so popular**: it's cheaper.** Cost can often be a prohibitive factor in why individual students don't enroll in courses they're interested in. This is also an issue for corporations who wish to encourage their employees to undergo further training but don't have much of a budget for conferences and training courses.

Online courses are easily accessible on much *smaller budgets*. In addition to the convenience and the cost, many students are turning to online learning courses because they have become a better way to learn. Those students who are serious about improving their understanding, learning new skills and gaining valuable qualifications are keen to enroll in the type of course that will be the most effective.

Five Reasons Why Online Learning is Effective

Here are five reasons why online learning can be more effective than enrolling in a face to face training course.

#1. Students learn more than in traditional courses

IBM have found that participants learn five times more material in online learning courses using multimedia content than in traditional face to face courses.

Because online courses give students full control over their own learning, students can work at their own speed. Generally, students work faster than they would do otherwise and take in more information. They can move faster through areas of the course they feel comfortable with, but slower through those that they need a little more time on.

#2. Retention rates are higher with online learning

Many offline courses struggle to retain students throughout the length of the course. The Research Institute of America have found that this is not the case with eLearning. Rather, online courses have increased student retention rates from anything from 25% to 60%.

It's been suggested that more engaging multimedia content, more control over how they take in the material and less likelihood of classes clashing with other commitments all contribute to this rise.

#3. Online learning requires less time investment

Many students are put off enrolling in a face to face course due to the time investment it will require. This generally involves the time to get back and forth to classes, plus the time spent waiting for tutors and other students. A Brandon Hall report on eLearning within corporations found that this style of learning typically requires 40-60% less employee time than learning in a traditional classroom setting.

It's also key to note that eLearning options generally allow students to split the time they are investing in the course in whichever way works for them. They don't need to be able to dedicate large chunks of time to the course: it'll work just as well if they can set aside half an hour from their lunch break each day.

#4. More frequent assessments reduce distractions

One of the great things about online courses is that assessment can become more of an ongoing process. This is good news for students as interspersing multimedia content and learning materials with regular short tests can improve student engagement. In fact, research from Harvard showed that using these short, regular tests *halved student distraction, tripled note-taking and students' overall retention of the content improved.*

It's also worth noting that the mort often students are assessed, the better their tutors can keep track of their progress. Increased student tracking means that tutors can step in earlier when assistance is needed.

#5. eLearning is the greener option

Online learning is certainly the more effective option for students, but it's also better for the environment. It has been found that online courses equate to an average of 90% less energy and 85% fewer CO2 emissions per student than traditional in person courses.

This certainly makes online learning and multimedia content a more effective method of education overall. Promoting and engaging in this kind of learning can help both individuals and corporations to do their bit for the environment and stick to their own personal environmental goals.

What MIT has to say about it

Article Credit
David L. Chandler I MIT News Office

It's been a couple years since a *New York Times* article declared the "year of the MOOC" —short for "massive open online courses." Now, for the first time, researchers have carried out a detailed study that shows that these classes really can teach at least as effectively as traditional classroom courses — and they found that this is true regardless of how much preparation and knowledge students start out with.

The findings have just been published in the *International Review of Research in Open and Distance Learning*, in a paper by David Pritchard, MIT's Cecil and Ida Green Professor of Physics, along with three other researchers at MIT and one each from Harvard University and China's Tsinghua University.

"It's an issue that has been very controversial," Pritchard says. "A number of well-known educators have said there isn't going to be much learning in MOOCs, or if there is, it will be for people who are already well-educated."

But after thorough before-and-after testing of students taking the *MITx*physics class 8.MReVx (Mechanics Review) online, and similar testing of those taking the same class in its traditional form, Pritchard and his team found quite the contrary: **The study showed that in the *MITx* course, "the amount learned is somewhat greater than in the traditional lecture-based course," Pritchard says.**

Even the least-prepared learn

A second, more surprising finding, he says, is that those who were least prepared, as shown by their scores on pretests, "learn as well as everybody else." That is, the amount of improvement seen "is no different for skillful people in the class" — including experienced physics teachers — "or students who were badly prepared. They all showed the same level of increase," the study found.

Even if a student with a lower initial score still ends the online class with a test score that would represent a failing grade, that person would nevertheless have made substantial gains in understanding, Pritchard says. "This actually is a case where a rising tide lifts all boats," he says.

The study's basic methodology has been widely used to study the effectiveness of conventional on-campus classes, Pritchard says. At least 65 traditional MIT classes have been studied using the same system of pre- and post-testing of basic concepts, he says, but this is the first time anyone has applied such detailed, systematic testing to the effectiveness of an online class. Pritchard says the results show improvement among

online students that is equal to or better than in any of the previously studied traditional classes.

In addition to the before-and-after testing, the study also analyzed in detail the homework and weekly test questions from each student, using an established technique called item-response theory, similar to the methodology used to ensure that results from standardized tests such as the SAT are consistent from one year to the next. The method uses a statistical analysis of each item in the test, Pritchard says, and includes a few of the same questions from other tests being compared, to ensure consistency.

Consistent results

Both of these methods of analyzing the impact of the online class give consistent results, Pritchard says: “All cohorts learn equally,” he says, whether compared on the basis of level of education, degree of preparation in math and physics, or other measures.

The one type of class in which students learned even more effectively than in either online or traditional classes, the study found, was an approach called “interactive engagement pedagogy,” where students interact frequently in small groups to grapple with concepts and questions. Such “constructive engagement” in the classroom is something education reformers have long pushed for, Pritchard says, and is already used in many MIT classes. While a similar analysis could be done for any of the other roughly 1,000 classes currently available as MOOCs, he says, it requires an upfront commitment from course instructors, who must prepare and administer extra tests, and evaluate the scoring of those tests. “It’s a lot of work,” Pritchard says.

Pritchard sees the new study as just the start of a process of mining the data that can be gained from these online classes, where every detail of students’ interactions — how long they spend watching lectures, how often they pause or repeat sections, how much of the textbook they read and when, and so on — is recorded and could be used for research aimed at finding what systems work best. “We can study what students do in a way that would otherwise require everyone to wear a headcam all the time,” Pritchard says.

Fiona Hollands, a senior researcher at Teachers College of Columbia University who was not involved in this study, says, “In my opinion, this study represents the most rigorous attempt to date to measure learning in a MOOC. This study provides an excellent demonstration of how learning in a MOOC, or in other types of courses, can be rigorously assessed. Applied to a broader population of students and a variety of educational settings, such investigations would provide valuable information about the relative effectiveness of different forms of educational delivery.”

In addition to Pritchard, the study was carried out by MIT postdocs Kimberly Colvin and John Champaign and physics undergraduate Alwina Liu; Qian Zhou of Tsinghua University; and Colin Fredericks of Harvard. *The research was supported by Google, the National Science Foundation, and MIT.*