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of Higher Education

February 21, 2013 by Jake New

Online Courses Could Widen Achievement Gaps Among Students

Low-cost online courses could allow a more-diverse group of students to try college, but a new study suggests that such courses could also widen achievement gaps among students in different demographic groups.

The study, which is described in a working paper titled "Adaptability to Online Learning: Differences Across Types of Students and Academic Subject Areas," was conducted by Columbia University's Community College Research Center. The researchers examined 500,000 courses taken by more than 40,000 community- and technical-college students in Washington State. They found that students in demographic groups whose members typically struggle in traditional classrooms are finding their troubles exacerbated in online courses.

The study found that all students who take more online courses, no matter the demographic, are less likely to attain a degree. However, some groups—including black students, male students, younger students, and students with lower grade-point averages—are particularly susceptible to this pattern.

Shanna Smith Jaggars, who is assistant director of the Community College Research Center and one of the paper's authors, said the widening gap is troubling, as it could imply that online learning is weakening—not strengthening—education equality.

"We found that the gap is stronger in the underrepresented and underprepared students," Ms. Jaggars said. "They're falling farther behind than if they were taking face-to-face courses."

Online learning can still be a great tool, she said, particularly for older students who juggle studying and raising a family. For those students, as well as female and higher-performing students, the difference between online and physical classrooms was more marginal, according to the study.

"So for older students, you can sort of see the cost-benefit balance in favor of taking more courses online," Ms. Jaggars said. "They might do a little worse, but over all it's a pretty good trade-off for the easier access. But where a student doesn't need online courses for their access, it's unclear if that is a good trade-off."

Kathy B. Enger, director of the Northern Lights Library Network and an online educator for a decade, said online learning isn't just about access. It can also offer an environment that encourages minority students to more easily speak up without worrying about "microaggression," such as a snicker or a rolling of the eyes, from a predominantly white classroom, Ms. Enger said. "There's more freedom for students to express themselves and feel validated in an online environment," she added.

The study suggested several ways to improve online courses, including screening students first and allowing only higher-performing students to take courses online. Ms. Jaggars admitted, however, that such a strategy could put some students at a disadvantage, especially older students who enroll in the courses specifically for easier access and who do fairly well in them.

"But then we have to figure out how to help other students succeed in these classes," she said. "We need a lot more teacher training, showing them tactics to use to try and reach out. I think it's difficult for faculty to know how to do that online. Not that they don't want to. It's just hard."

Ms. Enger said that if students are falling behind in online courses, it's generally because the professor teaching the course is not reaching out in the right ways.

"If it's not working, find out what's not working," she said. "Then make it work."

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Guest • 7 years ago
...and the stubborn resistance to online learning continues in the educational establishment. Too bad online has already won and they don't even know it yet.

37 ⌃ | ⌄ • Share ›

robjenkins ➜ Guest • 7 years ago

Yeah, that darn data. It can be so stubborn.

68 ⌃ | ⌄ • Share ›

> **cb_10** ➜ robjenkins • 7 years ago
>
> That's what Mark Twain thought as well, but I'm not so sure he was on the same page as you. Studies (or working papers?) like this feel like they're a decade behind. Screening students? Letting only higher-performing students take online courses? Some schools figured this out long ago. I'd add better counseling and student orientation to the challenges of online learning (including whatever systems are used) to the list, but again, this is nothing new for a lot of schools.
>
> The other problem with this sort of research is that it allows some readers to simplistically conflate the qualities that put students at risk with some kind of defect in online learning. The fact is that high-risk students are generally at greater risk in online and other distance learning courses because some of the things that put them at risk (weakness in self-motivation and organization, procrastination, poor reading and writing skills, etc.) are qualities that make online learning especially difficult.
>
> Of course, if you limit online and distance learning only to capable students, at some point you may run into accusations of bias against some under-served student populations for whom distance learning is the only available option for a higher education degree. At some point, studies have to go beyond identifying high-risk students and how to minimize their participation to strategies and tactics for improving their performance. Some of these will undoubtedly be long term, such as emphasizing the need for efficient reading and writing skills (and better developing them) and developing more independent learners.
>
> Online learning's not going away. Instead of trying to marginalize it, it's time to start preparing students for the world from which it arose. Because that's the one in which most of us are living and working.
>
> 71 ⌃ | ⌄ • Share ›

11127786 → cb_10 • 7 years ago

thank you; could not have expressed it better.

8 ∧ | ∨ • Share ›

ocasanas → cb_10 • 7 years ago

All true, bc, rob and cb, online learning is staying. What I noticed is that both instructors and students alike need to be accountable for their teaching and learning duties. More and more students are now realizing that in order to do well online, they must stay in touch with the instructor, and the instructor needs to provide tools to interact with students for virtual office hours.

It might seem more work at first, but it is rewarding to both sides because the teaching and learning happens in a "quiet" environment, without having to "fight" for a moment to ask the instructor an important question, like in the classroom. Some (or many "seasoned") instructors might not like it, but hey, if they want to teach, they better start working for it, not just doing research and gathering data. Go back to work people.

Just like yellow1 comments farther below, the research is based in old data. I connect with ALL my students via text message, even if it is just to tell them I just sent them an e-mail (to stay under the FERPA rules) with the information they required. My online students study ALL THE TIME.

6 ∧ | ∨ • Share ›

3rdtyrant → ocasanas • 7 years ago

Just because something is staying does not mean it should. Online education remains, and always will, a poor substitute for actual instruction. It remains, and always will, an avenue for unprepared students to fail easier and prepared and motivated students to succeed as they always have. It remains locked in a model of content delivery that is

scandalously inadequate when compared to in-class discussion and face-to-face interaction.

I don't understand why any professor would willingly dilute an already rigor-challenged curriculum by diffusing it through an online environment.

For those of you online acolytes who are so completely convinced that the Jim Jones of online education is the savior of higher education, answer this question:

Who is doing the work?

40 ∧ | ∨ • Share ›

fictitious ➜ 3rdtyrant • 7 years ago
"Who is doing the work?"...obviously not the student since they are by your definition "unprepared".

3 ∧ | ∨ • Share ›

embuckles ➜ 3rdtyrant • 7 years ago
Some people either need or prefer in person instruction. Some courses (such as medical courses and some science, etc.) are best done in person. However, on the other hand, some people either prefer online courses or find them convenient and do not have a problem with them. Learning can and does take place in a variety of settings. Frankly, I have suspected that the resistance to online education has more to do with teachers and professors fearing for their jobs than it does about the well being of the students. As for the answer to who is doing the work, this can be monitored in a number of ways. Not a problem. In person, on campus instruction will never go away. It IS and WILL CONTINUE TO BE COMPLEMENTED by various forms of distance education.

13 ∧ | ∨ • Share ›

proftowanda ➜ 3rdtyrant • 7 years ago
Who did the work that students do outside of class and turn in to you on paper?

Well, so you are the one who is spreading this uninformed assessment of online courses that leads students to think that online = easy.

Then they discover, in my online classes, that just showing up to sit and say nothing does not work online. Or that the chattery charm that earned participation points in the classroom, that did not require complete sentences and correct spelling, grammar, syntax, and more in conversation does not work online, where they have to construct everything in complete sentences with correct spelling, etc. -- and with citations to sources for everything that they write, too, as everything that they "say" must evidence synthesis of several specified readings as well as analysis. And several times a week, so later assignments must also reflect reading of and engagement with -- and, yes, citations of -- their classmates' contributions, too.

Online courses can be more rigorous in many way than face-to-face classes. This study tells you what we already know: Some cannot succeed online. Some of those are students. Others are teachers. We can be glad that you are not one of the latter who teaches online -- so, as in all things, please stop revealing your ignorance, lest you mislead students.

22 ∧ | ∨ • Share ›

iampatrice ➔ proftowanda • 7 years ago
Damn it all! I like you. ;-)

1 ∧ | ∨ • Share ›

cb_10 ➔ 3rdtyrant • 7 years ago
 Most research fails to bear out 3rdtyrant's premise, finding little significant difference, all other things being equal. Which again brings ups back to the problem with this paper - it focuses on known issues with online learning and emphasizes significant differences where an observer would expect

to find those differences, based on the well
known advantages and disadvantages of
online learning. While I understand and
agree we need research that examines and
confirms other observations, the article
makes it seem like this is a groundbreaking
paper.

3rdtyrant (whose rather authoritarian screen
name doesn't help their case) seems locked
themselves in a brittle, reductionist view of

see more

9 ∧ | ∨ • Share ›

iampatrice ➜ 3rdtyrant • 7 years ago
I don't suppose you would be willing to
refrain from denigrating language in your
attempt to logically argue your point?
4 ∧ | ∨ • Share ›

TinkerTailor1620 ➜ 3rdtyrant • 7 years ago
The key phrase in your response, with
which I can heartily agree, opened your
second paragraph and was, "I don't
understand."

You can say it isn't "actual instruction" as
many times as you like, but that won't make
it true. I'm afraid it is you who is "locked in a
model of content delivery" from which you
can't even let your mind escape for a brief
instant.

You are so focused on INSTRUCTION you
may have forgotten the whole purpose is
LEARNING, and learning can happen in
many more ways than you lecturing to a
bunch of butts in classroom seats.
3 ∧ | ∨ • Share ›

Guest ➜ 3rdtyrant • 7 years ago
In my online MA I'm doing the work...and
way more work compared with my f2f
undergrad days.
4 ∧ | ∨ • Share ›

sirach ➜ 3rdtyrant • 7 years ago
"I don't understand why any professor

I don't understand why any professor would willingly dilute an already rigor-challenged curriculum by diffusing it through an online environment."

Perhaps that is the crux of the matter - "willingly" - just how many faculty are told that they "must" offer online courses....so that their programs can survive...the numbers go up - the completion rates fall? Do the financial outcomes justify this?

1 ∧ | ∨ • Share ›

chattahoochee ➜ 3rdtyrant • 7 years ago
you mean, like cheating does not occur with your students?

∧ | ∨ • Share ›

pwappett ➜ 3rdtyrant • 7 years ago
It's the "and always will" bit that concerns me, 3rdtyrant. You may be right if instructors and institutions don't change their approach to design, development and delivery of courses. But don't they have as much of an obligation as the student to contribute to the learning environment? There are so many ways in which we can, as a sector (and, let's face it, as educators) do to improve the way in which we provide material that is engaging, test comprehension at multiple points along the journey, adapt the material for those that may be struggling etc. It takes more work up-front, but will surely lead to better outcomes. So, "who is doing the work?" ... not enough of us, unfortunately; we think that it's the responsibility of the student to fit into the model that's been around for hundreds of years.

1 ∧ | ∨ • Share ›

fictitious ➜ cb_10 • 7 years ago • edited
Let's not be PC about it. Look at the demographic of the population for the study...**underprepared** community- and technical-college students. I agree with the conclusion, the characteristics of these

students that cause them to enroll in these institutions and fail in traditional courses would be exacerbated in distance courses, those being motivation problems, lower success in K-12, and lower overall competency. If the student with these conditions is not forced to attend class they will not be motivated enough to attend the online lecture.

As far as "allowing only higher-performing students to take courses online" this will happen by a form of natural selection. In other words those that aren't motivated will fail out and hopefully move on to something that does motivate them and lead to some sort of success. Let's not forget that there are many resources online for students to help themselves if they are struggling but then we are back to the motivation problem. Our distance graduate program requires the same high level qualities for admission as our on-campus students and we see the same characteristics and results. This is not news. Not everyone is cut out for higher education in any form and we can't force those that don't want the education to succeed in any advanced educational setting.

OR we could dumb down everything to cater to those that are "underprepared" and lose the higher performing students.

20 ∧ | ∨ • Share ›

fossa777 ➔ fictitious • 7 years ago

Thank you for getting at the crux of the situation. "OR we could dumb down everything to cater to those that are "underprepared" and lose the higher performing students." This is one of the biggest problems with higher education, of any sort, in the US now! We are focusing so much on accessibility for anyone and everyone that our entire education system has become frighteningly watered down. There is no doubt that we have failed miserably at making college more accessible AND keeping rigor high! Take a student from 75 years ago and plop them in

an average college classroom today and they would probably be horrified. When will we come to the non-PC realization that no, not everyone is cut out to succeed at the university level, trying to shoe-horn them in at that level will not work. When does that ever work? Let's focus on better preparing grade and high school students to succeed at the university level and leave college admissions to what they should be, acceptance for the best and brightest only, no matter who they are or what their background is!

4 ∧ | ∨ • Share ›

iampatrice → robjenkins • 7 years ago

You must know that "data" like "numbers" can be interpreted, re-interpreted, and misinterpreted depending on the researcher and the researcher's message. This is not news. So the question becomes how was the study designed, applied, and interpreted? Was there any bias? Is there another way of interpreting the data? Is there anything the researchers left out, or didn't ask? If yes, why? Finally, even if it is true (the data), what might be at the root of this data? Maybe the students who scored low have poor study skills, which would only have a light shone on them, in what is essentially, independent study. In short, data doesn't have to be stubborn, as you so cleverly put it, but it is subject to flawed reasoning, access, and design.

2 ∧ | ∨ • Share ›

antiutopia → Guest • 7 years ago

It's pretty anti-intellectual and irresponsible to attribute data-driven analysis as "stubborn resistance." I teach online regularly. There's no question that students who struggle with education overall are going to struggle even more in an online classroom. This findings are validated to me, personally, every semester that I teach.

44 ∧ | ∨ • Share ›

socratease2 → Guest • 7 years ago

20 people liked a response that completely missed the point of the article? That is discouraging. I was under impression that people who troll the CHE might have a bit

more cognitive processing power. What about the content of the article makes you think it is about the establishment resisting on-line learning? Winning, losing, what are you talking about? The point of the article is about disparities in achievement between student groups. So, guess you lost and don't even know it yet.

10 ∧ | ∨ • Share ›

iampatrice → socratease2 • 7 years ago
You may have missed aspects of the article as well. What questions might we ask about the data, as reported?

1 ∧ | ∨ • Share ›

Guest → socratease2 • 7 years ago • edited
Your comments are ironic as I work all day long with data - I am an institutional research analyst. I am also taking my MA in online education and I have also taught online courses. I am very aware of the problem with research studies like the one in this article which have a very small sample size and then are used to make broad sweeping statements about a whole sector of education. In this case, the same arguments could be made about face to face instruction - so why bring "online" into the equation. It's misleading. Certain groups do better with online education than with face-to-face. Certain groups do better with face to face. One form of education is neither better nor worse than the other. It is better to have both because more options are better in terms of meeting students diverse needs than only having one learning option. That's the salient point in all of this.

Finally, my comment about resistance to online education (and education technology in general) that is exhibited by many educators is based on years of experience implementing edtech in schools and colleges across North America. I was once told by an esteemed prof at a major university that the Internet was a fad. Same with Social Media. So NOT the case.

4 ∧ | ∨ • Share ›

Captain Lyre Calliope • 7 years ago
Wait, how are we defining 'achievement' here? Is the measurement based upon earning a degree? Or income

measurement based upon earning a degree? Or income
potential?

4 ∧ | ∨ • Share ›

jdielsi • 7 years ago

Was a study done on the preparedness of students for college in
general? Was there a difference in self-motivation for online and
face-to-face delivery? Prior academic record? Were students
taking both online and face-to-face courses included? How did
they fit into the student outcomes? Was online learning delivered
synchronously or asynchronously? Did it make a difference in the
results?

Many questions that may have been covered in the report.

12 ∧ | ∨ • Share ›

krusa • 7 years ago

Yes, the online world levels the field relative to students sharing
their views and not being judged on the basis of their gender,
race, or physical attributes. That's real progress.

But as for the lower academic performance of under-represented
and under-prepared students, it's no surprise that they struggle.
Online courses demand a certain level of reading comprehension
and writing skill. At my university, students are given
"accommodation" only if they present documentation of a
"disability." Lack of standard English fluency and low academic
writing skills do not constitute disability. Often in my (graduate, M.
Ed.) classes it's obvious that a student's thinking is of high quality,
but without the ability to express self in writing, the student might
not succeed in class - or in the work place, where job
expectations include written communication skills.

(SIDEBAR: and by the way, I know my online students much
better than I
ever knew my classroom students. Online, they must participate
in
discussions; they cannot duck out.)

29 ∧ | ∨ • Share ›

mykgarn • 7 years ago

It would be most useful to be able to view this report...the
interpretations stated are tantalizing - but undecipherable as they
are stated. As with learners with disabilities and the sub-groups
listed here - technology has the potential to address challenges
and improve learning (as Ms.Enger points out) it would be
academic malpractice if we did not identify places where
designers (inadvertently) build barriers instead of on-ramps...

7 ∧ | ∨ • Share ›

Eileen Abels • 7 years ago

Another worry for online education.

2 ∧ | ∨ • Share ›

yellow1 • 7 years ago

I've only just started looking at the study, and one issue I found is
that the students examined were from Fall term of 2004. It was
also quarters, so a term issue could be at hand. I can tell you that
online teaching, online teacher training, our LMS, etc. have
changed dramatically since 2004 at my CC. One, we actually train
all faculty on the LMS whether they teach online or not. Two, the
advances in smartphone, social media, and other technologies
make me want this study duplicated now/with Fall 2012 students.

Almost 49,000 of the students studied were enrolled in an online
ESL or Developmental class. I don't think I'd be creeping too far
out on a limb to say this population is probably not best served by
online.

24 ∧ | ∨ • Share ›

> **cb_10** ➜ yellow1 • 7 years ago
>
> No wonder the description of the study feels almost a
> decade old.
>
> 2 ∧ | ∨ • Share ›

> **chazzbo** ➜ yellow1 • 7 years ago
>
> Absolutely yellow1:
>
> Just as not all who teach should be online teachers; not all
> who learn should be online learners.
>
> I believe one key to success is to screen potential online
> learners to assess the learner's level of preparation for the
> skills necessary to learn online. A few years ago a FIPSE
> grant awarded to Lake Superior State University in
> Michigan resulted in an assessment instrument to
> measure learner suitability to study online. Such
> assessments are beneficial to both learner and institution
> to assure that both sides of the online teaching and
> learning equation are well-matched.
>
> 12 ∧ | ∨ • Share ›

> **TinkerTailor1620** ➜ yellow1 • 7 years ago • edited
>
> Oh my. I took my first online training course in 2003, and
> the entire ecosystem, online methods of teaching, and just
> about everything I initially learned has been changed
> completely, at least twice since then - at least at the two

completely, at least twice since then – at least at the two universities at which I teach. Using a sample from that far back could not possibly be representative of what going on today, I wouldn't think.

1 ^ | ∨ • Share ›

mamakatephd • 7 years ago

I have taught online for several years now, and I can see that there are indeed differences among students that take online classes. There are some students who clearly should NOT take online courses. But then again, we are talking about adult students who make choices for themselves. We can advise them not to take courses online, tell them how difficult it is, tell them they are not equipped to succeed, etc. etc. But are we going to start screening out students who we judge to be unprepared based on criteria beyond the normal prerequisities? Based on what?

Most of the problems I see online are not easily identifiable beforehand -- failure to follow directions, failure to submit work on time or not at all, emegency situations -- actually all the same factors that that we see in the traditional classroom. It is not generally an inability to learn the course content that makes students fail, but rather other attitudinal factors, just like in on-campus classes. These are not a problem solely in the online environment.

Studies like this one reinforce the idea that online courses are somehow inferior to traditional face-to-face classes, when the very question itself is biased. How about a study that says that some students may actually do BETTER in online classes than in the traditional classroom?

28 ^ | ∨ • Share ›

    inlibrarian ➔ mamakatephd • 7 years ago

    Since online and hybrid classes are the fastest growing segment of our school, would be grateful if our university would require a computer skills test and a basic skills course if the student does not pass the skills test. As it is now, I am teaching these skills one on one in the library. I also have a creeping suspicion that someone is telling students they don't actually need to have a computer and the internet because they can go to the library. I am seeing these students all the time.

    13 ^ | ∨ • Share ›

       apl68 ➔ inlibrarian • 7 years ago

       Public libraries see some of this as well. A truly motivated and persistent student might do it this

motivated and persistent student might do it this
way if computer time at the library was not at too
much of a premium. But it would be great
challenge.

2 ⌃ | ⌄ • Share ›

kohoutek1976 ➔ inlibrarian • 7 years ago

Oh, yes! We public librarians see it all the time, too!

2 ⌃ | ⌄ • Share ›

proftowanda ➔ inlibrarian • 7 years ago

That would be an improvement on a few -- a very
few, fortunately -- students I see who are stumped
and stopped upon not being able to do
assignments and even tests on IPhones.

Yes, I also see the students that you describe, too,
all of the time, until I convince most of them to deal
with it or drop.

2 ⌃ | ⌄ • Share ›

annon1234 ➔ mamakatephd • 7 years ago • edited

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Steve Kolowich
🐦 @stevekolowich

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🐦 @jryoung

Jeff Young is the senior editor for technology coverage and writes the College 2.0 column.

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