Editor's Note: This is the first article of a two-part series.

Universities have been teaching online for more than 30 years, and professors and colleges who pioneered the approach have done plenty of research over that time hoping to find what works best. So what are the major lessons learned, and how can people just starting online programs build on that foundation?

In medicine, clinicians are generally guided by research that has followed large groups of patients over long periods of time. The Framingham Heart Study, for instance, has followed generations of patients since 1948 and has steered the decisions of doctors who are trying to prevent and treat heart disease.

Unfortunately, there isn’t a perfectly analogous study in online higher education.
But there have been a few meta-studies that attempted to draw conclusions from hundreds of smaller investigations.

Much of the earliest research into online learning focused on whether it was as good as classroom teaching. In its early years, there was skepticism about online teaching across higher education, even though online education built on the existing foundation of correspondence courses and degrees like those offered by Britain’s Open University, where students originally learned via old-fashioned snail mail—sending assignments in an envelope and getting back graded papers the same way.

By 2001, an analysis of more than 300 studies found that teaching online could be as effective as in-person education, boasting that there was “no significant difference” between the two modes, if done well. While “we’re not worse!” may seem like a timid rallying cry, the research helped convince many college leaders to continue or expand their digital-education experiments.

More recently, questions turned to which types of online teaching worked better than others. For instance, is blended learning—where some learning takes place in person and some online—more effective than a purely online approach? A 2010 “meta-analysis” by the United States Department of Education found there was not yet enough evidence to say whether all-online education or blended education efforts were a better option, but it did attempt to offer a breakdown of promising approaches. It found that “on average, students in online learning conditions performed modestly better than those receiving face-to-face instruction.”

Even those studies are quick to point out that there may never be an easy answer to which techniques work best. Those who try to measure which teaching methods are more effective quickly find themselves sinking into a morass of variables—the quality and training of the instructors, the preparation of the students, the availability of support services outside of the classroom, and more.

That said, here’s some evidence-based advice, drawn from reading some of the available research and interviews with long-time online-learning leaders.

First, decide whom you want to reach.
A key decision when setting up online programs is, Whom do you want to reach?

Southern New Hampshire University’s campus programs serve 18- to 22-year olds who want a campus experience. But when the university decided to move into online programs back in the 1990s, they decided to target a new audience—“adult students”—who are often already working or raising families and trying to finish their degrees. Many of those students are in the military and looking for education but not able to get to a campus.

Brian Fleming, executive director of an innovation center at Southern New Hampshire University called the Sandbox ColLABorative, says that a common mistake when setting up programs online is assuming that if you build them, students will come. But to reach students who aren’t able to get to campus, new supports need to be created, and marketing efforts. “It’s a pretty big investment for schools,” he says.

Tax records for the university reveal that in 2015, Southern New Hampshire spent more than $37 million on television, radio and Internet advertising to recruit students. That investment has paid off, as the university’s online programs have grown from about 8,000 students in 2001 to more than 100,000 students today, most of them adult students.

Fadl Al Tarzi, who leads a startup online institution called Nexford University that hopes to serve students in the Middle East, Asia, and Africa from its base in Washington, D.C., agreed. “Try to analyze why your students or your learners are going online, and design a product that’s fit for purpose rather than a digitized version of your existing model,” he says.

For Nexford, the focus is business degrees, with plans to deliver lower-cost MBAs and undergraduate business degrees aimed at “middle-income markets of the world,” in countries where it is difficult or impossible for parents to send their children abroad to study.

Because the online audience—and the services and support they require—can be so different, Fleming and other college leaders recommend considering turning to an outside company to help run online programs, if an institution can afford such a
service. Those companies are called online program managers, or OPMs, and one online consulting firm recently published an overview of the various providers and what to look for.

Setting up new online courses requires more than keyboards; it also takes a big investment in human and financial resources (Photo: Pixabay).

**Hire instructional designers.**

Colleges with extensive online programs are increasingly hiring new types of staff members to support their instructors and to help design courses. They’re known as instructional designers.

Sean Hobson, chief design officer for EdPlus at Arizona State University, another U.S. college that serves tens of thousands of students online, says his main advice to colleges looking to move online would be to hire instructional designers. (The university recently published a study, titled Making Digital Learning Work, that goes into detail about how it built its online programs, noting that it takes a 250-person team to support its online effort.)
In 2016, there were an estimated 13,000 instructional designers on U.S. campuses, according to a report by Intentional Futures. And that number seems to be growing.

These professionals can assist in many aspects of moving a campus online, says Hobson, who adds that they work “at the intersection of traditional pedagogy, academic culture, student outcomes, change management, education theory and innovation.”

One challenge for those working in the Middle East, however, is that instructional designers can be hard to find outside of the United States, Australia and Canada, said Hobson. But he suggested that universities in the Arab region could create a graduate program in instructional design and start growing talent locally.

Establish strong human contact in the first three weeks.

Many professors who have taught online have noted how surprised they are that they can still form relationships with students. Experts on online learning say that making connections is key, especially early in the course, so that students will be motivated to do their work.

“There has to be some humanness, some sense of human presence, some sense of human caring,” says Curt Bonk, a professor of instructional systems technology at Indiana University–Bloomington who travels the world giving talks and seminars about online education. “There has to be the sense that ‘I’m not in this alone,’ that it’s not a system of clicking.”

To encourage such efforts, the California State University–Channel Islands, the youngest of the 23 California State campuses, offers a two-week training for professors starting to teach online called Humanizing Online Learning. The professor who designed the course, Michelle Pacansky-Brock, a faculty mentor for the Digital Innovation for the California Community Colleges Online Education Initiative, suggests that professors introduce humanizing features such as having students conduct class discussions by sending short video answers to question prompts that everyone in the class can see. Tools like VoiceThread or FlipGrid let professors create a closed online space where only those in the class can see the videos.
And she stresses that the professors shouldn’t worry about appearing polished or perfect in their video reactions to students’ comments. “If it’s a class conversation, why does it have to be this flawless, polished thing? Conversations don’t happen that way. There should be some spontaneity,” she said in an interview with EdSurge last year. “That’s a hard thing to get a professor to embrace, but I think once they can do that, it starts to change things. They’re more approachable to their students.”

Some of the advice supported by the last 30 years of research points to lessons that those interested in starting online courses in low and middle-income countries don’t always want to hear: Creating appropriate and properly functioning online and blended courses takes a large investment of staff time, research, and money.

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