

Perhaps no other aspect of digital learning has received as much scrutiny and has been subject to as extensive research over the past twenty years as student outcomes in on-campus versus online programs. The first official study that I remember was conducted in early two thousands by the Open University or the UK Department of Education. Our US sales reps at the time carried this study with them on calls along with the study conducted by Brazil's Ministry of Education, which also concluded that student studying via distance learning performed as well as students studying face-to-face. The next big governmental study was a 2010 meta-study conducted by the US Department of Education, which analyzed 1,000 empirical studies, reaching the same conclusion, namely that online students perform as well or slightly better academically than on-campus students studying the same material. Comparison of graduation rates came from simple data audits; I will be back to you on this topic with supporting evidence under another cover.

Over the past decade or so, universities around the world that offer both on-campus and online programs simultaneously using the same materials, assessments and faculty have been able to compare performance of students learning in both modalities. The results of these studies, which are easy and quick to conduct, have been encouraging and contributed to the proliferation of online learning.

In the US alone, according to the National Center for Education Statistics (NCES), 3,928 postsecondary institutions are providing online degrees to approximately 8.5 million learners. Virtually all US public universities offer degrees online and over 50% of all university students in America are studying at least one online module with around 36% earning their degree 100% online.

As you know, over the past 5 years, the UK's post-secondary online enrollments have also been growing at a considerable clip. Analysts say that the growth in online revenue in the UK is projected to reach an amazing USD\$14.42 billion by 2029, "driven by changing customer preferences and the increasing demand for flexible and accessible education options."

Attached below are six extensive white papers on the quality of online learning. I have further pulled out a few select studies / references from these white papers that might be of particular interest to you.

**US Department of Education meta study (2009) Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies**

Summary: A systematic search of the research literature from 1996 through July 2008 identified more than a thousand empirical studies of online learning. Analysts screened these studies to find those that (a) contrasted an online to a face-to-face condition, (b) measured student learning outcomes, (c) used a rigorous research design, and (d) provided adequate information to calculate an effect size. As a result of this screening, 50 independent effects were identified that could be subjected to meta-analysis. The meta-analysis found that, on average, students in online learning conditions performed modestly better than those receiving face-to-face instruction.

<https://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>

### **UK Parliament Research Briefing (2021) Post Note on Distance Learning**

**Summary:** Evidence suggests that distance learning can be as, or more, effective than in-person instruction at achieving learning outcomes for students in some subjects and contexts.

<https://post.parliament.uk/research-briefings/post-pn-0639/>

<https://researchbriefings.files.parliament.uk/documents/POST-PN-0639/POST-PN-0639.pdf>

### **Humanities & Social Sciences Communications**

“Online vs. In-person learning in higher education: effects on student achievement and recommendations for leadership.”

**Summary:** Study analyzing the outcomes of online vs. in-person learning. Online outperformed in-person cohort. This study also provides other articles on this topic.

<https://www.nature.com/articles/s41599-023-02590-1#Sec13>

Bailey, A., Vaduganathan, N., Henry, T., Laverdiere, R., & Pugliese, L. (2018). Making digital learning work: success strategies from six leading universities and community colleges. Tempe, AZ: Arizona State University.

Bernard, R., Abrami, P., Lou, Y., Borokhovski, E., Wade, A., Wozney, L., Walseth, P., Fiset, M., & Huang, B. (2004). How does distance education compare with classroom instruction? A metaanalysis of the empirical literature. *Review of Educational Research*, 74(3), 379-439.

Esfijani, A. (2018). Measuring quality in online education: a meta-synthesis. *American Journal of Distance Education*, 32(1), 57-53.

Russell, T. (1999). The no significant difference phenomenon: as reported in 355 research reports, summaries and papers. North Carolina State University.

Seaman, J., Allen, I.E., & Seaman, J. (2018). Grade increase: tracking distance education in the United States. Babson Survey Research Group. Retrieved from <https://onlinelearningsurvey.com/reports/gradeincrease.pdf>

Wu, D.D. (2015). Online learning in postsecondary education: a review of the empirical literature (2013-2014). New York, NY: Ithaka S&R. Retrieved from [https://sr.ithaka.org/wp-content/uploads/2015/08/SR\\_Report\\_Online\\_Learning\\_Postsecondary\\_Education\\_Review\\_Wu\\_031115.pdf](https://sr.ithaka.org/wp-content/uploads/2015/08/SR_Report_Online_Learning_Postsecondary_Education_Review_Wu_031115.pdf)

Shachar, M., & Neumann, Y. (2010). Twenty years of research on the academic performance differences between traditional and distance learning: Summative meta-analysis and trend examination. *MERLOT Journal of Online Learning and Teaching*, 6(2). Retrieved from: [http://jolt.merlot.org/vol6no2/shachar\\_0610.pdf](http://jolt.merlot.org/vol6no2/shachar_0610.pdf)