College and Workplace Readiness

Preparing Students for the Future with Online Instruction
EXECUTIVE SUMMARY

Educators at every level face pressure to expand student achievement. College officials increasingly urge their K-12 counterparts to better prepare students for post-high school academics. Likewise, more and more employers seek critical thinking, communication, innovation, and problem-solving skills from new college graduates. But post-secondary institutions too often neglect to teach these important skills.

In response, educators can use a variety of strategies to correct the shortcomings of their institutions. For example, K-12 administrators can initiate outreach to colleges and universities. University officials can collaborate with businesses. And educators at every level can further incorporate technology into the learning process, using the power of video-based instruction to help close student skill gaps.

Online learning has the power to be a staple in the academic field—to provide staff and faculty with professional development, to supplement classroom curricula, and more. As young people increasingly expect access to the latest technologies—in the classroom and in and workplace—online instruction is an ideal solution for supporting and accelerating college and workplace readiness initiatives.

PREPARING STUDENTS FOR THE REAL WORLD

K-12 and higher education officials can no longer simply provide students with learning that is focused on graduating them from a high school, college, or university. On the contrary, students need skills to help them succeed beyond high school graduation—on the job or in college.

The reason for this is simple. Students aren’t graduating from high school and entering the workplace or college with the right blend of skills they need for success.

“In surveys, employers complain that too many entry-level workers lack the skills to do well. Studies of college remediation rates, particularly in community colleges, show that large numbers of recent high school graduates can’t pass placement tests for entry-level, credit-bearing coursework.”

- Education Week

College Today

Nearly half (49 percent) of high school students who took the 2014 ACT tests scored three points or more below the college readiness benchmark for math. Similarly, 42 percent scored three points or more below the benchmark for reading, and 27 percent scored three points or more below the benchmark for English, according to ACT.

Compare those results with the 86 percent of test takers who told ACT that they aspire to post-secondary education. Positively influenced by new approaches to education, these students would have a greater chance of fulfilling their aspirations.

To succeed in college, K-12 students need to learn not only traditional core subjects such as math and English; they also must also master critical thinking, problem solving, creativity, innovation, initiative and self-direction, leadership, adaptability, and 21st century skills that embrace digital media (Fadel and Trilling).
On the whole, the K-12 system does not promote critical thinking, 21st century skills, and more in a meaningful way (Wagner). This is due to a persistent reliance on traditional learning structures.

Traditionally, K-12 education has focused on:

- Getting the right answer and performing well on tests
- Working alone
- Learning within academic disciplines
- Memorizing fixed information
- Complying with hierarchal authority and avoiding risks
- Adhering to external and inflexible time restraints
- Sitting passively in a linear, text-based environment (Wagner)

To better prepare them for higher education, K-12 educators can expose students to forward-looking learning in the form of advanced placement classes, dual enrollment in high school and college, new classroom technologies, and more. And K-12 educators can further prioritize teacher training (Blackboard Institute).

To fully promote the necessary skills, Wagner suggests a shift to:

- Identifying the right questions and solving new problems
- Working in teams, and teaching others
- Learning how to find, communicate, and apply information in a ubiquitous environment
- Using initiative and leadership in “flat” organizations, and taking responsible risks
- Managing time and commitments; prioritizing flexible time segments
- Interacting in a multimedia, graphics-based environment
- Developing the left and right sides of the brain (Wagner)

Employers want incoming workers to possess a core set of soft skills that includes critical thinking, communication, creativity, innovation, problem solving, and collaboration. Employers want new workers to be able to apply these skills to the above-mentioned top jobs. When workers fall short, it contributes to a phenomenon known as the skills gap (Adecco).

A study by Millennial Branding and American Express found that 61 percent of managers believe soft skills are the most important skills. Managers further characterized these as the ability to: prioritize work (noted by 87 percent of employers), maintain a positive attitude (86 percent), and work as part of a team (86 percent).

Forum FYI found that 97 percent of surveyed business leaders agreed that their organizations consider workforce readiness a critical business imperative. Unfortunately, nearly half (42 percent) of recent high school graduates lacked skills needed for success in the workplace. Business leaders reported that the skills most lacking included critical thinking and communication, according to the survey.

To prepare students for the workplace, K-12 and post-secondary educators can employ “learn and earn” models that feature on-the-job training, as well as collaborations between business and education, that align a jobs skills curriculum with an apprenticeship (Hechinger Report). They also can employ online learning.

Online Learning: the Way Forward

Academic institutions can and should increasingly embrace online learning for student, faculty, and staff skills instruction. Making engaging, cloud-based courses available to users on demand can lower the cost of K-12, college, and continuing adult education. Because online learning supplements classroom curricula, it has the power to make teaching more effective.

In a recent study, 66 percent of chief academic leaders at higher learning institutions called online learning critical to their long-term strategies. Nearly three-quarters rated the outcomes of online learning as equal or superior to face-to-face instruction (Allen and Seaman).
Cost-effectiveness

Cost savings, access to just-in-time answers, flexibility, improved learning outcomes, and a boost in learning engagement rank among the key benefits of high-quality online learning.

Cost savings derived from online learning benefit K-12 and post-secondary faculty and staff. They also benefit students. Online courses often reduce or eliminate the need for textbooks and printed materials. In addition, online training can help reduce the need for pricey outside consultants or third party training centers.

Online learning offers students a flexible learning experience that they appreciate (EDUCAUSE Center for Analysis and Research-ECAR, 2013).

Students are clamoring for more, attracted by the flexibility of online learning and the just-in-time answers it provides. An ECAR study found 70 percent of students believe that some online element in a course “produces the most conducive learning environment” (Dahlstrom).

Additional research corroborates those findings. According to a study by the US Department of Education (DOE), “On average, students in online learning conditions performed modestly better than those receiving face-to-face instruction.” Poring through more than 1,000 empirical studies, the DOE found that online learners spent more time on task than students enrolled in face-to-face instruction.

Online learning is growing more popular at the K-12 level as well. This opens up more possibilities for student engagement, improved outcomes, and increased access to information. According to the NAIS 2013-2014 Trendbook Overview, online instruction in the K-12 space offers several benefits, including:

- Access from mobile devices
- Improved learning outcomes
- High levels of engagement resulting from flipped classroom learning
- Integration of new classroom technologies (McGovern and Raley)

Online Learning and Student Readiness

Online courses are ideal for preparing students for the future. Courses on technologies such as computer-aided design (CAD) and 3D animation provide students with career potential. Courses on preparing effective resumes, project management, and interview skills are ideal as they begin their career pursuits. Online courses on topics that include college and career planning are being used as early as middle school to prepare students for the college journey.
In addition, teachers can use online learning to help students prepare for state exams or explore areas of possible career interest.

**Benefit: Student Engagement**

The quality of video-based content is a key driver of college and career prep outcomes. To be effective, the content needs to engage students. Video-based content in particular excels at this, inspiring an almost instant emotional connection with users.

Because 90 percent of information transmitted to the brain is visual, video learning aligns with how humans interact with the world. The brain processes images 60,000 times faster than it processes text (Parkinson). People often seek out visuals, such as video, as a way to access information in their everyday lives. In fact, watching online videos is now a mainstream activity; 78 percent of people watch online videos at least once a week, and 55 percent watch them every day. Visual communication is even more impactful among young people. A massive 93 percent of Generation Z, the generation born after 1995, uses YouTube™ to view, share, and comment on information. Only 8 percent of Generation Z uses the text-based Twitter for the same activities (UANews). This is why YouTube is the second most popular search engine after Google™ for both entertainment and educational content (Brown).

A study that compared posts on a popular daily blog found that those featuring video resulted in higher user engagement. The posts with video had almost 700 more social shares than text-only posts (Distilled).

**Benefit: Maximizing Mobile**

How online learning content is accessed impacts its effectiveness. Schools cannot prepare students for higher learning and the global economy without using technology extensively. And emphasizing technology aligns with how younger generations learn and relate to the world.

Generation Z and the preceding Generation Y are digital natives, meaning that they grew up with technology and expect it to be a standard part of daily life.

Among Generation Z:
- 78 percent of teens in 2013 had a cell phone
- 23 percent of teens had a tablet
- 73 percent had access to a laptop or desktop computer at home
- 75 percent ages 12 to 17 accessed the Internet on cell phones, tablets, and other mobile devices at least occasionally (Madden, Lenhart, Duggan and Cortesi)

Generation Y technology use is similar. While Baby Boomers ranked “work ethic” as the top trait making their generation unique, Generation Y chose “technology use” (Nielsen). Interestingly, the same study found that 83 percent of Generation Y sleeps with a smartphone within arm’s reach.

In addition, “Millennials are staying connected via tablets, as 26 percent of older Millennials and 21 percent of younger Millennials own tablets” (Nielsen).

It’s no surprise that the use of mobile devices in the classroom is on the rise. A University of Florida study found that, of students surveyed who had access to mobile devices, more than half reported that they used them for academic purposes. Tablets were used the most, with 82 percent of mobile device owners using them for academic purposes.

Because of their size and affordability, tablets also are popular among school administrators. Many have started programs to provide them to students. Smartphones were used for academic purposes by 58 percent of small mobile device owners (Chen and deNoyelles).

Mobile devices are proven learning tools in the academic arena. A Project Tomorrow survey found that K-12 teachers see positive benefits from the use of digital tools, such as mobile devices, in the classroom.

In that survey, 60 percent of teachers said they saw an increased motivation among students to learn, 44 percent said students developed problem-solving and critical thinking skills from using digital tools, and 35 percent saw students taking ownership of their own learning (Project Tomorrow).
At higher learning institutions, a majority of surveyed students said that mobile devices enhance the learning experience.

Among the findings:
- 83 percent of college students said tablets transform the way students learn
- 80 percent said tablets make learning more fun
- 68 percent said tablets help students study more efficiently
- 67 percent said tablets will replace textbooks as we know them within a few years
- 62 percent said tablets help students perform better in classes (Pearson)

**Benefit: Enhanced Classroom Teaching**

Online learning has opened up new avenues for educating students. While many schools have maintained technology labs for years, introducing online video content and its associated technologies into the classroom gives teachers a chance to enhance education across the curriculum. It prepares students for standardized entrance exams and helps them build critical career skills that will last a lifetime.

Online learning also boosts teaching productivity. A Project Tomorrow survey showed that teachers surveyed across all grade levels said they were more efficient after introducing online learning into the classroom.

“Almost two-thirds of secondary teachers and 56 percent of elementary teachers say they are better organized as a result of the use of technology in their classroom. When considering how many years of experience a teacher has, 68 percent of teachers with one to three years of experience say that technology has increased their effectiveness by making them more productive.”

- Project Tomorrow

**Benefit: Professional Development**

Teachers and staff can use online learning to further their own educations—closing knowledge gaps and learning new skills to keep educational institutions running smoothly. This becomes especially important as technology grows more common in the classroom.

Teachers need to stay current on the latest software and devices in order to advise their students. This is key, because gaps in teacher knowledge are the most frequently cited human-related barrier to the adoption of online learning technology (IESD).
MEASURING ONLINE LEARNING SUCCESS

College and career readiness are important education policy goals. Measuring the outcomes of online learning initiatives is a best practice that can help drive success.

Whether online learning is used as a supplemental, just-in-time resource for a department, class, or media lab—or as content for a full degree program—the measurement of outcomes should include:

- **Enrollments:** Are learners actually enrolling in the course? How long is it taking them to enroll after assignment? Are they enrolling on their own?
- **Activities:** Have learners started the course? How far along are they?
- **Completions:** What are the completion percentages of each course?
- **Scores:** How well did learners do? Did they actually learn the content? (LiNe Zine)

These measurements are based on the classic Kirkpatrick model of evaluating learning:

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<thead>
<tr>
<th>Levels</th>
<th>Steps</th>
<th>Follow-Up</th>
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<tbody>
<tr>
<td>Level 1</td>
<td>Reaction</td>
<td>How do learners feel?</td>
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<tr>
<td>Level 2</td>
<td>Learning</td>
<td>What did they learn?</td>
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<tr>
<td>Level 3</td>
<td>Behavior</td>
<td>Are they transferring the learning?</td>
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<tr>
<td>Level 4</td>
<td>Results</td>
<td>How much does the training affect the learning outcomes?</td>
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Sources: Aura Interactiva

To measure the effects of online learning, The Educational Institute Policy Center suggests examining:

- **Key content knowledge:** Key terms and terminology, factual information, linking ideas, and organizing concepts
- **Key learning skills and techniques:** Time management, study skills, goal setting, self-awareness, persistence, collaborative learning, student ownership of learning, technology proficiency, and retention of factual information (EIPC)

THE LYNDA.COM SOLUTION

One company helping educators expand student readiness is lynda.com. Its thousands of software, creative, and business skills tutorials can be used as turn-key online training or to supplement classroom instruction, all while promoting positive learning outcomes. Its expert instructors include MBAs and professors from the Wharton School of Business; the University of California, Los Angeles (UCLA); and the University of Southern California (USC).

lynda.com helps academic organizations meet learning and development goals and prepare students for the future. The company notes that 40 percent of all US colleges and universities are subscribers.

Among its many features, lynda.com lets individual users as well as classes, departments, extracurricular clubs, and entire schools create and share course playlists and track learning and development.

The cloud-based lynda.com course library integrates with a wide range of learning management systems (LMS). Mobile access allows teachers to use tutorials during class time or watch preparation courses during downtime. It lets students find just-in-time resources that help with a project. Students also can watch instruction at home.

lynda.com content, reporting features, and administrative functions can be accessed at the company’s website from anywhere with an Internet connection. Instructors or administrators can run reports to measure course views and completions by individuals and institutions, time spent on resources, and more.

HR professionals, department administrators, and teachers do not have to intensely manage lynda.com. This frees valuable time for focus on other objectives. lynda.com serves as a virtual help desk and time saver for students stuck on a function or process within a software program. Links for courses can be sent to help students find the resources they need.
LYNDA.COM AND STUDENT READINESS

At colleges or universities, lynda.com is ideal for small teams, departments including IT and HR, extra-curricular groups, media labs, libraries, or an entire campus. Tutorials on Microsoft® Excel® and IBM® SPSS® prepare college students for life after graduation. Courses that train faculty and staff on software migrations or an LMS help schools keep users current with technology. lynda.com courses on educator tools and business skills are equally beneficial.

CONCLUSION

Educational institutions increasingly face pressure to prepare students for college or the workforce by teaching “soft skills” that include critical thinking, communication, and problem solving.

Online learning is ideal for promoting new skills at K-12 schools and post-secondary institutions. Online learning can help cut costs while providing a wide range of instructional content, whether introduced at a middle school to help with college preparation or at a university to provide job skills training. With its engaging courses and flexible features, lynda.com can help students get the most out of learning.

For more information on lynda.com’s academic solutions, contact sales@lynda.com.

In K-12 schools, lynda.com supplements classroom instruction and supports professional development. Students can use lynda.com in lieu of textbooks; the courses are updated more frequently and can be more cost-effective. lynda.com content supports the flipped classroom model, Common Core, and STEM. Teachers can assign lynda.com to help students get a head start on web design, coding, Adobe® Dreamweaver® and Photoshop®, and more. Courses on technologies such as CAD and 3D animation, on preparing effective resumes, and on interviewing skills are just a few of the many lynda.com offerings.
REFERENCES


