



The Value of Video Communications in Education

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Introduction

Video communications in education offers: 1) access to increased educational resources, 2) flexibility for the learner, 3) valuable global interchange, and 4) equal opportunities for students and teachers regardless of location. The focus of eLearning is to assist with the integration of technology for online, hybrid, and classroom-based courses. Faculty and staff are provided services that include instructional design, training, and support. With the advent of the Internet, education has become more virtual, with students and teachers communicating globally, and degrees conferred without the need to meet the educator or other students. The size of the global eLearning market is estimated at US \$165B and is likely to grow by a CAGR of 5% between 2016 and 2023 to over US \$240B.¹ The success of eLearning is based on content, distribution of content, and eLearning platforms.

Why eLearning Matters

The value of eLearning is being recognized by more organizations, since it is a cost effective way to train large numbers of people. It can produce significant results by not only decreasing training costs, but also improving performance. Students involved in video communications are more motivated and interested in the topic and are reported to have high levels of achievement in critical thinking and problem-solving when compared to students physically in the classroom.² Schools are breaking down the invisible walls of learning and are joining geographically distanced learning communities, allowing students to access educators in ways not possible before.³ eLearning can combine several different delivery methods, including web-based courses, collaboration software, and video conferencing. eLearning can also mix various event-based activities, including face-to-face classrooms, self-paced learning, and live eLearning using video conferencing. eLearning is not about technology, it's about learning, using technology.

The use of video communications has the potential to increase productivity and efficiency by reducing unproductive travel time, allowing more students to complete courses in a shorter period of time, reaching more students in a variety of areas, and lowering costs. By increasing access to courses, and allowing students to participate on their own time, educational institutions can quickly see a financial return on investment. Courses can be developed once and shared with students locally and at a distance, whether from the actual school where the course was created or by reaching others at distant locations who have a need for the information being delivered. Think of students needing a foreign language, but not finding the course they need available locally. Participating at a

¹ Elearningindustry.com, Paul Leavoy, December 23, 2016.

² "Interactive Cable Archives and Videoconferencing", 123HelpMe.com, 05 March 2017.

distance allows these students to complete courses as they need them from any location. There is no longer a need to wait for a course to be available at a given site. Now students have access to a wide variety of courses from any location. This allows

"We liked that on Zoom it was easy to create recurring meetings so students have just one link that works every week and that there are minimal administrative requirements. We also love that it is easy to use for our students, that they click once and they're in the class."

MICHAEL GRIFFIN

Director of Instructional Learning Technology
The University of Arizona

schools to hold classes virtually even if only one student is available at each site. The result is better return on investment since classes can be offered more frequently and student reach is expanded outside the normal classroom environment.

How eLearning supports the goals of education:

- **Reduce training costs**

Producing learning content is time consuming, whether for online or classrooms. With eLearning, each time a course is accessed the return on investment improves, since the production costs are divided by the number of users. There is also the cost of building space, utilities, and teacher salaries to consider. Using one teacher and holding a class using video conferencing results in reaching students in classrooms, at distant sites, and at home for a much lower cost.

³ TechZulu.com, Hitkonferencijablog.com, and Healthcarebusinesstech.com

- **Increase productivity**

Since eLearning is not bound by time or geography, it is easier to control training's impact on production by training people during down times. Given people are now being asked to do more with less, eLearning is a way to provide tools and skills needed to enhance performance.

- **Standardization**

eLearning allows instructors to create a standardized process and consistency in the delivery of content. It can also compress the delivery time by allowing instructors to combine eLearning materials with sessions that are facilitated.

- **Real-time access to information**

In the past, students had to travel to a specific classroom to take courses. With eLearning, courses can be accessed anytime, anywhere. This means students can access content from a PC or mobile device, complete the coursework, and upload their results on their own time.

- **Ongoing Access to Resources**

When classes are taken on site, during a specific time period, students must be in attendance or get notes from other students. If a refresher course is needed, students must sign up for another course. With eLearning, students can access online content and review it as needed. Students learn on their own time at their own pace.

The use of eLearning has improved student learning experiences:

- Graduation rates are higher because students can take courses on their own time from any location.⁴
- Student athletes, who often have

difficulty completing courses due to athletic schedules, are now able to learn on their own time.

- People who commute to attend courses can now get their education online.
- Special needs students have access to courses without the need to travel.

In a recent survey, conducted by TechValidate, educators and administrators in colleges and universities were interviewed. The survey data indicated the following:

- 88% believe video conferencing will allow more people to complete advanced degrees.
- 73% believe video conferencing will reduce student dropout rates.
- 87% plan to increase investment in online collaboration tools in the next 5 years.

The respondents identified the top 3 use cases for video collaboration in education.

1. Collaboration with other education professionals,
2. Expand reach across geographies, and
3. Ability to have a guest lecturer join virtually.

Important Features

When thinking about using eLearning video communications in education, there are important features to consider that make the experience easier and more rewarding for the teacher and the students.

Two-Way Video and Audio

In the past, many eLearning courses have been taught with just audio and a slide deck. Two-way interaction is crucial for increasing engagement between remote and local students and professors, and leveling the playing field between students.

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⁴ Online Education Supports Improved Time to Graduation Rates, Victoria Brown, Florida Atlantic University, 2016.

Video Breakout Rooms

Video breakout rooms allow people to create smaller teams to collaborate with and learn from one another, all within the same meeting or training session. This replicates the common in-person pedagogical practice of breaking the class into small groups.

Video Webinar

Create online events that include registration, reporting, Q&A, and polling. Video webinars are a valuable tool for admissions, alumni engagement, orientation, MOOC (Massive Open Online Courses), and other large-scale events.

Integration

LTI (Learning Tools Interoperability) makes it easy to schedule a meeting with any course activity and invite the right students from your learning management system (LMS). Common LMS systems include Blackboard, Moodle, Canvas, and Desire2Learn. This integration makes it easier to learn regardless of platform used, instead of downloading different software packages to be compatible to what others are using.

Accessibility

Accessibility features enable users with disabilities to schedule, attend, and participate in meetings and webinars. This is a legal requirement for universities and should be a key component of any eLearning tool.

Recording

Record any session for students to watch at a later date, at a time convenient for them.

It is important to find an eLearning tool that uses standard file formats that are easy to edit and share, such as MP4 and M4A formats.

Sending Files

The Grouping Messaging features allow

participants to send text, images/files or audio files to a contact or to a group. Students can use this for team projects and study groups, and professors can make a new group with their students for each course or section.

Simplicity/Ease of Use

Connecting to a video call should be easy. Participants should be able to join from their consumer devices with minimal clicks and no special codes to input. Ideally, it should integrate with existing calendaring systems and single-sign on (SSO) providers to maximize convenience and security.

“Zoom has allowed online learning programs to be more successfully deployed when compared to competing products. The video quality of Zoom allows all remote participants to better see the faces of their classmates while easily integrating content sharing, breakouts, and annotation.”

TIM O'NEIL

IT Director | **Brandeis University**

Students and professors should be able to join from any device – mobile, desktop, or conference room. The mobile experience should be seamless with true mobile screen-sharing, mobile start/join, and mobile scheduling.

Classroom Support

Many classrooms are either not video-enabled, or are equipped with traditional H.323 or SIP conference room systems. It's vital that physical classrooms are brought into virtual environments for true hybrid in-person/virtual learning experiences. The eLearning solution

should support the development of software-based video-enabled classrooms that run affordable off-the-shelf hardware. It should also support H.323/SIP systems so that these investments can continue to be utilized.

Use Case Examples

Distance Learning & Hybrid Learning

Hybrid and distance learning programs and courses strengthen academic values in the following ways:

- Continue to facilitate academic excellence among students, faculty and staff,
- Extend quality educational opportunities to members of the community who are unable to attend traditional, on-campus courses,
- Provides flexible learning environments for working professionals, and
- Integrates technology, time-management, and life-long learning skills into the curriculum.⁵

Fischler School at Nova Southeastern University was sending representatives into the field to visit each student in his/her clinical placement at least three times during his/her program. These representatives include faculty members and alumni of the program located in various areas of the country. As the number of students in the program exceeded 800 the review process became more challenging. Zoom's simple, affordable solution perfectly suited these needs. Instead of wasting time traveling, specialists can work more efficiently by just launching a Zoom meeting on their computer or mobile device to check in with a student.

Guest Lecture

Schools are using video conferencing to access guest speakers from anywhere in the world to share their powerful stories with students who would not have access to these guest lecturers any other way. Topics are brought to life by people

with expertise willing to share their knowledge.

Using video conferencing to connect students to more experts is useful in more ways than just altering the daily routine. Students are more motivated to learn and work on their studies when they can see the actual connection between what they are learning and the real world. Using video conferencing to bring more experts into the classroom can help motivate students by letting them discuss the real-world applications of their work with people who actually use that knowledge.

The Center for Interactive Learning and Collaboration (CILC) started out as a state-based organization connecting schools with other schools, museums and zoos in Indiana via video conferencing. Eventually CILC connected schools across the nation with other national and international cultural and educational organizations. CILC decided that Zoom is the best fit for an environment where seamless learning and presentations can and must take place. What sets Zoom apart from other solutions is that it's a one-click-and-you're-in solution.

Virtual Office Hours

Video conferencing is now being utilized for virtual office hours. The need to be in a physical office no longer exists with the use of technology. Now students can meet with teachers virtually to ask questions, discuss a project, and obtain immediate responses any time. Video conferencing gives everyone the flexibility to schedule the amount of time needed to meet, thus using everyone's time more efficiently. Since video conferencing is now as simple as making a phone call, virtual office hours can be set up instantly allowing teachers and students to meet on a more regular basis or as needed to respond to a question or solve a problem.

Stanford Continuing Studies offers over 100 courses, workshops, and specific events on topics ranging from liberal arts and sciences, to creative writing,

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⁵ Student Guide to Hybrid and Distance Learning, South College, Knoxville, TN, 2011

and professional and personal development. The courses are taught to over 13,000 students each year, with 8% of these students taking online courses. Malena Wantrous, Lead Instructor, uses Zoom for virtual office hours. The “door is open” two hours a week. She appreciates that Zoom is unobtrusive; she can go about her work and forget it’s on until a student enters the Zoom session.

Research Collaboration Among Institutions

Research collaboration is people working together to solve a problem, create a product, or derive meaning from a body of material. With the advent of video communications technologies, research collaboration among institutions is now becoming a reality. Geographically dispersed research and education groups are relying on video communications to achieve their goals of collaboration between educators.

Though much has changed in higher education, networking and collaboration are more important than ever for bringing people and ideas together. Collaboration is also important on the global stage. Globalization is a reality and collaboration amongst international institutions is a way to learn from other cultures and researchers. Research is being conducted across universities, time zones and countries.

Mount Holyoke developed a program to connect teachers to the college without needing to put these teacher-students through the expense of travel and accommodations. They tore down the barriers that forced teachers to restrict themselves in the four walls of the classroom. They use Zoom to connect teachers across the nation using a solution that allowed them to collaborate and really meet in a way that was similar to in-person meetings. With Zoom they are able to have teachers around the world use the software to interact in real time with Mount Holyoke classrooms.

Summary

Video communications allow educational institutions to expand their impact across geographies to reach more students and offer new learning opportunities from guest lecturers, to research among institutions, to reaching students off campus. Regardless of whether it is known as eLearning or distance learning, the use of video communications increases productivity, reduces training costs, allows access to subject matter experts (regardless of location), and offers students real-time, immediate access to classes and course materials.

The combination of multimedia and instructional design, coupled with practice activities and feedback, results in a learning environment that helps students retain course content. Learners want control of their time and eLearning gives them the opportunity to learn from anywhere at any time.

To remain competitive and increase revenue, educational institutions need to use video communications to reach existing and new students, provide access to outside experts, collaborate with other institutions, and virtually communicate with students, faculty and staff.

About S. Ann Earon, Ph.D.

S. Ann Earon has been a researcher and consultant in conferencing and collaborative communications for 35 years. She holds a Masters in instructional technology and educational administration from Northeastern University, and holds an interdisciplinary Ph.D. from Boston College with majors in business, speech & communications, and education. Dr. Earon is the Founding Chairperson of IMCCA, the non-profit industry association for conferencing and collaborative communications. She can be reached at AnnEaron@aol.com.