



■ **GETTING
STARTED**
IN E-LEARNING

Synchronous e-Learning

By Patti Shank, Ph.D., C.P.T.

The eLearning Guild



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Table of Contents	
Getting Started: Synchronous e-Learning	3
Executive Summary	3
Introduction	5
Survey Methodology and Demographics	7
Synchronous versus Asynchronous e-Learning	8
Learning Modalities Used by Guild Members	8
Attributes of Synchronous versus Asynchronous Learning	11
Typical Media and Technologies Used in Synchronous and Asynchronous e-Learning	13
Virtual Classroom Applications	15
Importance and Effectiveness of Synchronous e-Learning	15
Features	17
Types of Content	21
Other Uses	21
Costs and Hosting	22
Session Length	24
Selecting Virtual Classroom Applications	25
Applications for Those who are Getting Started	30
Skills for Successful Synchronous e-Learning	31
Tips for Successful Synchronous e-Learning	33
Know Thy Application	34
Present Well	34
Final Thoughts	37
Important Takeaways	38

References and Resources	40
From The eLearning Guild	40
Other Resources:	41
Virtual classroom applications mentioned in this report (listed alphabetically):	42
Glossary	43
About the Author	45
Appendix 1: Virtual Classroom Application Comparison Charts	46
Appendix 2: Synchronous Analysis Template	48

■ Getting Started: Synchronous e-Learning

People who need to get e-Learning off the ground in their organizations are often overwhelmed. There are so many terms and concepts to understand, and so many options to consider — and it's hard to consider the options when you are overwhelmed with new concepts and choices! Vendors can be helpful, but it's hard to scrutinize vendors' products and services when you don't understand the terms, products, and services. And it's easy to make mistakes under these conditions. Help!

The *eLearning Guild* Getting Started reports will help you understand the concepts common to e-Learning design, development, and delivery. We base each report on *eLearning Guild* member data and the experience and insights of many people and organizations, including this report's author. *Guild* members with more experience have learned important lessons along the way that will be helpful to you as you get started. Each report will help you make sense of the options, and evaluate both your and your organization's needs.

■ Executive Summary

Learning flexibility has become very important for training people in today's organizations because of an ongoing need for skill updates and skill refinement. Synchronous e-Learning, which involves learners attending live learning events at the same time from different places, is one of the ways of providing learning flexibility. Although synchronous e-Learning isn't as flexible, perhaps, as asynchronous e-Learning is, if well-designed it can be *more compelling* to learners for a variety of reasons.

Synchronous e-Learning is used by approximately 66% of Guild members who answered the survey (n=3,327) and is well regarded by respondents. Almost 100% of respondents agreed or strongly agreed that synchronous tools and the opportunities they afford are essential to their organization. And greater than 80% agreed or strongly agreed that *management* believes these approaches are essential to the organization. Almost 90% agreed or strongly agreed that synchronous sessions can be as effective as face-to-face classroom sessions.

Respondent's opinions mirror what the learning research says — well designed and facilitated instruction provides the same outcomes whether delivered using one medium or another, at a distance or in-person, via synchronous methods or asynchronous.

Although synchronous e-Learning can use a variety of technologies, such as chat, instant messaging, audio conference calls, and virtual classroom sessions, the virtual classroom sessions are what is most commonly referred to as synchronous e-Learning. The most frequent content types Guild members deliver through virtual classroom applica-

tions are: desktop/Web applications, product knowledge, technical skills, and business skills training. Their synchronous sessions typically run from 30 minutes to two hours in length.

The top-three virtual classroom applications used by respondents are WebEx Training Center (34.5%), Adobe Connect (27.6%), and Microsoft Live Meeting (22%). Most say that their virtual classroom applications are easy to use.

There are numerous skills and tasks involved in producing good virtual classroom sessions. Many of these skills belong to a “Producer” role, whose job it is to ensure that all the elements — application, content, media, presenter, and learners — come together for a valuable session. It is difficult for the presenter to fulfill this role, so it’s wise to plan for this role if your organization will be doing synchronous sessions.

Virtual classroom applications are complex technologies and require familiarity and practice by all involved in order to deliver high quality sessions. It’s also important to provide compelling content, involve participants, and have contingency plans for working around technical and other problems.

■ Introduction

Learning *flexibility* has become critical in today's organizations. Knowledge and skills in the information age frequently need tweaking and updating. With the need for rapid dissemination of information and instruction so critical to most organizations, traditional classroom and in-person meetings for delivering information and instruction are likely to be too slow. Plus, many organizations have a geographically dispersed workforce and more workers than ever work from a variety of work and mobile locations.

Flexible learning gets instruction, information, and support to learners when and where they need it. What the various e-Learning methods *can* provide that is so compelling is flexibility. Various technologies can be used to help organizations deliver what learners need, when and where they need it. These technologies have added more ways to learn and communicate. And they have become vital to the needs of today's organizations.

Mobile learning allows learners to learn in the field, in alternate work locations, while waiting for appointments, and so on. The types of technologies typically used for mobile learning include e-mail, mobile Websites, and mobile learning applications.¹

Self-paced (asynchronous) e-Learning allows learners to use information or instruction whenever and wherever time and access permits. The types of technologies typically used for asynchronous e-Learning include self-paced learning modules, e-mail, and discussion boards.² The ability to access materials and support without having to be in the *same* place and *same* time as an instructor or other learners can make learning and support very flexible. In fact, it is just this type of flexibility, in the form of online higher education courses and degrees, which makes it possible for many people to get the degrees and credentials they need while attending to family, work, and other commitments.

Asynchronous e-Learning, especially for training purposes, typically connotes e-Learning without an instructor. Instead, the content (such as slides, text, images, and video) and the learning activities (such as games, multiple choice questions, and simulations) are used by each learner on their own. In higher education, asynchronous e-Learning usually does have an instructor, but the activities and communications also involve each learner working whenever they can and wherever they are.

¹ See the *Getting Started in e-Learning: Mobile Learning Research* for more information.

² See the *Getting Started in e-Learning: Asynchronous e-Learning Research Report* for more information.

Another type of e-Learning occurs in real time. This type is “live” during a specific time — each party “attends” and communicates during this period. The types of technologies typically used for these purposes include virtual classroom applications (also called Webinar applications), chat, instant messaging, and audio conferencing. Phone lines or Web-based audio (also called Voice over IP or VoIP) are often used as well. Many of the more full-featured virtual classroom applications include a host of synchronous tools, such as chat and audio conferencing. This type of information or instruction and communication falls into the category of *synchronous e-Learning* because the involved parties are working together *at the same time*.

Synchronous e-Learning typically connotes e-Learning *with* an instructor or presenter. Typically, the instructor or presenter shows slides and discusses the topic at hand. Participants can hear the presentation and see the slides. Oftentimes, participants are involved in the session by asking questions (via audio or a chat tool) and answering poll questions. Additional activities such as whiteboarding or use of breakout rooms can be added for more interaction.³

If you are thinking that asynchronous e-Learning affords more flexibility, you’re right. But flexibility isn’t the only important thing to consider when providing learning opportunities. Asynchronous e-Learning can feel isolating and frustrating, especially for complex topics. In asynchronous e-Learning, the content itself has the burden of conveying the entire message and providing support for learning — and that is not always so easy to do. Because synchronous e-Learning *can* provide a level of support and personal interaction that is missing in some asynchronous learning, it is often a good choice, especially when these advantages are most needed.

Each type of e-Learning has its place, and most organizations quickly come to realize that employing multiple types of e-Learning makes a lot of sense.

To recap, synchronous e-Learning involves learners attending a live learning event at the same time from different places. Asynchronous e-Learning involves learners attending from times and places of their choosing (Figure 1).⁴

³ Synchronous sessions can be very interactive and creative. What is possible depends on the tool’s functionalities and the creativity of the presenter and support team.

⁴ Mobile learning, like e-Learning on a PC, can be synchronous or asynchronous. See the Getting Started in e-Learning: Mobile Learning report for more information.

Figure 1:
Time and place for
synchronous and
asynchronous
e-Learning¹
(source: Patti
Shank).

Synchronous
Same Time Different Place



Asynchronous
Different Time Different Place



I may be using terms in this report that may be unfamiliar to you. In the back of this report is a glossary of terms. These are *my* definitions and others may define these terms somewhat differently. Many of these terms are adapted from definitions (I wrote) in *Essential Articulate Studio '09* (Jones and Bartlett Publishers, June 2009).

This report discusses synchronous e-Learning. It describes differences between synchronous and asynchronous approaches to e-Learning that you should consider when deciding which approach to use (or determining how to combine these approaches), and information about virtual classroom applications and Guild members' usage of these tools, including which ones they use most, and which are easiest to learn and use. It explains the skills needed to design and implement successful virtual classroom sessions and provides tips on getting started with synchronous e-Learning.

■ Survey Methodology and Demographics

When reading *Guild* Getting Started reports, be sure to consider similarities and dissimilarities between your situation and the members who responded to survey questions. For example, organizations and institutions that are just getting started are likely to “do” e-Learning differently than those that have been involved in e-Learning for more than three years. People who primarily develop multimedia may have different opinions about authoring tools than those who primarily design learning content but who are also starting to use tools to build the content as well. So, it's a good idea to consider how your company or institution is similar to or different from the people who answered the survey.

Guild demographics (see: <http://www.elearningguild.com/content.cfm?selection=doc.65>) show that if you are just getting started with e-Learning, you are not alone. Slightly more than 25% of *Guild* members have less than two years of

experience. And greater than 40% of *Guild* members have more than five years of experience. That means you can gain from the knowledge and the lessons they learned along the way.

Guild members have diverse jobs that involve a wide variety of knowledge and skills. Instructional designers make up almost 20% of *Guild* members. These people typically design learning content using a systematic process to analyze learning needs, build learning materials, and determine whether they are effective. But the third largest category of *Guild* member work focus is “Do a lot or a little of everything.” If you are new to e-Learning, you can take comfort in the fact that although there is a lot of knowledge and skill that goes into good e-Learning, many companies and institutions start small, with one, or just a few people, who do most or all of it. To be sure, some of these people work with outside vendors, but some really do do it all.

E-Learning is being used in companies and institutions of all sizes, and *Guild* demographic data reflects this fact. Years ago, it was assumed that e-Learning made the most sense for bigger organizations and larger numbers of learners, but that has changed. As e-Learning has become more and more mainstream, organizations of varying sizes and numbers of learners have begun to use it.

The number of people (n) for the tools survey upon which we based this report is 3,327. It includes data from the mobile survey during the period from 2/28/2009 to 2/10/2010.

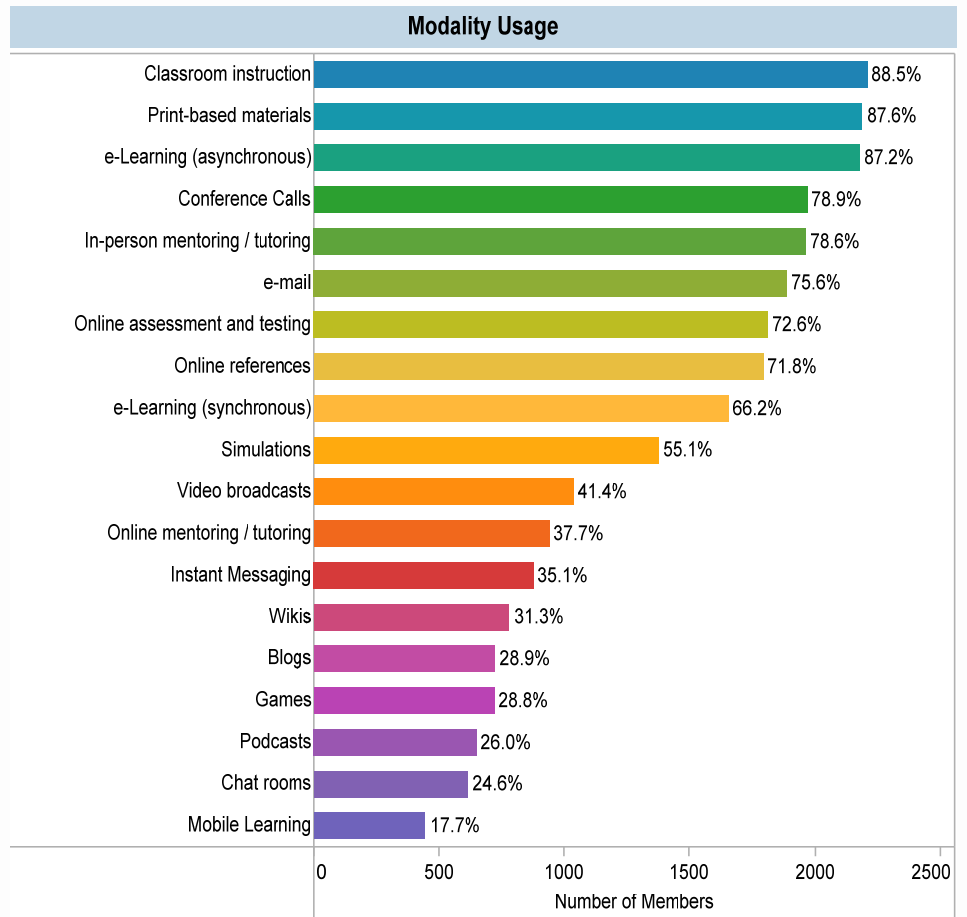
■ Synchronous versus Asynchronous e-Learning

In this section, I’ll discuss which e-Learning modalities (learning technologies) are asynchronous and which are synchronous. Then I’ll discuss how the attributes of synchronous and asynchronous e-Learning are different, and which attributes make synchronous e-Learning better in some cases and asynchronous e-Learning better in others. I’ll then list the typical media and technologies used in asynchronous and synchronous e-Learning.

Learning Modalities Used by Guild Members

Figure 2 shows the distribution of learning modalities that *Guild* members (who answered the modalities survey questions) use. This data gives you an idea of the general importance of both synchronous and asynchronous modalities to Guild members.

Figure 2:
Learning modalities used by Guild members.



Source: The eLearning Guild Research

If you zero in on modalities used by more than 50% of Guild members (Table 1 on Page 10), you can see that both asynchronous and synchronous modalities are widely used.

Table 1:
Modalities used by
greater than 50%
of Guild members

<i>Asynchronous</i>	<i>Print-based materials</i>	87.6%
	<i>E-Learning (asynchronous)</i>	87.2%
	<i>E-mail</i>	75.6%
	<i>Online assessment and testing</i>	72.6%
	<i>Online references</i>	71.8%
	<i>Simulations</i>	55.1%
<i>Synchronous</i>	<i>Classroom instruction</i>	88.5%
	<i>Conference calls</i>	78.9%
	<i>In-person mentoring or tutoring</i>	78.6%
	<i>E-Learning (synchronous)</i>	66.2%

Based on the percentages in Table 1, you can see that *most* respondents use *both* synchronous and asynchronous modalities. This certainly makes sense, because both asynchronous and synchronous modalities have attributes that make them better in some instructional circumstances than others. I'll be discussing those attributes later in the next section.

You can also see that the more traditional modalities, classroom instruction and print materials, are used by almost all respondents. Despite the hype about e-Learning replacing classroom learning, classroom learning is still alive and well and print is still important.

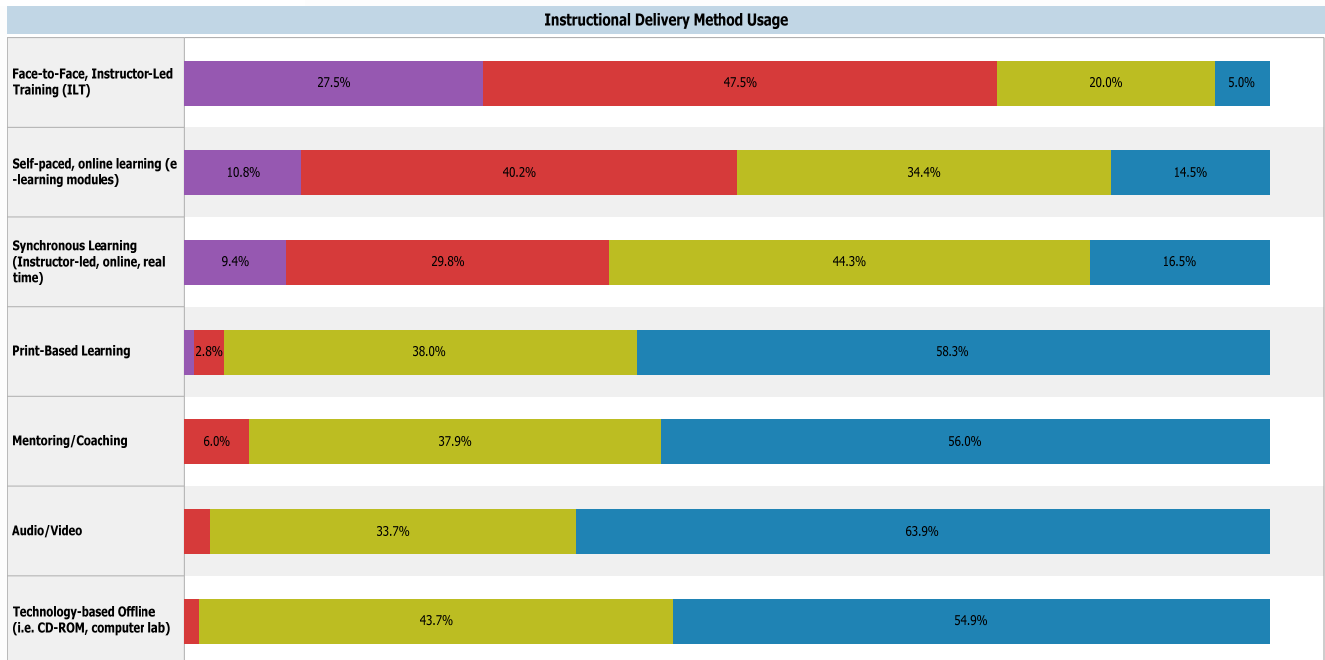
If you are just getting started with e-Learning, it's likely that you will start with one or two modalities, but there's a very good chance that you will expand the modalities you use over time⁵.

Figure 3 on the next page provides another way to view the split of training methods used by Guild members.

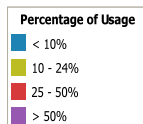
⁵ To help you analyze which modalities make sense for your learning needs as you are getting started with e-Learning, review Table 1: Typical benefits and challenges of learning modalities in the *Getting Started – Technologies, Tools, and Media for e-Learning, An Overview Research Report*.

Of the Guild members who answered the survey question, for 16.5% of respondents synchronous e-Learning makes up less than 10% of their total mix of instructional delivery methods. For 44.3% of respondents synchronous e-Learning makes up 10-24% of their total mix of instructional delivery methods. For 29.8% of respondents it makes up 25-50% of their total mix of instructional delivery methods, and for 9.4% of respondents it is greater than 50% of their total mix of instructional delivery methods. So the largest percentage, slightly less than half, uses synchronous e-Learning as 10-24% of their instructional delivery methods.

Figure 3:
Instructional delivery methods used by Guild members.



Source: The eLearning Guild Research



Attributes of Synchronous vs. Asynchronous Learning

Table 2 on Page 12 shows some of the differences between asynchronous (self-paced) e-Learning and synchronous (live) e-Learning. (NOTE: when we archive synchronous events for later viewing, they become asynchronous because you can view them at *any* time. The attributes listed here are for *typical* uses of each type of e-Learning.

Table 2:
Typical attributes of asynchronous and synchronous e-Learning

Attributes	Asynchronous e-Learning (Self-Paced)	Synchronous e-Learning (Live)
Time and place	Any time and place (with access). Can begin any-time.	Specified time but any place (with access). Need to wait for the event date and time.
Costs	Costs for creating materials, and learners' time away from work. Costs for tools and technologies (for example, server space and authoring tools).	Costs for creating materials and learners' time away from work. Costs for tools and technologies (such as a virtual classroom application).
Benefits	Allows for self-pacing and ability to practice and review as needed. May feel less intimidating (than synchronous) when learning about difficult or dangerous situations.	Learner support and feedback can be immediate (with fewer participants). Social aspects can improve individual learning and increase motivation. Time set aside for instruction improves learner focus.
Challenges	Any time/any place often triggers procrastination and non-completion. Lack of social interaction, support, guidance, and help often reduces motivation and increases frustration.	With a larger number of participants, immediate support, feedback, and social interaction are less likely. Specific dates and times may mean lack of availability when needed.
Best uses	When information or instruction needs to be available as needed, when strict content standardization is imperative (for example, for compliance training), and when having access to rapidly updated materials is valuable.	Best used when motivation is important, when interaction with the presenter and possibly other learners is desirable, or in other situations where being live is valuable.

Because of its attributes, synchronous e-Learning works especially well:

- To build motivation and excitement
- When It makes sense to set aside a specific time to learn
- When live support is needed
- When there is value in learning from others
- To process learners' own situations
- For "connecting" with people
- When a quick response is needed
- To allow geographically dispersed learners to interact

Because they tend to have different benefits and challenges, we should ideally choose the type of e-Learning based on which type will best support learners. In many cases, a blended approach is best because it maximizes the benefits and mitigates the challenges of both types.

Appendix 2 on Page 48 provides a template to analyze whether a synchronous approach makes sense for a given information or instructional project.

Typical Media and Technologies Used in Synchronous and Asynchronous e-Learning

Synchronous and asynchronous e-Learning tend to use different elements although there is overlap, as you can see in Table 3 on the next page.

Table 3:
Elements used in asynchronous and synchronous e-Learning.

Elements	Asynchronous	Synchronous
Content (read, listen, view)	screens that include: text images audio video animations	slides that include: text images video animations
Content interactions ⁶	screens that include: questions rollovers branching ⁷ games scenario simulation	
Social interactions ⁸	pages that include: discussion forums blogs wikis	windows with: polls surveys chat whiteboard breakout rooms

⁶ Elements from which learners can get feedback or additional information.

⁷ Branching means that the learner takes a specific path through the pages based on his or her selection (topic, answer, etc.)

⁸ Elements to which learners contribute. Social interactions are *not* common in asynchronous training courses but many (Including me) think they should be used more often.

The difference between content and interactions isn't always clear. In general, content is what the learner views. Content interactions are elements that the learner manipulates on the screen. Typically, this includes questions that they answer (and the resulting feedback), elements that they use their mouse to roll over or click to see additional information, choices they make that affect what new elements they see, and so on. Games, scenarios, and simulations typically are more complex types of content interactions. Content interactions are commonly used inside screens in asynchronous e-Learning.

Social interactions are what (multiple) learners do that produce additional online content. So when a group of learners answers a poll question, they are individually interacting with the poll but the result is additional content (the poll results). On a whiteboard, for example, learners may mark on the map to indicate their hometown. The result is a map that shows all the places that the learners live. Social interaction use within synchronous e-Learning applications is common. Social interactions using discussion forums, blogs, and wikis *can* happen in asynchronous e-Learning, but they are not the norm.⁹ And in case it isn't obvious, e-Learning can certainly contain both synchronous and asynchronous elements!

■ Virtual Classroom Applications

Although synchronous e-Learning can use of a variety of technologies, such as chat, instant messaging, audio conference calls, and virtual classroom sessions, for the rest of this report, I'll be concentrating on the use of virtual classroom applications, since this technology is what is most commonly referred to as synchronous e-Learning.¹⁰ In this section, I'll discuss the importance and effectiveness of synchronous e-Learning, the features that these applications may include, costs and hosting for these applications, and typical session length.

Importance and Effectiveness of Synchronous e-Learning

We saw in Figure 2 that more than 65% of the respondents to the synchronous survey said that they use synchronous e-Learning. Clearly, *Guild* members think that synchronous e-Learning is important part of their learning and e-Learning strategies.

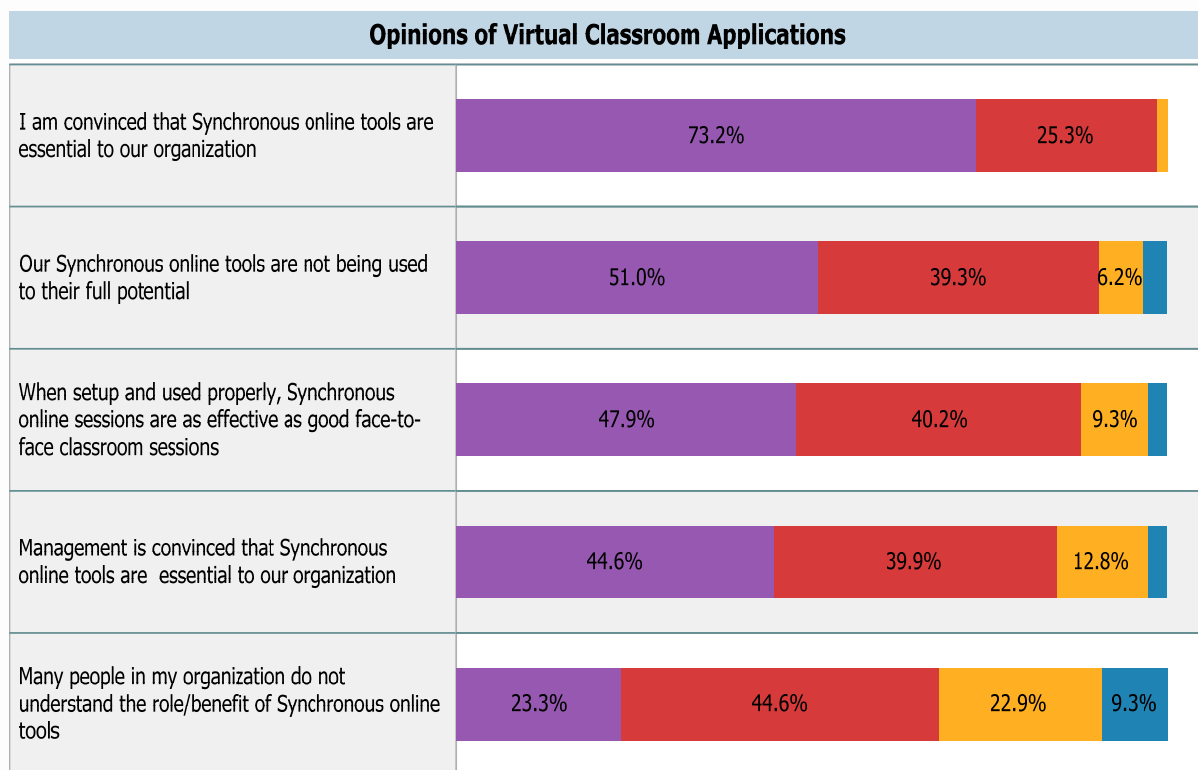
⁹ Social interactions *are* the norm in higher education asynchronous e-Learning, however. Learners often use discussion forums to discuss course topics and collaborative writing tools and they may use wikis as well, along with other social interaction tools.

¹⁰ There are numerous names attributed to virtual classroom-like sessions. Here's an interesting article on making distinctions between Web meetings (small), Webinars (typically one-way), and virtual classroom (learning) sessions: <http://onlignment.com/2009/08/web-meetings-webinars-and-virtual-classrooms-compared>.

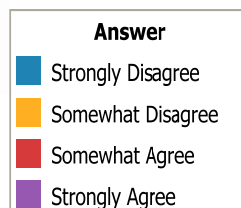
Figure 4:
Guild member opinions of synchronous training.

Figure 4 shows opinions of *Guild* members who answered the survey towards synchronous learning.

Almost 100% of respondents agreed or strongly agreed that synchronous tools and the opportunities they afford are essential to their organization. And almost 85% agreed or strongly agreed that *management* believes these approaches are essential to the organization. Almost 90% agreed or strongly agreed that synchronous sessions can be as effective as face-to-face classroom sessions.¹¹ Clearly, synchronous e-Learning is an *important* and *accepted* way to provide information and instruction.



Source: The eLearning Guild Research



It's important to realize learning research shows no difference in outcomes when learning using one medium versus another, distance versus in-person, and synchronous versus asynchronous. If you are concerned

¹¹ Note also that most respondents feel that they could do a better job of using these tools.

about whether your learners can learn this way, the research on the efficacy of various methods for teaching and learning should be comforting.¹² But this doesn't mean that *nothing* makes a difference. What *does* make a difference is the instructional approach (use of examples, practice, etc.) and support for learning.

Features

Virtual classroom applications employ a variety of presentation and interaction features for teaching and learning. Here's a list of typical content, communication, and management features that may be available within virtual classroom applications (feature availability varies by application).

Content Tools

- **Slides:** Showing PowerPoint slides.
- **Media:** Showing audio or video content.
- **Whiteboard:** Allowing the presenter and/or learners to brainstorm or draw in real time.
- **Application sharing:** Sharing the presenter's desktop to show demos or other content.
- **Synchronized browsing:** Navigating the Web in a guided manner.

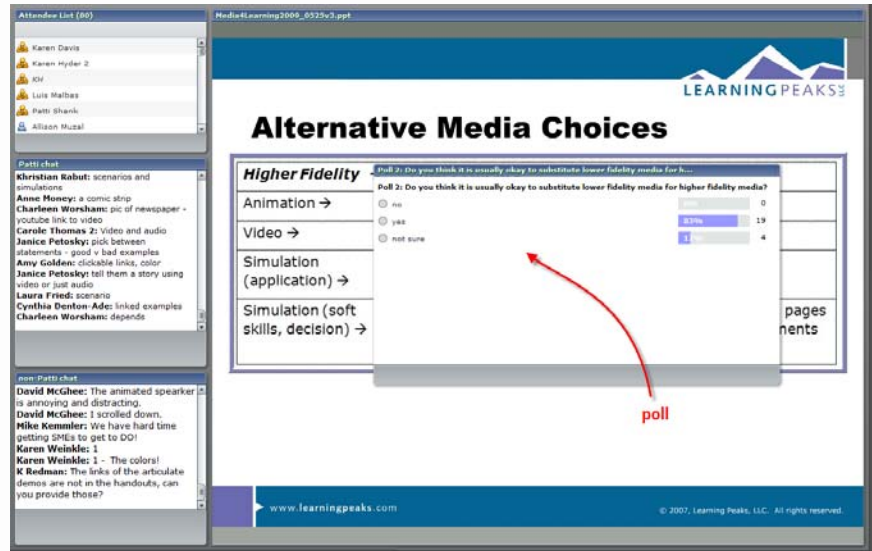
Communication Tools

- **Telephony and VoIP:** Providing spoken audio via conference call or over the network connection. Learners may also get access to these channels for asking or answering questions.
- **Video communication:** Facilitating two-way video so learners and presenters can see each other.
- **Annotation and drawing tools:** Allowing the presenter and/or learners to mark on slides or the whiteboard.
- **Chat:** Allowing learners and presenter to engage in text conversation. Chat functionality may be set to allow everyone to chat or to restrict it to certain people.
- **Emoticons and feedback icons:** Allowing learners to provide yes/no or positive/negative feedback to the presenter.

¹² See the References and Resources section for three specific research items listed under Bernard, R. M. and Russell, T.L.

Figure 5:
 Guild synchronous
 Online Forum session
 facilitated by Patti
 Shank, using Adobe
 Connect, with polling.

- **Polling:** Gathering audience opinions or answers (Figure 5).



- **Virtual breakout rooms:** Allowing learners to discuss content or collaborate in a separate virtual space.

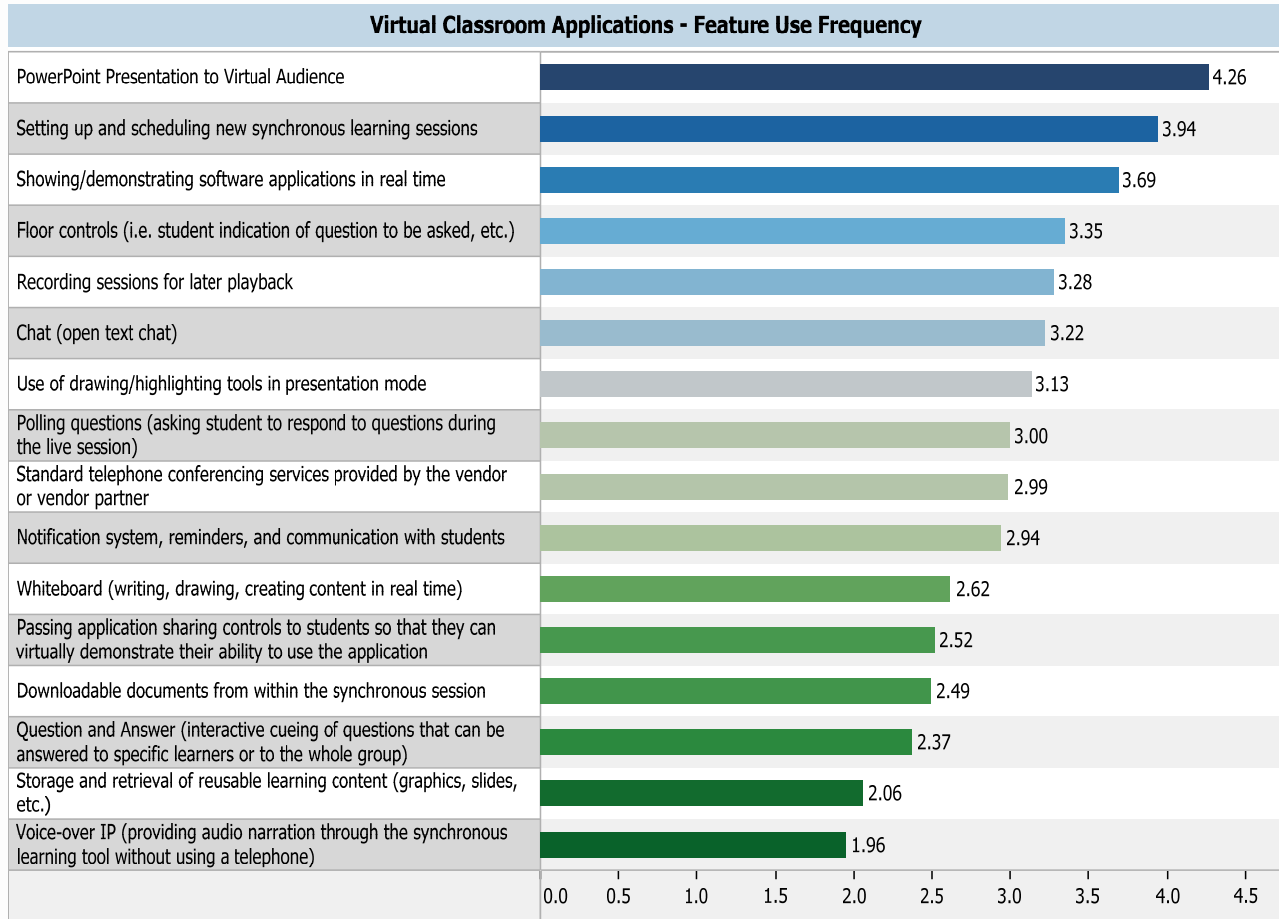
Management Tools:

- **Session registration and reporting:** Facilitating registration and confirmations, track registrants and attendees, and send information to participants.
- **Remote access/control:** Taking control of a learner's computer to help them with technical or other issues.
- **Access:** Providing access to certain functionalities.
- **Record and playback:** Recording the session for later viewing.

Figure 6 on page 19 shows the frequency with which respondents use virtual classroom features.

Figure 6:
Guild member frequency of use of virtual classroom application features, on a scale of 0-5.

As you might expect, the feature used with the most frequency is showing slides. Demonstrating software applications, answering learner questions, recording sessions for viewing later, chatting, and using drawing tools and polling questions are used with greater frequency than whiteboarding, allowing learners to do application sharing, and other features. A chart comparing the availability of the most commonly used features in some of the most commonly used virtual classroom applications is available in Appendix 1 on Page 46.



Source: The eLearning Guild Research

Figure 7 on page 20 shows a screenshot from a Guild Online Forums session where a variety of tools is being used. Figure 8 shows a screenshot from a Guild Thought Leaders session where only slides and narration are being used.

Figure 7:
Guild synchronous
Online Forum session
facilitated by Patti
Shank, using Adobe
Connect.

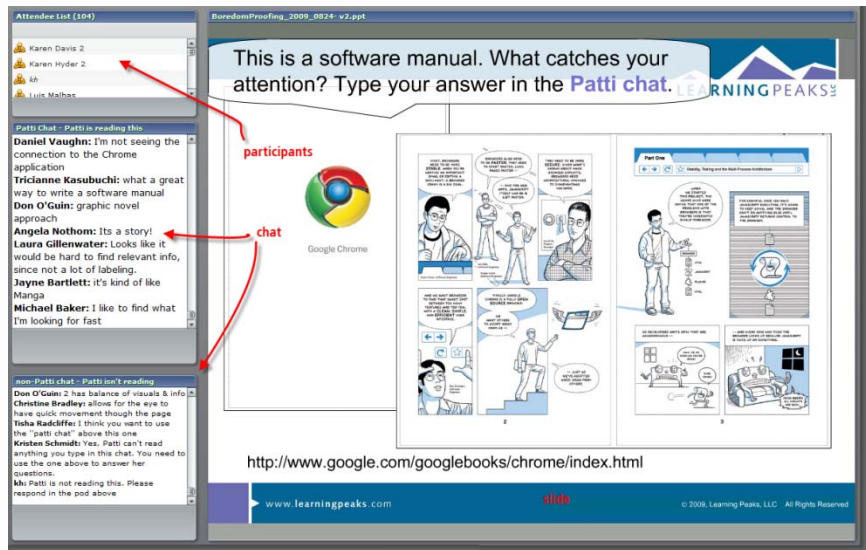
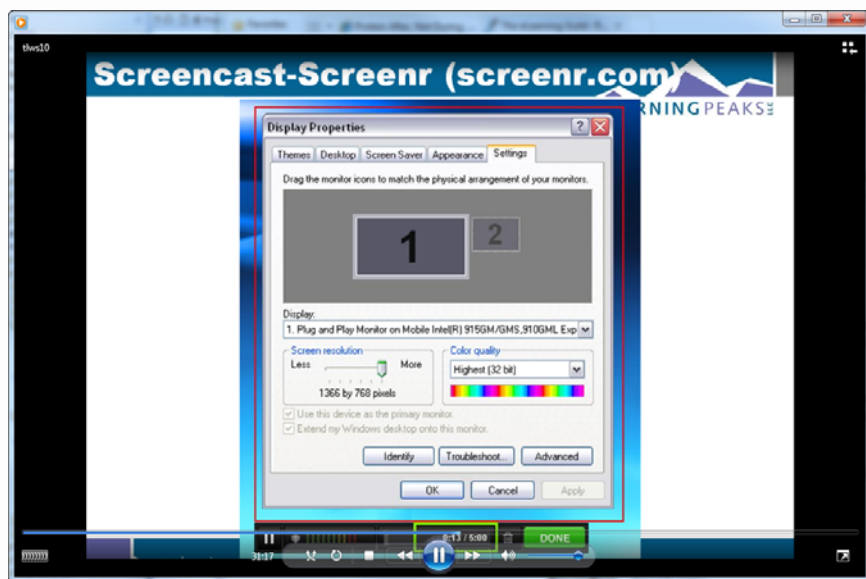


Figure 8:
Guild synchronous
Thought Leaders session
facilitated by Patti Shank,
using Citrix GoToWebinar,
showing slides only.



Which of these tools do you need? In general, the more tools available for engaging and involving learners, the better. (We'll discuss the need to engage learners later in the report.) Also consider the type of content you wish to deliver using synchronous e-Learning. If you are delivering software training, the ability to do application sharing will be important. If you are delivering management development training, tools for collaboration and the ability to show media may be important. And don't forget that you may expand your use of synchronous e-Learning as you get more familiar with it.

Types of Content

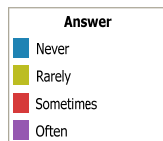
Guild members use virtual classroom applications to deliver myriad types of content, as Figure 9 shows.

The most frequent content types that Guild members deliver through virtual classroom applications include desktop/Web applications, product knowledge, technical skills, and business skills training. The least frequent content types that Guild members deliver through virtual classroom applications include regulatory compliance, new hire orientation, and HR topics.

Figure 9:
Guild member content delivered through virtual classroom applications.



Source: The eLearning Guild Research



Other Uses

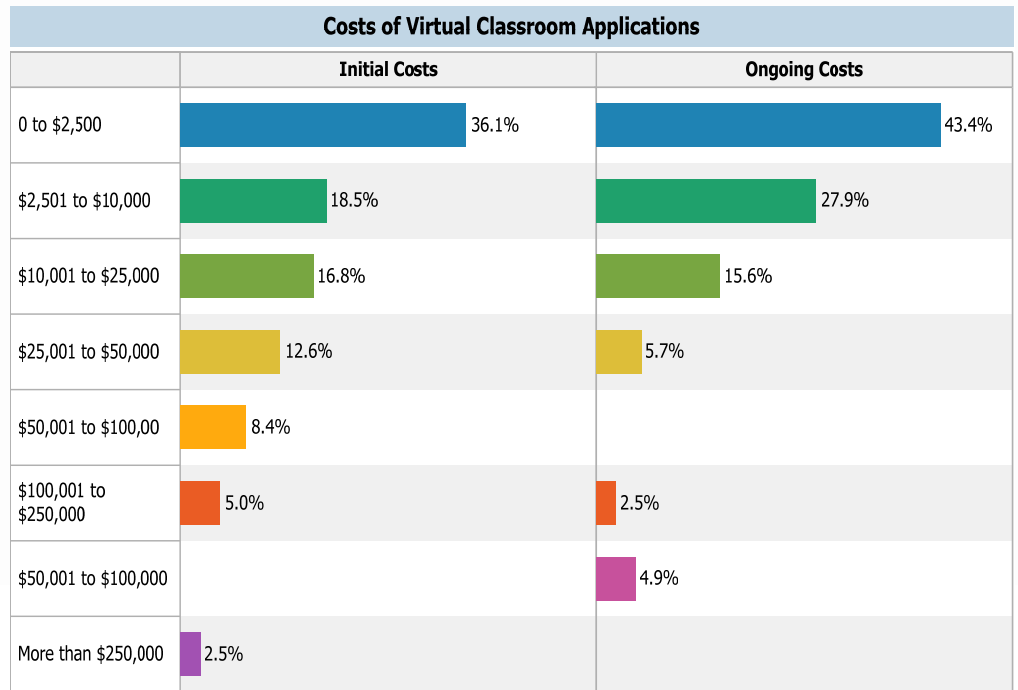
Virtual classroom applications are used for interactive presentations and training, of course. What may be less obvious is that people also use virtual classroom applications for

- Technical support
- Panel discussions and interviews
- Q&A sessions
- Virtual team building
- Kick-off or follow-up to asynchronous e-Learning or learning

Costs and Hosting

The cost for virtual classroom applications varies greatly. Figure 10 shows both the initial costs and the average recurring yearly costs paid by Guild members who answered the survey questions.

Figure 10:
Initial and ongoing costs of virtual classroom applications.



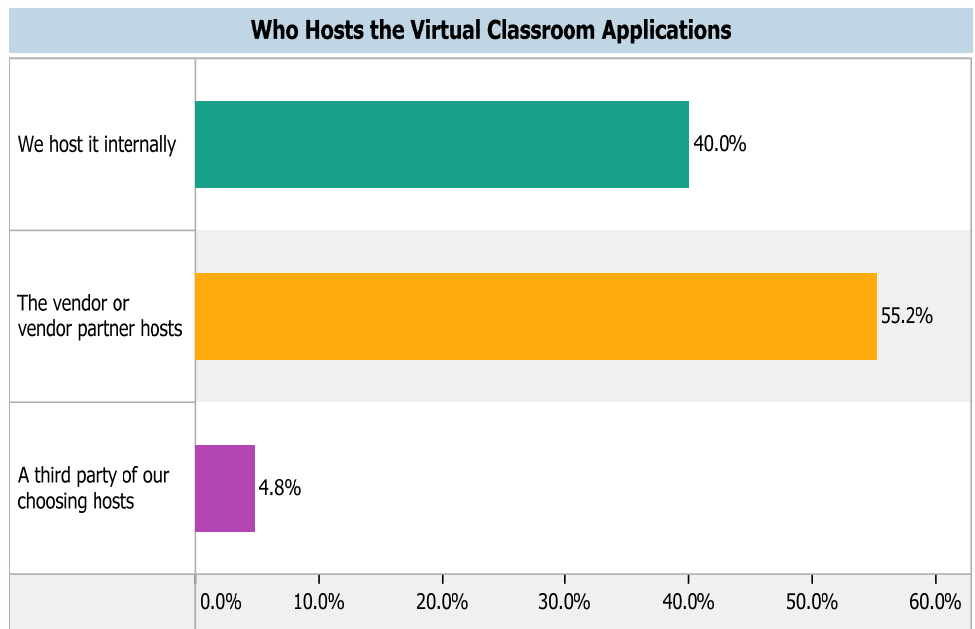
Source: The eLearning Guild Research

Some companies may choose to use free or very inexpensive virtual classroom applications such as DimDim (<http://www.dimdim.com>) or WiZiQ (http://www.wiziq.com/virtual_classroom.aspx), especially when getting started. In addition to the tools just mentioned, some of the

more expensive and full-featured virtual classroom applications also offer more limited systems that can be used at low cost or for free. These systems generally limit participation, so they are useful for smaller online sessions. You can also use them to help you determine what functionalities you most need. For example, Adobe Connect is a very full-featured virtual classroom application but Adobe ConnectNow is available for small sessions¹³.

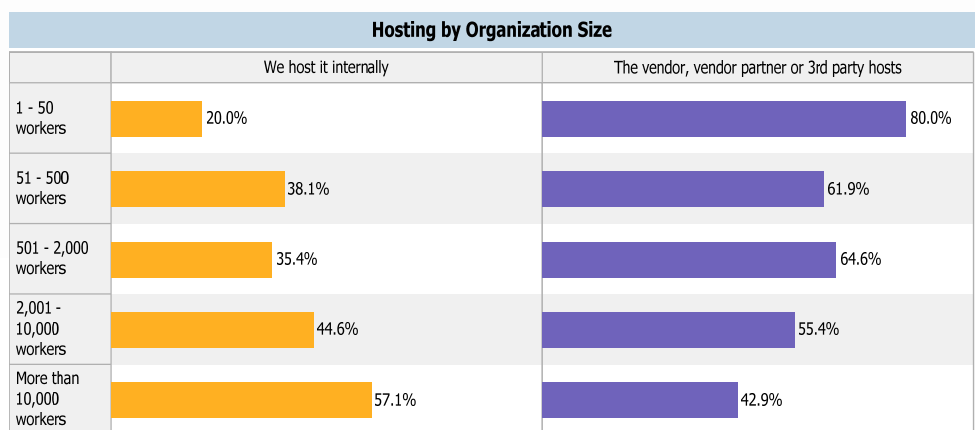
Figure 11 shows who hosts the synchronous applications Guild members use for synchronous e-Learning. Figure 12 shows the same information broken down by organization size.

Figure 11:
Hosting of virtual classroom application.



Source: The eLearning Guild Research

Figure 12:
Hosting of virtual classroom application, by organization size.



Source: The eLearning Guild Research

¹³ See: <http://www.adobe.com/products/acrobatconnectpro/compare/>

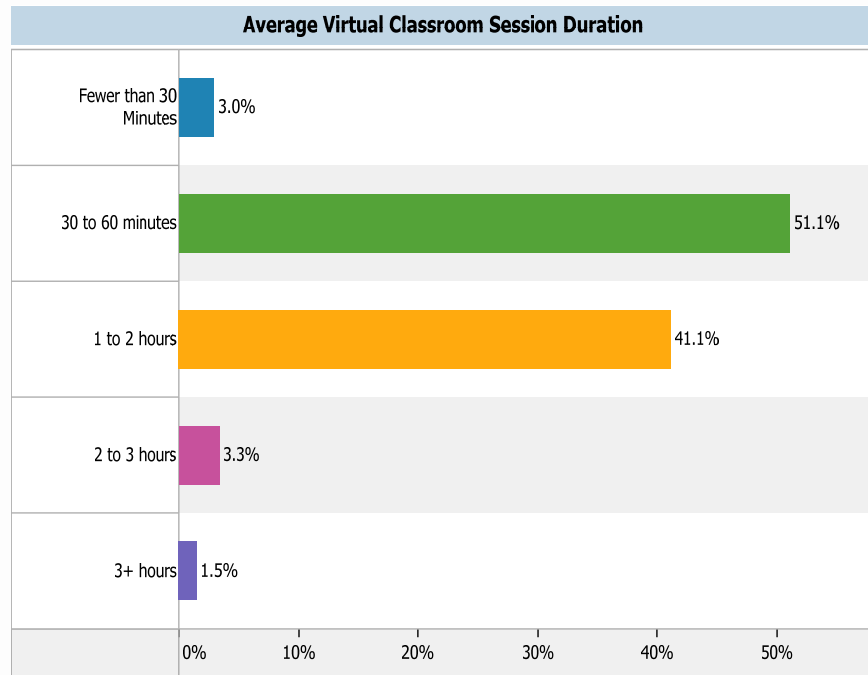
Although more than half of respondents use a virtual classroom application hosted by the vendor or vendor partner, larger organizations are more likely to host the application internally.

Session Length

How long should synchronous sessions last? That's not an easy question to answer because it depends on many factors. Typically, it is harder to hold learners' attention online, but great content and visuals, and lots of interactivity can make the time fly.

More than 90% of Guild members who answered the survey question hold synchronous sessions that typically last between 30 minutes and two hours (Figure 13).

Figure 13:
Average length of
Guild member syn-
chronous sessions.



Source: The eLearning Guild Research

Typically, virtual classroom sessions tend to *not* be the type of full day sessions that are common in classroom-based training. People typically travel to attend classroom-based sessions and because travel can be expensive, training sessions try to maximize travel expenses with longer sessions. But are longer sessions a great idea? Generally speaking, there comes a point of diminishing returns when trying to concentrate for extended periods of time. The ability to attend virtually allows us more flexibility to think through how much time is optimal for learning, without regard to travel costs.

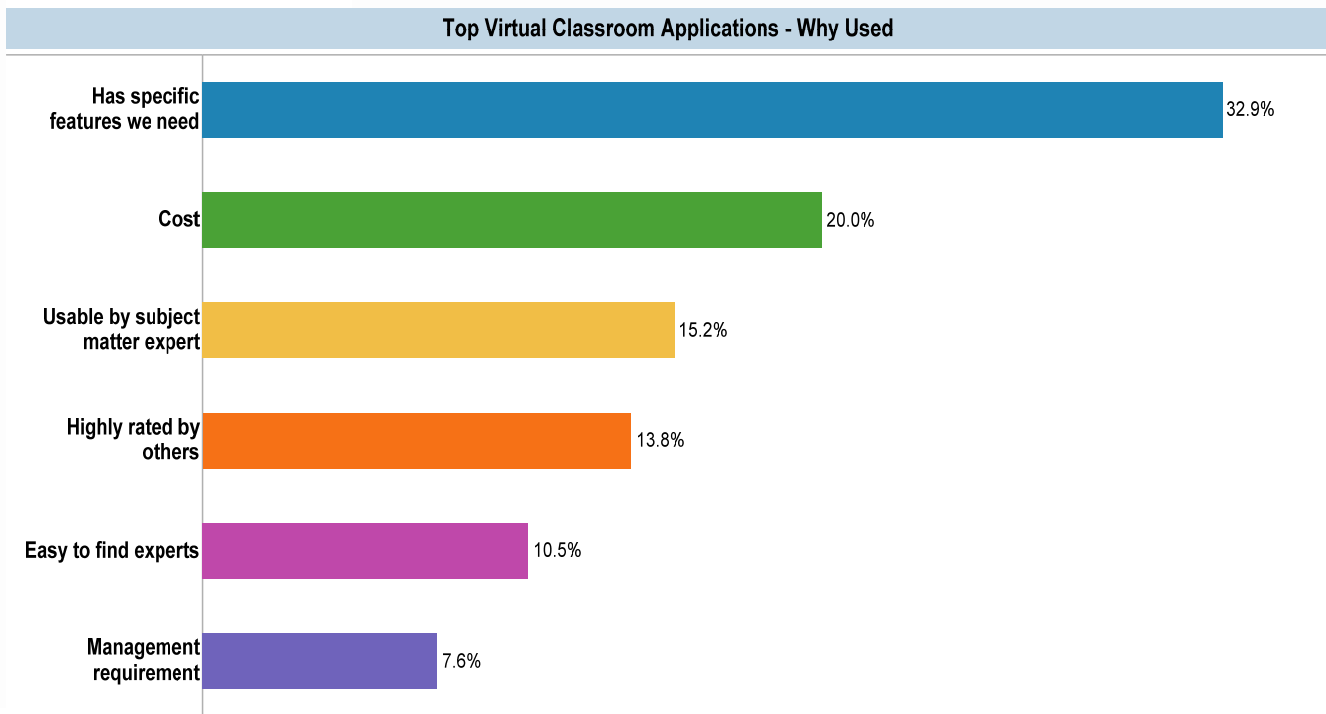
It's also important to realize that it's hard to keep learners' full attention for long periods of time when they are not physically present. If learners are at their desk, there are a lot of competing demands. So, for this reason as well, shorter sessions make sense.

■ Selecting Virtual Classroom Applications

Selection of a virtual classroom application is usually a matter of finding one that meets your cost considerations and has the features you need. *Guild* members who answered the survey certainly used this approach to selecting virtual classroom applications (Figure 14).

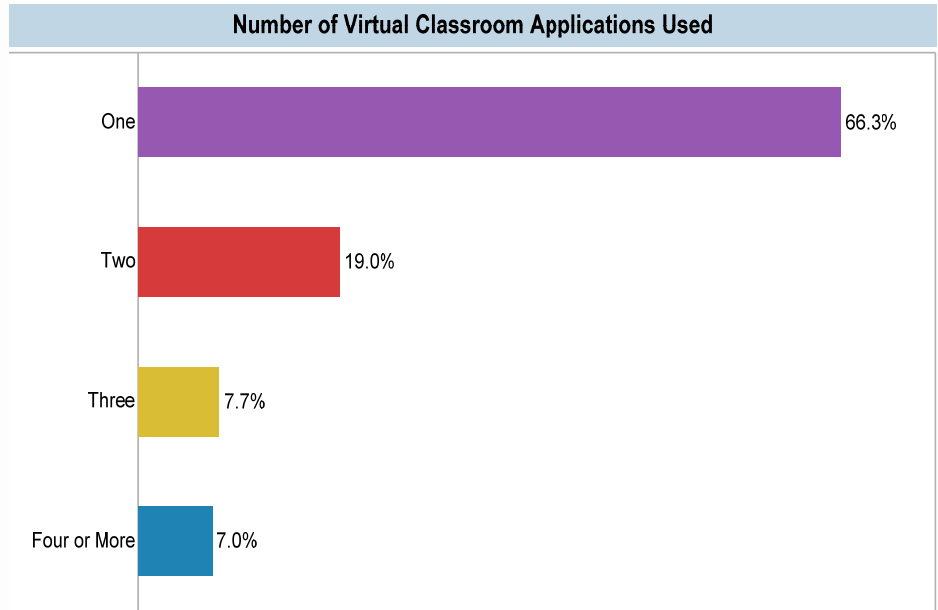
Figure 15 on page 26 shows that most respondents use only one virtual classroom tool and Figure 16 on page 26 shows that this holds true even for organizations with more e-Learning experience, although those with more experience show slightly higher percentages of using more than one tool.

Figure 14:
Reason Guild members selected their virtual classroom application.



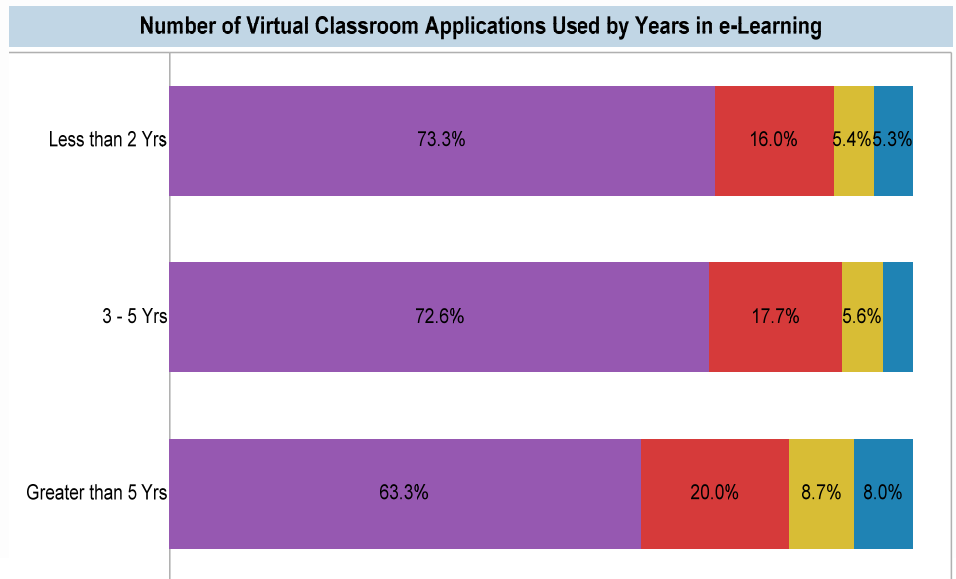
Source: The eLearning Guild Research

Figure 15:
Number of virtual classroom applications used by Guild members.



Source: The eLearning Guild Research

Figure 16:
Top virtual classroom applications used by Guild members, by years in e-Learning.



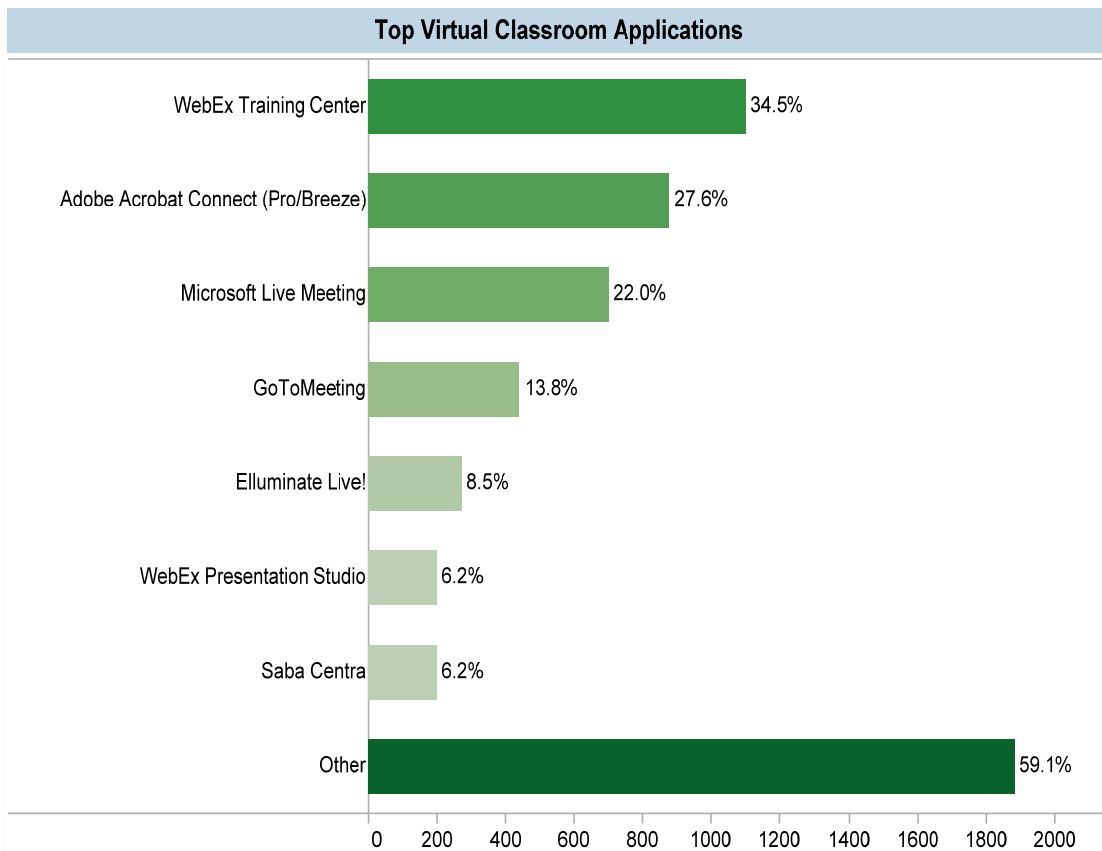
Source: The eLearning Guild Research

Number of Tools Used

- Four or More
- Three
- Two
- One

Figure 17 shows the top virtual classroom applications used by respondents and Figure 18 on page 28 shows the top virtual classroom application used by respondents by organization size.

Figure 17:
 Top virtual classroom applications used by Guild members.

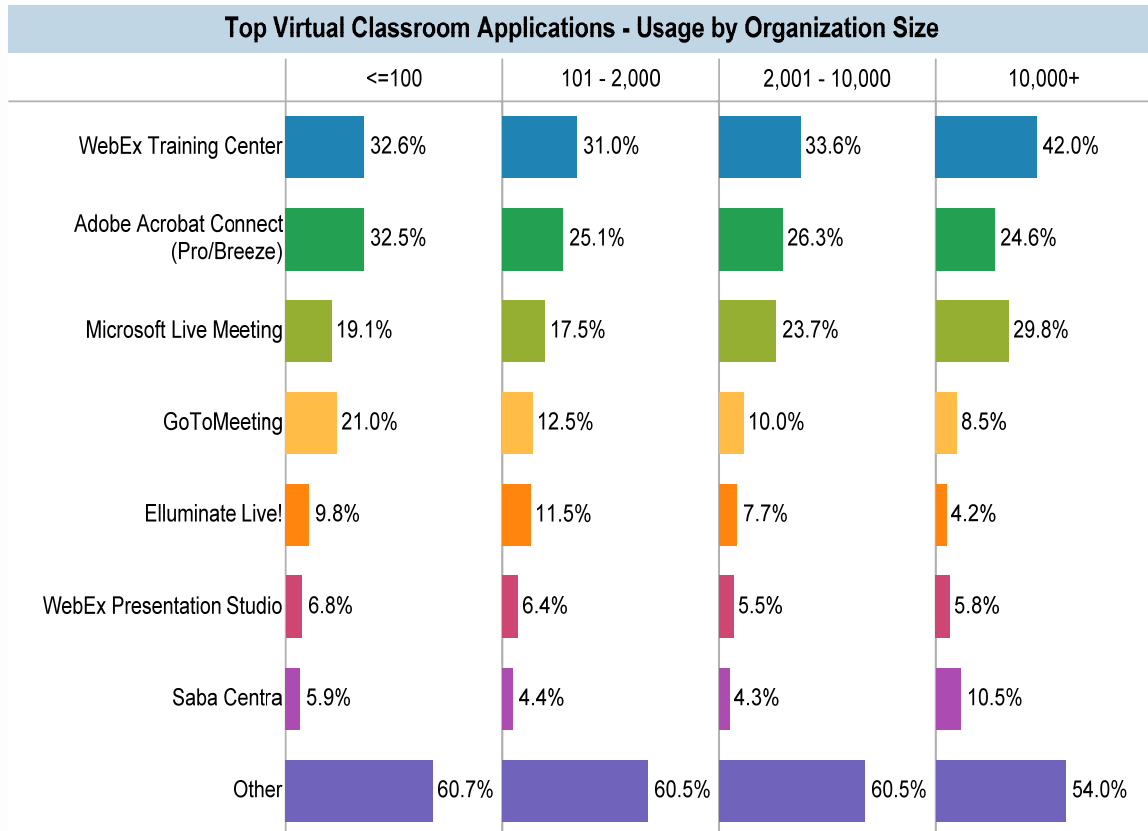


Source: The eLearning Guild Research

Figure 18:
Top virtual classroom applications used by Guild members, by organization size.

There are numerous virtual classroom tools (including the free and inexpensive virtual classroom tools mentioned earlier) and that's likely why the Other category in Figures 17 and 18 is large.

Figure 19 on page 29 shows the top-five virtual classroom applications used by Guild members by industry.

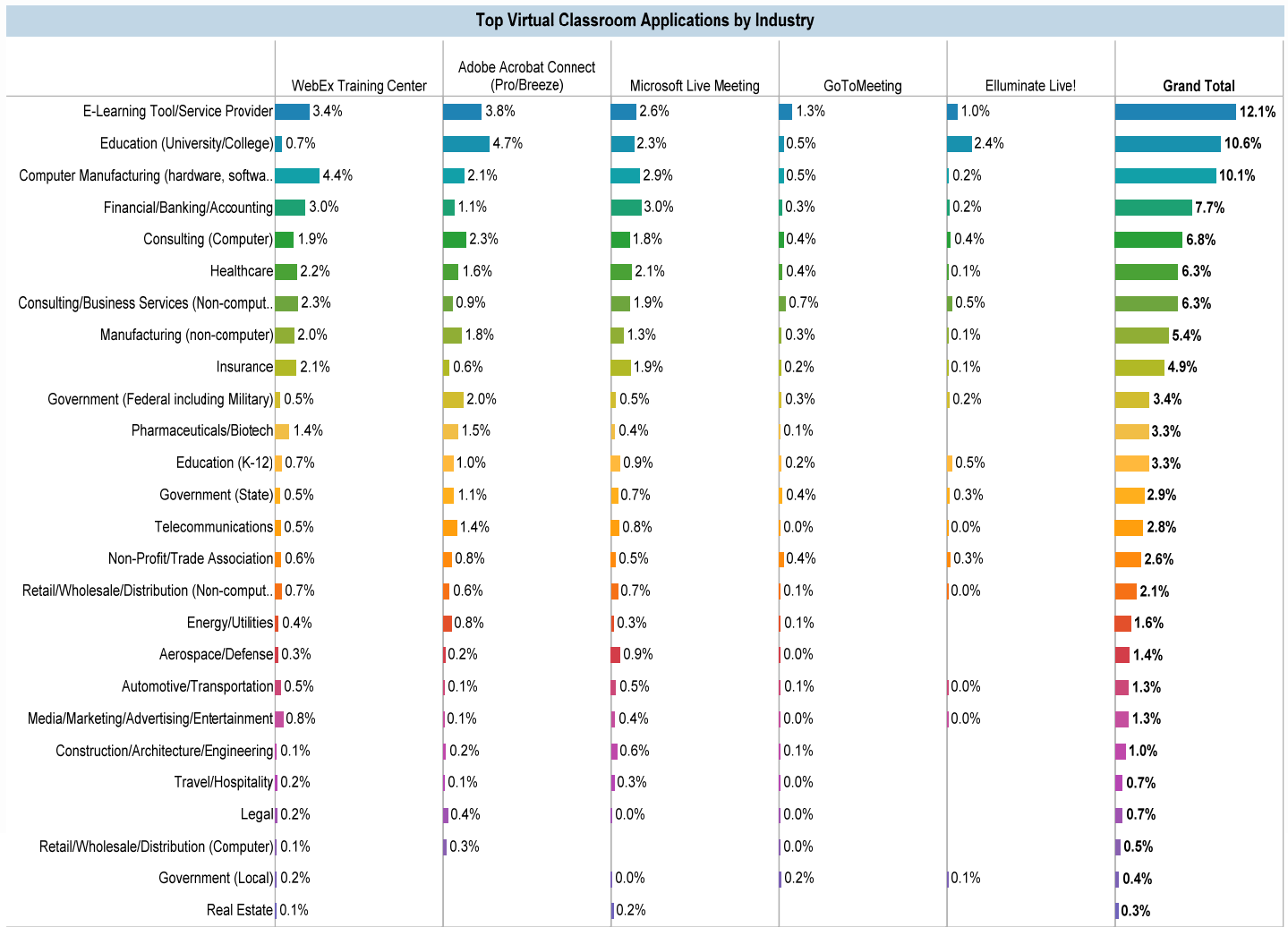


Source: The eLearning Guild Research

Let's assess which tools are tops with which industries¹⁴. WebEx Training Center is the top virtual classroom application used by Computer Manufacturing, Financial/Banking/Accounting (tie), Healthcare, and Consulting/Business Services. Adobe Connect is the top virtual classroom application used by e-Learning Tool/Service Providers, Higher Education, Computer Consulting, Government, and Pharmaceuticals. Microsoft Live Meeting is the top virtual classroom application used by Financial/Banking/Accounting (tie).

¹⁴ I am only including industries that made up more than 1% of respondents in these comments.

Figure 19:
Top virtual classroom applications used by Guild members, by industry



Source: The eLearning Guild Research

■ Applications for Those who are Getting Started

Most organizations that are getting started prefer to use applications that are easier to use and have less of a learning curve. Figures 20 and 21 on the next page show that:

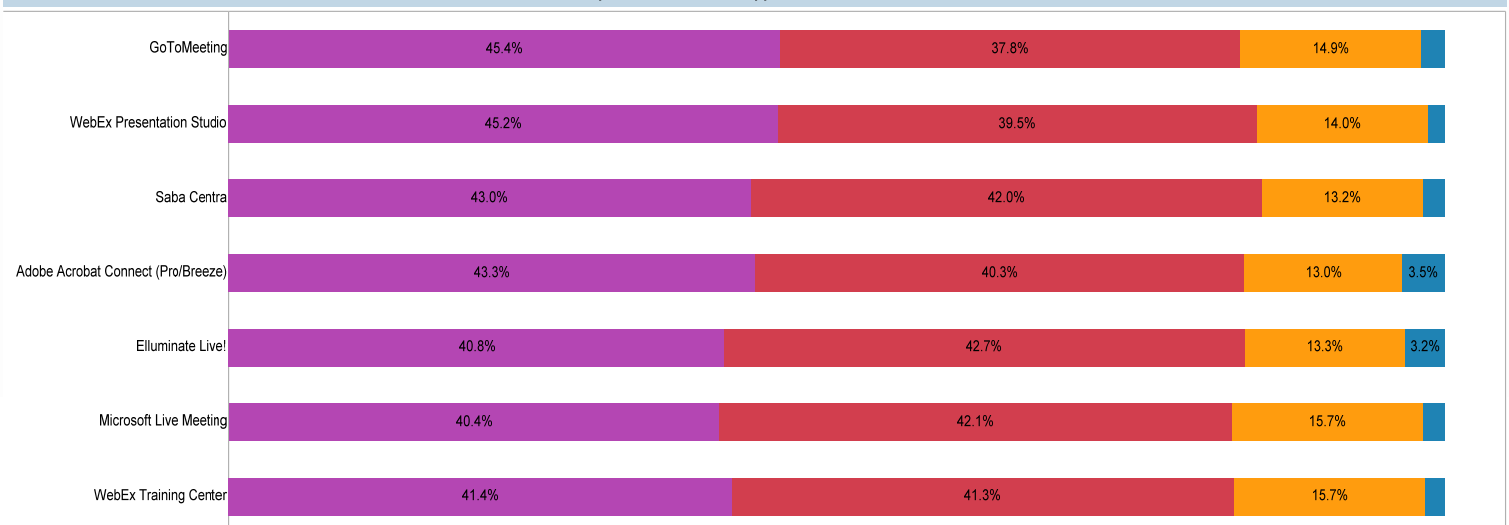
- *Guild* members rate virtual classroom applications as pretty easy to use in general.
- It really doesn't take very long to feel proficient with most virtual classroom applications.

Figure 20 shows how respondents rated the ease of use of the top virtual classroom applications. Figure 21 shows how long *Guild* members who answered the survey feel it takes to become proficient with the virtual classroom applications they use.

More than 80% of respondents rated all of these tools as very easy or somewhat easy to use. And most respondents feel that you can become proficient with most of the applications in two weeks or less.

Figure 20:
Top virtual classroom applications by ease of use.

Top Virtual Classroom Applications - Ease of Use

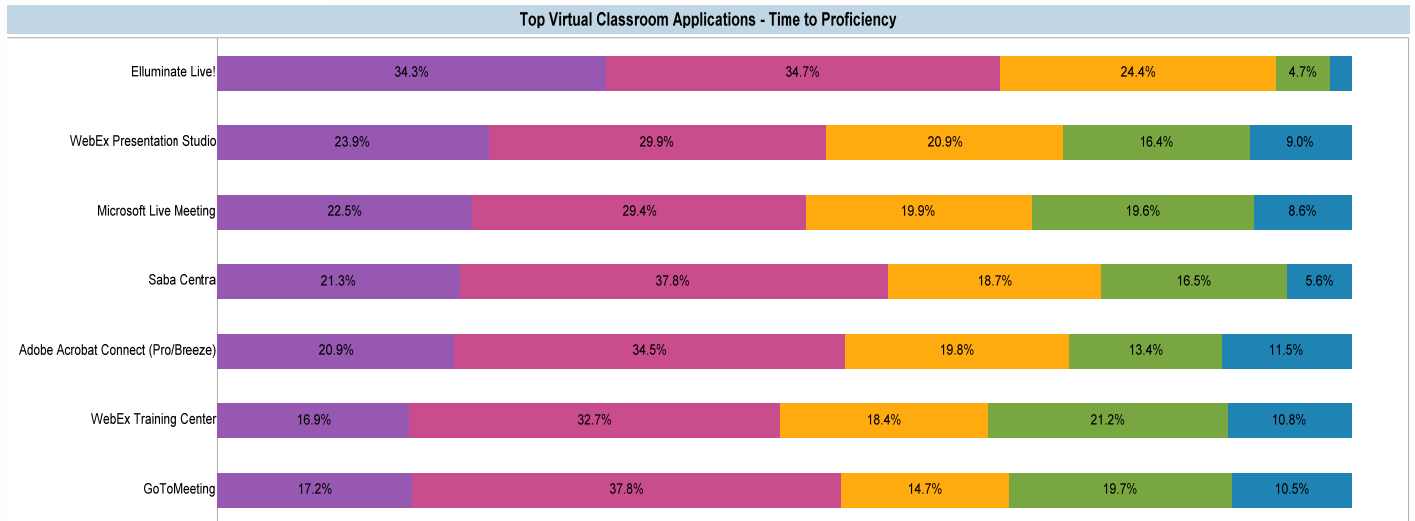


Source: The eLearning Guild Research

Answer

- Very difficult
- Somewhat difficult
- Somewhat easy
- Very easy

Figure 21:
Top virtual classroom applications, time to proficiency.



Source: The eLearning Guild Research

Answer

- More than 3 months
- 1-3 months
- Two weeks
- One week
- One day or less

■ Skills for Successful Synchronous e-Learning

There are numerous skills and tasks involved in producing good virtual classroom sessions (Table 4 on Page 32). Each skill type doesn't necessarily mean a separate person (typically, one person can fill multiple roles) and all skills may not be required for each synchronous e-Learning session.

Table 4:
*Typical skills and
tasks for virtual
classroom sessions*

Skill	Major Tasks
Management	<ul style="list-style-type: none"> Make a business case for synchronous e-Learning Select synchronous tools and vendors Manage staff and vendors Evaluate quality and ROI
Production	<ul style="list-style-type: none"> Organize and manage workflow before, during, and after events Communicate with stakeholders Train and support facilitators and others Manage events Create and implement backup plans
Design	<ul style="list-style-type: none"> Determine needed content, activities, and assessments Design needed content, activities, and assessments Determine needed media Evaluate learning and sessions Use feedback to improve sessions
Facilitation/ Instruction/ Presentation	<ul style="list-style-type: none"> Welcome participants Use facilitation and collaboration tools Present sessions Guide activities Answer questions
Media Development	<ul style="list-style-type: none"> Develop media (images, video, etc.) Develop slides and handouts
Technical	<ul style="list-style-type: none"> Test media and slides Test application Solve technical problems

There are a lot of behind-the-scenes skills here that you may not have considered, if you haven't already produced virtual classroom sessions. Many of these skills belong to the "Producer," whose job it is to ensure that all the elements — application, content, media, presenter, and learners — come together for a valuable session. A synchronous Producer has a long to-do list. Some of the most critical items on that list include:

- Setting up practice sessions
- Training and coaching presenters
- Assuring that learners have needed information
- Testing and preparing content and media
- Creating and managing workflows for the session
- Managing the application during the session
- Providing support to learners and presenters during the session

The *eLearning Guild's Handbook on Synchronous e-Learning* has a great deal of additional information about the tasks that lead up to effective synchronous e-Learning and I highly recommend that you download it. In addition, the Guild's eBook *144 Tips on Synchronous e-Learning Strategy + Research* has great tips for planning and facilitating synchronous session.¹⁵

■ Tips for Successful Synchronous e-Learning

You can do "typical" one-way PowerPoint presentations in synchronous sessions but they don't work too well. Because these sessions typically allow learners to "attend" from their desk, it is also very easy for learners involved in these sessions to get distracted by e-mails or activity around them. Research shows that unless engaged, learners in these sessions tend to multitask. That's not good!

In this section, I'll provide some tips for successful synchronous sessions. Don't forget to download *The eLearning Guild's Handbook on Synchronous e-Learning* and *144 Tips on Synchronous e-Learning Strategy + Research* as they are filled with more tips.¹⁶

¹⁵ See References and Resources section for links to these resources.

¹⁶ See the References and Resources section for links to these resources.

Know Thy Application

Virtual classroom applications are complex technologies. It's important that the people producing these sessions and those presenting are completely familiar with how the application they are using works and have put it through its paces. This includes:

- Making sure the application works on the needed computer platforms,
- Checking links to get into the session,
- Testing slides, polls, and media,
- Checking audio quality for presenters,
- Troubleshooting problems *before* the session, and
- Preparing to deal with learners' questions and technical problems as they enter and use the application.

Online presenters must know the synchronous application *really* well and should practice (numerous times) with the application and the features that they will use during the session.

There should also be contingency plans in place in case there are technical problems. For example, if the application sharing functionality is too slow, will you have screen shots or images to use?

Present Well

When I started facilitating using virtual classroom applications for the *Guild* and others a number of years ago, I was lucky enough to be coached by Karen Hyder, Online Event Producer and Speaker coach at Kaleidoscope Training and Consulting and *The eLearning Guild*. One of the most important things she taught me was the importance of being prepared.

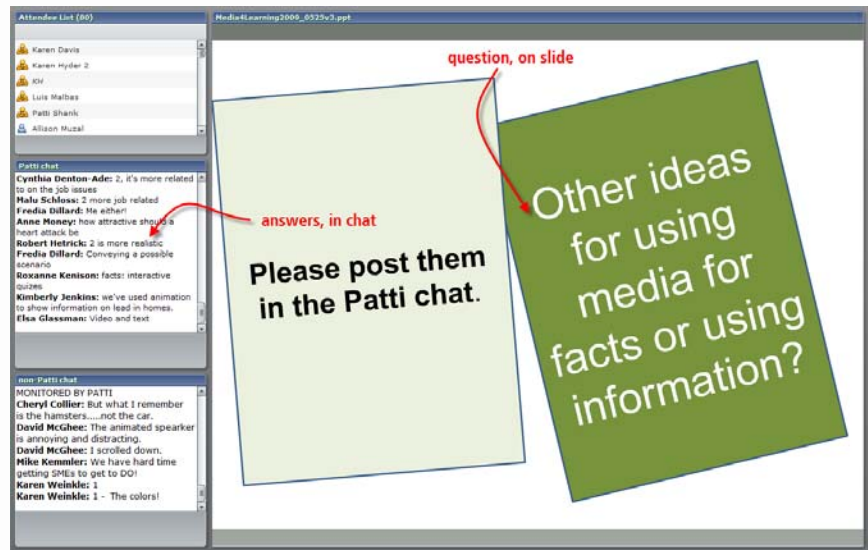
Karen explains that skilled classroom trainers may feel like fish out of water when presenting online because the methods they've relied on to connect with their audience and determine if learners are following are suddenly gone. They can't observe body language and they don't know if their message is being received clearly.

But presenters *can* and *must* provide effective sessions and interact with the audience. It takes planning, and use of effective strategies for engaging an audience that you can't see. Here are a few of the methods Karen taught me (and some I've learned along the way):

Use tools to get learner feedback. For example,

- Ask learners to click a checkmark or thumbs-up icon to indicate that they are ready to move on
- Use polling slides to assess opinions
- Use slide questions and chat to have learners answer questions (Figure 22)

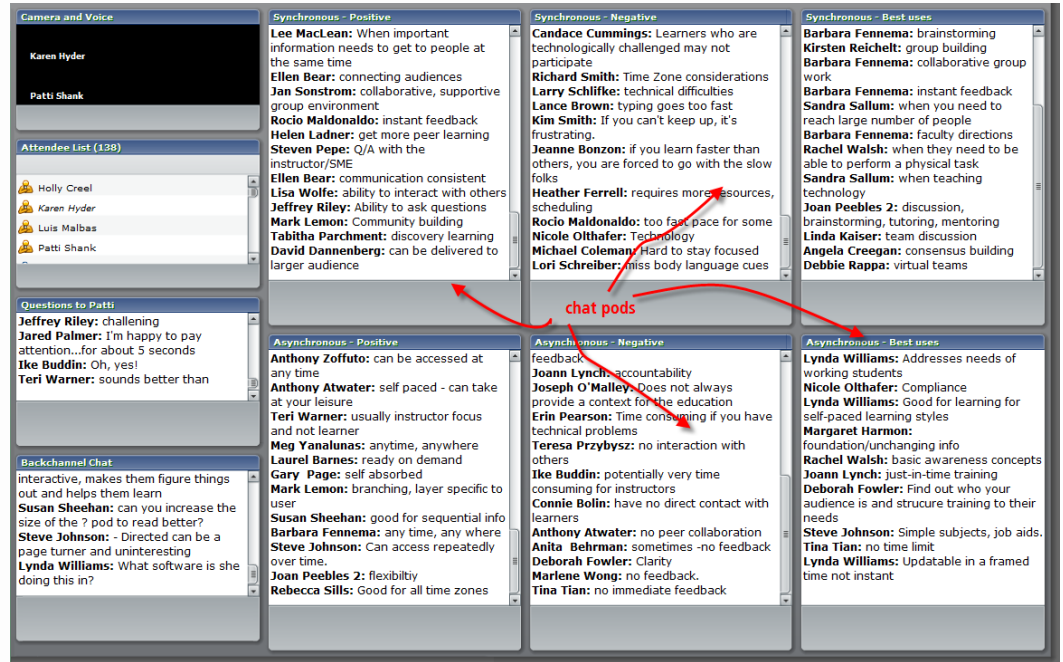
Figure 22:
Example slide with question and answers in chat from Guild synchronous Online Forum session facilitated by Patti Shank, using Adobe Connect.



Create interactive activities using the available tools. Examples:

- Divide learners up by their location and ask learners from a specific location to use the chat message window to answer a specific question (and then move on to another question, answered by learners in another location).
- Rather than present all the information yourself, involve learners. For example, display slides that pose questions and ask learners to respond on the whiteboard or chat (Figure 23 on Page 36).

Figure 23:
Example activity where learners are divided up and answer a question with their group using chat pods from Guild synchronous Online Forum session facilitated by Patti Shank, using Adobe Connect.



Make sure learners have something to see, think about, or do so they aren't tempted to multitask (a typical problem in synchronous e-Learning).

Don't read your slides out loud! Slides should support the interactive presentation. And along the same line, don't crowd your slides with text. If you do, learners will be reading your slides, not listening to you.

Be careful what you say and how you sound. For example:

- You should sound conversational, professional, and credible
- Don't ramble on
- Karen reminds us that filler words such as "um," "uh," and "like" sound unprofessional. She says, "If you need time to think, think. Then speak."
- Rehearse!

Always have a Plan B (and C). You are using technology and surprises will occur more often than you imagine. Contingency plans should be prepared so the session can proceed when things don't go according to plan.¹⁷

Write some remarks on your presentation notes (I print my PowerPoint slides to use as presentation notes) as to where you should be at what points in the presentation. And determine what slides to skip if time is

¹⁷ My experience is that you will need to adapt to one issue or another quite often. It gets easier to think on your feet as you become more used to teaching this way, but in the meantime, have alternate plans!

running short. I have only had one session where I saw that I was running early but I have had *many* sessions where I needed to cut less important slides because time was running short.

And in case this isn't obvious, make sure you have extremely compelling content and activities. It's very, very easy to tune out in synchronous sessions, so they need to be engaging, both in terms of content and visual focus. Rather than showing a wall-o-words and endless bullet lists, show what you are talking about: images, diagrams, concise key point, etc.

■ Final Thoughts

Flexible learning, that is, information, instruction, and support that is available when and where it is needed, has become critical in today's organizations, and e-Learning has become a key part of the flexible learning landscape. Companies are increasingly mixing and matching classroom and learning technologies for this purpose. Because each type of e-Learning has benefits and challenges, mixing them can increase the benefits and mitigate the challenges.

Synchronous e-Learning has become a normal and expected part of the mix because it has a lot going for it. Although asynchronous e-Learning can be more flexible, synchronous e-Learning can be plenty flexible, since all can attend from their own location. And since synchronous e-Learning can provide immediate support and interaction, these social aspects of learning can improve motivation, engagement, and results.

I used to think synchronous e-Learning was bound to be boring (before I became involved with using it) but it's only boring if the presenter and the content is boring! So by all means learn how to present well and prepare engaging content (including slides) and activities!

If you have been reading the series of Getting Started reports I have been writing that use Guild member data to help you make good decisions for your first e-Learning initiatives you are probably beginning to notice some common themes. Those themes include the need to gather information, consider stakeholders needs, and do the prep work.

■ Important Takeaways

The following is a list of the some of the most important takeaways from this report.

- Learning flexibility, which gets instruction, information, and support to learners when and where they need it, has become critical in today's organizations. Synchronous e-Learning is one of the ways of providing learning flexibility.
- Synchronous e-Learning involves learners attending a live learning event at the same time from different places.
- Approximately 66% of *Guild* members who answered the survey question use synchronous e-Learning.
- Synchronous e-Learning works especially well when motivation is important, when interaction with the presenter and other learners is desirable, or in other situations where being live is valuable.
- Although synchronous e-Learning can use of a variety of technologies, such as chat, instant messaging, audio conference calls, and virtual classroom sessions, virtual classroom sessions are what is most commonly referred to as synchronous e-Learning.
- Almost 100% of respondents agreed or strongly agreed that synchronous tools and the opportunities they afford are essential to their organization. And greater than 80% agreed or strongly agreed that management believes these approaches are essential to the organization.
- Almost 90% of respondents agreed or strongly agreed that synchronous sessions are as effective as face-to-face classroom sessions.
- Learning research shows no difference in outcomes when learning using one medium versus another, distance versus in-person, and synchronous versus asynchronous.
- The virtual classroom feature used with the most frequency is showing slides, followed by demonstrating software applications, answering learner questions, recording sessions for viewing later, chatting, and using drawing tools and polling questions.
- The most frequent content types *Guild* members delivered through virtual classroom applications include desktop/Web applications, product knowledge, technical skills, and business skills training. The least frequent content types *Guild* members delivered through virtual classroom applications include regulatory compliance, new hire orientation, and HR topics.
- The cost for virtual classroom applications varies greatly.

- Although more than half of respondents use a virtual classroom application hosted by the vendor or vendor partner, larger organizations are more likely to host the application internally.
- More than 90% of *Guild* members who answered the survey question typically have synchronous sessions between 30 minutes and two hours in length. Virtual classroom sessions are generally not daylong sessions for a variety of reasons. One important reason is that it's hard to keep learners' full attention for long time periods when they are not physically present.
- Selection of a virtual classroom application is usually a matter of finding one that meets your cost considerations and has the features you need.
- The top-three virtual classroom applications used by respondents are WebEx Training Center (34.5%), Adobe Connect (27.6%), and Microsoft Live Meeting (22.%). The most-used virtual classroom application by corporate and non-profit respondents is WebEx Training Center. The top virtual classroom application used by education and government is Adobe Connect.
- *Guild* members who are newer to e-Learning by-and-large use the same virtual classroom applications as *Guild* members who are more experienced with e-Learning.
- Most respondents rate the virtual classroom application they use as easy to use.
- There are numerous skills and tasks involved in producing good virtual classroom sessions. Many of these skills belong to the "Producer," whose job it is to ensure that all the elements — application, content, media, presenter, and learners — come together for a valuable session.
- Virtual classroom applications are complex technologies. It's important that the people producing these sessions and those presenting are completely familiar with how the application they are using works and have put it through its paces.
- Virtual classroom presenters need to provide compelling content, get participant feedback, use interactive activities, and prepare for working around technical and other problems.

■ References and Resources

From *The eLearning Guild* (www.eLearningGuild.com)

Learning Solutions articles:

Live Training on Your Phone? A Closer Look at Adobe Connect Pro Mobile

Paul Clothier (March 8, 2010)

<http://www.learningsolutionsmag.com/articles/433/live-training-on-your-phone-a-closer-look-at-adobe-connect-pro-mobile>

Adobe Releases Connect Pro Mobile for iPhone

Anne Derryberry (February 25, 2010)

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Beginner's Guide to Webinars: Blending Webinars With Face-to-Face (Third of Three)

Roger Courville (June 15, 2009)

<http://www.learningsolutionsmag.com/articles/33/beginners-guide-to-webinars-blending-webinars-with-face-to-face-third-of-three>

Bridging the Gap Between Facilitated and Non-Facilitated Online Courses

Julie Radachy & Christa Ehmann Powers (June 11, 2009)

<http://www.learningsolutionsmag.com/articles/36/bridging-the-gap-between-facilitated-and-non-facilitated-online-courses>

Beginner's Guide to Webinars: Engagement Above and Beyond "The Usual" (Second of Three)

Roger Courville (June 8, 2009)

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Webinars: A Beginner's Guide (First of Three)

Roger Courville (June 1, 2009)

<http://www.learningsolutionsmag.com/articles/39/webinars-a-beginners-guide-first-of-three>

Making the Grade: Synchronous E-Learning Tools Support Multiple Functions

Jason Shaeffer (June 2, 2008)

<http://www.learningsolutionsmag.com/articles/97/making-the-grade-synchronous-e-learning-tools-support-multiple-functions>

Five Interactive Ways to Improve Synchronous e-Learning Delivery

Marc Gamble (March 12, 2007)

<http://www.learningsolutionsmag.com/articles/189/five-interactive-ways-to-improve-synchronous-e-learning-delivery>

Teach in Your Pajamas: Becoming a Synchronous e-Trainer
Karen Hyder (November 25, 2002)
<http://www.learningsolutionsmag.com/articles/375/teach-in-your-pajamas-becoming-a-synchronous-e-trainer>

Guild e-Books:

The eLearning Guild's Handbook on Synchronous e-Learning
<http://www.elearningguild.com/content.cfm?selection=doc.542>

144 Tips on Synchronous e-Learning Strategy + Research
<http://www.elearningguild.com/content.cfm?selection=doc.1025>

Other Resources:

Patti Shank's annotated resource list:
<http://delicious.com/LearningPeaks>

Jane Hart's directory of learning tools:
<http://c4lpt.co.uk/Directory/index.html>

Meeting, Conferencing, and Virtual Classroom Tools
<http://archive.e-learningcentre.co.uk/eclipse/vendors/meeting.htm>

Karen Hyder's Website
<http://www.karenhyder.com>

Top Ten Reviews 2010 Web Conferencing Review
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http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1b/a7/9c.pdf

Virtual classroom applications mentioned in this report (listed alphabetically):

- Adobe Connect www.adobe.com/products/acrobatconnectpro
- Adobe Connect Now www.adobe.com/acom/connectnow
- Citrix GoToMeeting www.gotomeeting.com
- Citrix GoToWebinar www.gotomeeting.com/fec/webinar
- DimDim www.dimdim.com
- Elluminate Live www.illuminate.com
- Microsoft Live Meeting www.livemeetingplace.com/easy
- Saba Centra www.saba.com/products/centra
- Cisco WebEx Presentation Studio www.webex.com/product-overview/training-center/presentation-studio.html
- Cisco WebEx Training Center www.webex.com/product-overview/training-center.html
- WiZiQ www.wiziq.com/virtual_classroom.aspx

■ Glossary

These definitions are the author's definitions. Many of these terms are adapted from definitions for Essential Articulate Studio '09 (Patti Shank, author, Jones and Bartlett Publishers, June 2009).

Term	Definition
application sharing	A synchronous tool that allows the facilitator to share what is on his or her desktop. May be used for demonstrating applications, sharing media, etc.
asynchronous	Information or instruction that you can use whenever and wherever needed (assuming necessary technologies are available).
chat	A synchronous text communication over a network or the Internet. Users type responses and they appear on the other user's chat window.
e-Learning	Information or instruction delivered by electronic technologies that may or may not be networked.
facilitator	The person facilitating the learning during a synchronous session. May be called an instructor, presenter, etc.
interaction	Learner actions that impact what learners see and do with the materials. This can be low-level interaction such as selecting which link to click, or higher levels of interaction such as answering questions and making decisions about a scenario.
media	Media are specific means of communication. Typical media for communicating an informational or instructional message include text, images, simulations, animations, audio, and video.
modalities	Technologies used to provide access to information and instruction.

poll	A synchronous tool that allows the participants to answer prepared questions and lets the facilitator show the aggregated results. May be used for gauging knowledge, assessing interest, etc.
producer	Person(s) who may assist facilitators in preparing for the synchronous session, assist the facilitator during the session, handle participant problems, and who generally works to make sure that the synchronous session works well for everyone involved.
ROI	Return on investment. Measuring value based on cost and outcomes.
synchronous	Live e-Learning using virtual classroom applications that allow communication between instructors and learners in real time.
VoIP	Voice over Internet Protocol. VoIP lets people talk to and hear others using the Internet as the transmission technology (rather than phone lines).
whiteboard	A synchronous tool that allows the facilitator and/or participants to collaborate on a screen during the session. May be used for drawing, marking up documents, etc.

■ About the Author



Patti Shank, Ph.D., CPT, is the president of Learning Peaks, LLC, an internationally recognized instructional design consulting firm. Before starting her own company, she was involved in and managed training and health education, and she currently works with corporate, higher education, and professional development clients and content experts to improve information and instruction. Patti is listed in *Who's Who in Instructional Technology* and is an often-requested speaker at training and instructional technology conferences, including *The eLearning Guild* conferences (which she LOVES!). She is the co-author of *Making Sense of Online Learning* (Pfeiffer, 2004), editor of *The Online Learning Idea Book* (Pfeiffer, 2007), co-editor of *The E-Learning Handbook* (Pfeiffer, 2008), and co-author of *Essential Articulate Studio '09* (Jones and Bartlett, 2009). Patti is an award-winning writer, and has written articles for *Learning Solutions Magazine*, Adobe's Resource Center, *Training Magazine*, and *Magna Publication's Online Classroom*. She is passionate and outspoken about improving outcomes from performance improvement and instructional projects, and her research on new online learners won an EDMEDIA (2002) best research paper award.

■ Appendix 1: Virtual Classroom Application Comparison Charts

Provided by Karen Hyder, Online Event Producer and Speaker coach at Kaleidoscope Training and Consulting and *The eLearning Guild*.

Features	Adobe Acrobat	WebEx (TC)	Elluminate	GoTo Training	MS Live Meeting	Notes
<i>Load and show files</i>	PPT, + Media	PPT + more	PPT + Media	Nothing is uploaded	PPT +	Some file types must be converted first using a tool like Microsoft Office Live Meeting, 2007 Document Writer, or Flash Player
<i>File transfer</i>	Yes	Yes	Yes	Yes	Handout	Participants can download files like with ftp. Requires instruction
<i>Audio</i>	VoIP or selected vendor Conference call (More options now)	VoIP or Conference call (participants' choice)	VoIP or Conference call (participants' choice)	VoIP or for-fee call (participants' choice) Can upgrade to toll-free number	VoIP or Conference call (participants' choice)	Good, wired broadband and good headset needed. Allow time for testing/trouble shooting.
<i>Application share</i>	Yes	Yes	Yes	All sharing	Yes	Can turn over controls to participants
<i>Polling</i>	Yes	Yes	Embedded in PPT	Yes	Yes	Create all polls in advance
<i>Q & A (controlled)</i>	Yes	Yes	Yes	Yes	Yes	

■ Appendix 1: Virtual Classroom Application Comparison Charts (continued)

Features	Adobe Acrobat	WebEx (TC)	Illuminate	GoTo Training	MS Live Meeting	Notes
<i>Chat</i>	Yes	Yes (privilege)	Yes	Everyone can chat (New!)	One : one	Chat is key to having participants communicate opened responses
<i>Breakout rooms</i>	Yes	Yes	Yes	Use GTM	Yes	Mind the audio options in Breakouts
<i>Participants need to install something?</i>	FlashPlayer	Yes	Yes	Yes	Yes	Not a big deal if IT knows and approves, and there is no firewall blocking access
<i>Price point</i>	\$\$\$	\$\$\$	\$\$	\$	\$	Depends on "flavor," user numbers, and audio choice

For a more in-depth comparison of virtual classroom tools, Karen recommends Top Ten Reviews' *2010 Web Conferencing Review*¹⁸.

¹⁸ See the References and Resources section for URL.

■ Appendix 2: Synchronous Analysis Template

Use this table and Table 2 on Page 12 to analyze whether a synchronous approach makes sense for a given information or instructional project. (Yes answers means a synchronous approach is more appropriate.)

Attributes	Questions	Answers
Time and place	<p>Is it acceptable for learners to wait for the synchronous session to occur?</p> <p>Will setting aside a <i>specific</i> time improve the likelihood of achieving needed outcomes?</p>	
Resources	<p>Do you have the needed virtual classroom application?</p> <p>Do intended learners have needed access?</p>	
Format	<p>Do learners value the ability to interact with the presenter and other learners?</p> <p>Do stakeholders feel that a synchronous format makes sense?</p>	
Support	<p>Do learners need the immediate support provided by synchronous sessions? Will you design this support into the session?</p>	
Motivation	<p>Will synchronous delivery improve the motivation of learners to attend and learn?</p>	
Hybrid approach	<p>Does it make sense to use a synchronous approach for all or parts of the project? If parts, which parts?</p>	