

Issues in Web-Based Training

What is Web-Based Training?

Web-Based Training, or WBT, is training delivered over the Internet, specifically over the World Wide Web via the http protocol, and viewed with a browser program such as Internet Explorer.

Computer-Based Training, or CBT, is technology-based training typically delivered on CD-ROM, or over a local network. It's often created and delivered with a proprietary software tool.

Before the year 2000, CBT was more popular than WBT, because bandwidth and technology limitations made it difficult to deliver full multimedia over the Internet. Today that is not true. WBT can do almost everything that CBT can do (except deliver long, DVD-quality video clips), and CBT is usually only seen today in off-the-shelf packages or in workplaces with no Internet access.

WBT vs. CBT

WBT is preferable to CBT because:

1. Content is located at a single source location. It can be updated centrally, and all users will see the updated version immediately. Once the WBT product is updated, there are no outdated versions hanging around on disk to confuse learners.
2. Delivery is essentially free. There is no cost associated with burning disks, labeling disks, mailing or delivering disks, and going through the process again and again with each new version.
3. WBT can be viewed through any commonly available browser, whereas CBT often requires special hardware (CD-ROM drive, graphics card, etc.) and special software viewers.

WBT vs. Classroom Training

WBT can seem like the perfect solution to the problem of training a large number of people in a hurry, because: a) There are no travel costs; b) there are no classroom costs; c) there are no instructor costs, and d) there is no upper limit on how many learners can be trained at once.

These are significant advantages and they are real. However, without the right kind of organizational and infrastructural support, WBT usually fails completely.

Research shows that the single greatest impediment to the success of WBT is a low completion rate. It is not uncommon for large organizations to see a WBT completion rate less than 10%, and in some cases less than 1%.

If it's a challenge to get access to a computer in a quiet place for the time it takes to complete a WBT course, people just don't do it.

Only a small number of employees are willing to pursue e-learning on their home computers on their own time. People are busy at work, and unless they have the kind of organizational support that sets aside dedicated, paid time to complete WBT in a quiet, private location, they just don't do it.

It takes a lot of skill and experience to build effective WBT. This makes it expensive and time-consuming to build. If WBT is boring or hard to follow, people just drop out.

Learning is a social activity. Many people find solitary learning boring, so they don't do it.

Therefore a "solution" that was meant to train large numbers of people at a time often results in less than 10% of the audience being trained.

The only certain way to make WBT succeed is to bring people into a dedicated room during paid working hours for a dedicated period of time, and provide them with a skilled and helpful resource for help, motivation, and feedback. In other words WBT works best when it most closely simulates classroom training. So why bother with WBT?

In fact there are very good reasons for choosing a WBT or partial WBT solution. WBT can be a very powerful tool under the right circumstances, and can save a large organization a lot of money. On the following pages I discuss in greater detail some of the advantages and disadvantages of WBT.

What's better - Classroom Training or WBT?

The answer is: it depends.

Classroom training has the following advantages over WBT

- High interactivity with other learners improves retention.
- Provides a great opportunity to learn from experience of classmates.
- Personalized assistance from the instructor means learners stand a better chance of having their unique needs met.
- Requires less development time since there's a heavy reliance on the skills and experience of the instructor.
- It's easy to confirm whether learners have taken the course.
- In a computer lab, it's easy to simulate real-world situations.
- Completion rate is 100%.
- It's easy to use quizzes and tests and other forms of evaluation to confirm that learning has occurred.

Classroom training has the following disadvantages compared to WBT

- Scheduling can be challenging and costly, particularly if students are geographically dispersed or find it difficult to leave their workplace.
- Class size is limited, especially if computers are required for training.
- Standards are hard to enforce because content can vary from instructor to instructor and class to class.

WBT has the following advantages over classroom training

- No upper limit on number of students who can be trained at one time.
- No travel costs.
- Most WBT requires no instructor.
- Easy to update from central location.
- Easy to standardize content to entire learner base.

WBT has the following disadvantages compared to classroom training

- Learners must have access to late-model computers and to the Internet.
- WBT requires more development time due to technical requirements.
- WBT requires special expertise to develop and deliver.
- WBT usually requires a special software package or license to develop.
- It's hard to simulate real-world situations in WBT.
- If it is necessary to track learner success and learner completion, an expensive Learning Management System (LMS) is required.
- Without incentives, completion rate can be extremely low – less than 10% for unsupervised WBT is common.

Four Types of Web-Based Training

WBT is not one thing - there are four main types of Web-Based Training. Each is useful under different circumstances, and most training projects will use a combination of different types of WBT with printed documentation, classroom training, Web sites, and other forms of information delivery.

1. Leader-Led or Facilitated Online Learning

In this type of training, there is an instructor on the other end to provide guidance and support. This approach is very common at the university level, since there's a lot of room for interpretation of essays or open-ended questions by the instructor.

Advantages

- High interactivity with other learners.
- Personalized assistance from the instructor.
- Requires less development time since there's a heavy reliance on the skills and experience of the instructor.
- A very high completion rate due to personal follow-up by the instructor.

Disadvantages

- Requires a skilled instructor online during working hours.
- Requires a special software package or license.
- The ratio of students to instructor should not be more than 20-1 per course.

2. Self-Paced, Web-based Learning

There is no instructor for this type of training, but well-constructed self-paced WBT is still structured around formal lessons, typically bite-sized for easy consumption (perhaps 10-30 min. in length). Lessons contain performance objectives, motivation, learning activities, feedback, and evaluation. The biggest disadvantage to this type of training is a very low completion rate.

Advantages

- Learners can start when they're ready and take as much time as they need to complete.
- No upper limit on number of students that can be trained at one time.
- Many studies have shown that among learners who complete self-paced WBT, there is no significant difference in learning and retention from those who complete training in the classroom on the same subject.

Disadvantages

- This type of WBT takes the most time and skill to construct. Development time is typically 40 to 60 hours (or more) for each hour of learning time.
- No interactivity or opportunity to learn from the experience of classmates.
- Is better suited to memorization and mental activities and does not lend itself well to hands-on activities.
- Without a Learning Management System (LMS) there is no way to track whether learners have achieved performance objectives or indeed whether they have completed training or even looked at it.
- A very low completion rate. People are busy and tend to just drop out unless there are organization incentives (both carrots and sticks) to influence learners.

3. Online Tutorials

These are really just online documents meant to be read online or printed. Online tutorials are typically in PDF format.

Advantages

- Quick to develop and to produce, since they are usually based on existing documentation.
- Do not require an instructor.
- Easy to distribute online or via email.
- Self-paced
- Can be used any time, anywhere.

Disadvantages

- No interactivity, no feedback, no external motivation.
- It's a challenge to make users aware that online tutorials exist and to motivate them to use them.
- Online tutorials have a very low usage and completion rate. Learners find online tutorials hard to find, hard to print, and difficult to follow.

4. Web-Based Electronic Performance Support Systems (EPSS)

An EPSS is intended as a just-in-time online instruction in the accomplishment of a short task (say, 5 min.) EPSS often incorporate visual simulations “showing” rather than “telling”.

Advantages

- Can be incorporated into a software product and used like online help.
- Just in time and just enough - available any time, anywhere the product is available.
- Short and therefore more usable and user-friendly in a busy workplace.
- Can serve visual or hands-on learners or ESL learners better than a printed manual.
- Can replace other forms of training for simple tasks that are neither critical nor frequently performed.

Disadvantages

- No interactivity with other learners, no feedback.
- Low usage and completion rate. Studies show that when people don't have the information they need to complete a task, they will typically a) ask someone; b) phone someone; c) try to figure it out themselves; d) read the manual.