

# The Rights of Training

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## *The Right Technology*

Why do entire training organizations fail? Why do students walk away from a learning activity wondering “what was that all about?” The simplest answer is that the organizers fail to get it right. In this series, we will take a hard look at what it takes to not only be successful, but to carry training to a higher level.

### **THE RIGHT CURRICULUM**

The students must be training using a curriculum designed for the job or tasks they are being asked to perform. Simply put, training must be about giving students something new, or allowing them to do something better.

### **THE RIGHT ENVIRONMENT**

Students and instructors must have the right environment, including all the tools, training props, and resources necessary. The environment must be realistic and free from distractions.

### **THE RIGHT STUDENTS**

Without students that are interested and engaged, having all the other pieces won’t save a training session. Students must have the information to arrive at the right place, at the right time, with the tools needed to succeed.

### **THE RIGHT INSTRUCTORS**

Instructors that are prepared, motivated and excited about teaching are necessary for training success. Selecting and rewarding the right instructors helps ensure your training budget yields a return on your investment.

### **THE RIGHT TECHNOLOGY**

Far too many instructors and organizations today rely on technology to make up for poor planning, poor curriculum development and poor instructional techniques. Applying technology in a manner that helps the student achieve the desired outcome is appropriate – replacing a good instructor with a poorly executed online program is not.

Together, understanding and applying these “rights” will help make your training programs stronger, your students happier, and yield a better return on your training dollar.

*The Rights of Training is provided as a tool for clients of Oak Tree Systems as part of an ongoing effort to help them gain insight into the business of training and help them obtain the maximum return on their investment in their TrainingForce installation.*

## The Right Technology

**“Technology is very seductive, and it is certainly changing the way things are designed and made and taught. The problem is when technology has seduced you away from thinking about things as deeply as you should.” – Arthur Ganson**

Most instructors think of two things from the very first mention of technology: Microsoft PowerPoint™ and an LCD projector. Proper application of technology to education and training can be a powerful, positive influence on the student’s experience.

There are six areas of interest when discussing technology and training:

- Presentation Software
- Curriculum Development
- Technology In the Classroom
- Data Management
- Distributed Learning

## Presentation Software

PowerPoint™ and other tools that create presentations are powerful. In the past, publishers and instructors had to put significant effort into creating visuals for a presentation. Presentations were delivered using 35mm slide projectors or acetate overheads. Educators were forced to deliver a reasonably consistent message because the costs and time associated with production were significant.

Presentation software, combined with internet access, changed that significantly. Look around the next conference or symposium you attend and you will likely find a presenter or two sitting in the atrium trying to put the “finishing touches” on their presentation.

**If you are using PowerPoint™ or other tool, the actual presentation should be completed at least 30 days before you are expected to deliver it. Resist the urge to continue changing your message, focusing instead on practicing your delivery.**

Educators who develop their own presentations should ensure the accuracy and timeliness of the information used in each presentation. Although there are many legitimate resources, there is an equal amount of inaccurate or erroneous information. Be diligent in your fact-checking and keep up with your references or sources. Don’t rely on 3<sup>rd</sup> party sites quoting research – go to the source. Use caution paraphrasing information.

Search online and you will find many articles eschewing “rules” for presentations, governing font size, number of slides, etc. You must remember that first and foremost, presentation programs are tools. The presentation is what you as the instructor has to say – not what is projected on the screen behind

you. They used to be called *visual aids* – whatever you put up is there to reinforce and strengthen your message, not replace it. You, not the laptop, are the educator.

The issues with computer-based presentations extend right up to the point of delivery. Many good messages have gone completely unnoticed because audio or video files didn't play properly, the room was too bright so the colors washed out, or because a computer and projector simply wouldn't work together. Many of these issues are overcome through planning and preparation. See our guide covering *The Right Environment* for more insight into preparation.

## Curriculum Development

Developing a presentation for classroom delivery is just one part of curriculum development. Today's training professionals have a wealth of tools available to them. From researching a potential topic to creating course materials and obtaining feedback, technology has affected the development process.

**If you are involved with the creation of presentations, have a good understanding of intellectual property laws as they relate to audio, video, and photographs you plan to use.**

Content development tools are a significant investment. Virtually every tool offers an evaluation or trial period, however. Take advantage of these – select a course or specific content piece that is typical for your organization. Create content using multiple tools to figure out the one that best fits your development group's needs.

Common technology tools for the curriculum developer include:

- A computer with a reasonably fast processor, large hard drive, lots of RAM, and an above-average video card. Use a large display (20" or larger).
- Content creation software. If you are doing software or online demonstrations, consider packages that "record" your screen and mouse movements automatically. If you're going to continue working a lot in PowerPoint™, consider software that works as an "add-in".
- Video capture, editing, and conversion software. Invest in quality program, especially if you have to convert video from one format to another.
- Audio editing software and a quality microphone.
- An external hard drive dedicated to backing up your computer, and serving as an archive for older items. Also consider online backup services – if you're on the road, being able to retrieve critical files from a web service or FTP site can be a lifesaver.
- If developing content for online, be sure you have all the common browsers installed – Internet Explorer, Firefox, Chrome, Opera, and Safari at a minimum.
- If you will be doing a lot of graphic design work, consider acquiring and learning to use a tablet in addition to your mouse.

As outlined in *The Right Curriculum*, collaboration with peers and stakeholders is critical to developing solid classes. Many software packages used to develop class materials have tools built right in to

facilitate reviews and comments. For example, you can e-mail a PowerPoint™ presentation to multiple recipients and merge their revisions or comments back into the original document.

Web-based meeting services such as GoToMeeting, Connect Pro, or WebEx can be extremely useful. Whether brainstorming or editing documents in real-time, you can easily get feedback from a variety of users. Be sure you know the limitations of such services. Some services have trouble handling video unless it's converted to a specific format; others may only be able to import specific document types.

There are a variety of both free and low-cost services that allow collaboration. Often these come with file size limitations, or limits on the number of collaborators. In these cases, you are often limited to working within a particular developer's suite – such as Microsoft's Office™ applications or Adobe's Acrobat family.

Most curriculum developers that work with online course delivery are familiar with the sharable content object reference model (SCORM). Most development packages will publish SCORM-conformant content that can be easily uploaded into training / learning management systems. Many of these same development software packages are closely aligned with a specific training / learning management system. Publishing or playing content developed with something other than the developer's own training / learning management system can be frustrating if a project has been developed with a feature or tool that is proprietary to a single company.

## Technology in the Classroom

Instructors today have many more options available to them inside a traditional classroom.

### Internet Access

Virtually every classroom has internet access today, either through an Ethernet connection or Wi-Fi. If given the option, always elect for the Ethernet connection. If you plan to use connection within the classroom, be sure to test any links or sites prior to the session; many have tight security controls – you may not be able to access that critical YouTube™ video.

**Consider investing in a wireless “hotspot” available from most major wireless providers. The speed may be slightly slower than a traditional public Wi-Fi access point, but your security and reliability are improved. You also won't be competing with other users for bandwidth.**

### SMART™ Boards

Interactive boards (SMART™ boards) have found their way into many academic and corporate classrooms. These can be especially useful when discussing scenarios or brainstorming. Be sure you're familiar with the board's operation beforehand. Also be sure you use the correct markers - replacing a board's surface is expensive. Transfer your material to the Board's hosted PC rather than run from a CD, DVD, or thumb drive.

### Student PC Access / Technology

A lot of today's classrooms are either equipped with computers for student use, or have power and Ethernet outlets allowing students to use their own equipment. While for some classes this can be useful, it can also lead to distracted, unattentive students. Laptops, mobile phones, and tablets are excellent resources when used properly. Anticipate the technology students will bring to class, and plan for it.

### Video/Audio Recording

Today's smaller mobile devices, and the ready availability of cameras capable of capturing hours of audio and video force educators to develop policies covering audio/video recordings. Instructors can easily record sessions for the purpose of self-improvement. However, students may also record sessions with or without the knowledge of the instructor. Ensure that your policy is clearly communicated and deliver your classes in a professional, ethical manner.

You may have occasion to present educational programs in rooms where technology is highly integrated, such as a corporate board room. Often, these can have complex video and audio systems; room controls can include lighting and even window shades. Have someone familiar with the room and controls on hand to operate them.

**Remember, you rarely get in trouble for asking the owner of the equipment to operate or assist with operating complex or expensive audio-visual equipment.**

There are also many more educators operating in non-traditional environments. The curriculum developer should always be clear about the technological resources necessary to deliver a program. If a presentation has a three-minute video narrated video clip, be sure the educator knows to have proper speakers or audio equipment.

Educators living in today's technological world should ALWAYS keep these items handy:

- A surge-protected power strip
- 8" long cable (zip) ties
- AA, AAA, and 9V batteries (most pro wireless microphones use 9-volt batteries)
- Matte black 3" rigging tape (engineered to avoid peeling paint or leaving marks)
- A set of small powered speakers
- A USB mouse or presentation remote
- Minimum 6' Ethernet and USB printer cables
- 10' USB extension cable
- Video Cables: VGA and HDMI cables
- Audio Cables: mini-to-RCA (red & white) and mini-to-mini; if you teach in rooms with built-in audio systems consider adding appropriate patch cords

Building skill and competency is easier than ever, as well. Technology has made simulation and reality-based training evolutions practical and affordable, especially in industries such as health care. Advances

in curriculum development have also extended the ability to develop complex, interactive branching scenarios to most instructors. Whether delivered online or in a lab, complex scenarios and simulations allow students to develop problem-solving and critical thinking skills. If simulation tools or resources are cost-prohibitive, consider reaching out to others that could benefit from the same resource. Talk to academic institutions, or create a consortium to share in the costs.

## Data Management

Training data is valuable. The data helps you market your class offerings, sell books and materials, and ensure compliance. These tools tend to focus on the critical tasks of managing your training, communicating with stakeholders, and delivering training offerings

### Training / Learning Management Systems

There are a wide variety of systems in the marketplace today. Selecting the proper software is a critical decision. Generally, a system is employed to:

- Maintain records on students and classes taught
- Centralize and secure data
- Automate common tasks
- Allow delivery of online course or class offerings
- Administer exams and surveys

Good systems should manage the data on people, training activity, and resources. Systems should communicate information automatically to the appropriate parties. Information should be readily available through charts and reports. Solutions should allow delivery of content in support of classroom activity, or through self-paced classes.

### Data Capture

Capturing training data can be a difficult challenge, especially for those organizations who conduct training “on the job” or in environments that make traditional, paper-based recordkeeping difficult. For example, your organization is conducting multiple skill stations using multiple instructors. You might consider giving each student a bar coded identification, and assigning the lead instructor for each station a bar-code reader. When each student demonstrates competency, the instructor can scan the student’s identification. Some systems may allow you to badge in/badge out of training programs.

*TrainingForce Tip: TrainingForce has a wizard available to automate registration, attendance, and completion of training using the Symbol CS-1504 keychain scanner in conjunction with the Alternate ID field included as part of each individual’s profile.*

The use of mobile devices to capture student information is another paperless option. Whether logging on and simply entering attendance data during a class session or documenting skill proficiency on the job site, complex mobile devices such as phones and tablets can prove extremely useful to the training organization.

## Distributed Learning

Distributed learning through a variety of channels has gained acceptance. Research has shown that for many topics, well-developed online material is at least as effective as traditional face-to-face learning <sup>1</sup>. Technologies available to training organizations include hybrid classes (where there is a mix of instructor-led and self-paced learning), instructor-led webinars, self-paced e-learning (interactive online classes), and self-paced classes based on videos, audio presentations, or documents.

Each of these technologies has value, depending on your training organization's business model. These types of training often involve extensive development, or purchase from an external vendor. Some of the advantages of these types of technology include:

- **Consistency:** The content is consistent for each student, and delivery of the content is consistent across all students.
- **Accessibility:** The content is accessible from virtually any geographic location; elimination of most travel costs associated with delivery of training.
- **Assessment & Feedback:** Depending on method used, there are increased opportunities to assess the individual student's knowledge and obtain feedback on class effectiveness

Potential disadvantages of distributed learning technologies include:

- **Cost:** Programs can be expensive to develop or purchase initially; depending on technology can be expensive to update.
- **Timeliness:** Can be difficult to update, depending upon technologies used.
- **Learner Anxiety:** Not all learners are savvy in the use of technology; reliance on distributed learning places some learners at a significant disadvantage.

The training organization must take a hard look at the curriculum, the intended audience, and then apply technology that best suits the goal of the training program.

When using distributed learning technologies, you should consider a variety of factors that affect utilization.

### Technology Required

Always be mindful of the technology required for the end user to access your site. You can create outstanding, highly interactive web classes – but if your student is using a dial-up connection and an older computer, they will get extremely frustrated waiting for those killer graphics to load. Avoid using technology that requires the student to install software or special plug-ins.

### Collaboration Tools

No matter how inclusive or complete your distributed class seems to be, students will always have

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<sup>1</sup> Noe, R. A. (2010). *Employee Training & Development*. New York, NY: McGraw-Hill Irwin. p. 309

questions. Ensure that students know how to reach out to subject matter experts or instructors – and ensure those persons respond in an appropriate and timely manner.

*TrainingForce Tip: TrainingForce LaunchPad allows students to post reviews, as well as post questions and responses in discussion threads related to each course.*

#### Return on Investment

Distributed learning programs can be expensive to develop and implement, the initial cost can seem daunting. Being able to prove that your training has a positive return on investment is a key concern. Invest in technology or resources that can be used repeatedly throughout the organization. For example, don't invest in a lengthy, expensive video introduction for a single program; instead, consider a shorter video that can be used as a lead-in for multiple programs.

**Avoid purchasing an expensive resource for a single purpose whenever possible; instead look for similar resources that can be repurposed or reused through a variety of training programs.**

*TrainingForce Tip: TrainingForce Manager allows you to assign values to specific resources and improve your measurement of your organizations return on investment.*

## **In Closing**

Technology is a major factor in today's training world. Identify and implement technologies that support the growth and development of the student and of the organization's business goals, while avoiding those technologies that are limited in scope or fail to add measurable value.