

# Training and Education

## Best Color Training Practices

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Career advancement is one of the driving forces behind most adult education and learning in the field of color reproduction and color technology. One proven approach to adult education in which I subscribe is Instructional System Design (ISD). This systems approach for technical training translates into something called performance-based learning.

What is performance-based learning? Simply put, performance-based learning incorporates training methods that provide demonstrated results. The purpose of performance-based learning is to influence a person to learn specific methods and techniques and, consequently, he or she will then change his or her behavior. A skilled instructor armed with a well-designed and developed training plan is able to convert a student's learning into new behavior. The demonstrated results are that the student will become more productive in the workplace.

A systems approach is the link between adult education and color learning. Performance-learning techniques blended with color reproduction methods and color technologies enable high-quality color training.

To get a snapshot of how performance-based color learning works, I have broken the methods down into six topics: (1) learning prerequisites, (2) assessment, (3) pre-learning, (4) the learning session, (5) post-learning, (6) and evaluations.

### (1) Learning Prerequisites

The learning prerequisites are general guidelines to ensure that potential stakeholders, such as instructors, students (also known as learners), and managers that are sending an employee for training, set realistic expectations, and understand his or her role in the potential training process.

**Training objectives need to agree with business goals.** Learners and managers need to make sure that the class objectives agree with business goals. For example, if a pressman needs to learn how to use a densitometer, it does not make sense for him or her to request a class about how to use Photoshop. But if, for example, a designer wants to learn soft-proofing, a Photoshop color management course is the right choice.

**Ask questions before the training.** To determine if a class is suitable to meet your objectives, ask and answer the following questions:

- What is the purpose of the class?
- What does the training cost?
- How much is the overall cost for the class and travel.

Find out about the class history from the training provider:

- How many times has this class been taught?
- How many times has this instructor taught this exact class?

- Are there class reviews from other students?
- Can I review the class syllabus and step-by-step exercises?

There are telltale signs if the class is a risky venture or might be a waste of your valuable time and resources. For example, ask if this class is being offered for the first time. If so, a flag should go up. The next question should be, "have you run a pilot session to work out the bugs?" If the training is being run the first time without a pilot session, common sense says wait until the bugs are worked out and reviews are available. That is, of course, if you can wait! And if the course content appears weak or disorganized, it is a potential problem.

Also, if an initial phone call or email experience with the training provider is not satisfactory, because it did not illicit clear and honest answers to these questions, you might want to consider another class or another training provider.

**Everyone needs to be prepared.** Instructors, learners, and employers need to be prepared before any learning takes place.

From the teaching side:

- The training facility needs to be comfortable and all technology needs to work. In some cases an instructor has to arrive the day before to be sure everything is working.

- Instructors should always have a lesson plan!
- Before class begins, instructors need to rehearse demonstrations.
- If something goes wrong with technology, the instructor needs to have a plan to recover.
- Instructors need to make sure the class starts and ends on time. No exceptions!
  - From the learning side:
- Employers need to have a plan to manage their business while employees are at a training class, to avoid interrupting the employee during a class.
- Students need to show up on time, with the right attitude, and be ready to learn.
- Students might want to bring problem files, proofs, and images to the class.

**The Instructor.** Having the appropriate instructor is a critical element of good color or technology training. An instructor needs to have the right mix of technical ability, color reproduction knowledge, including experience with specific color technologies, and good teaching skills.

Be aware, some subject matter experts (SME) might not be good instructors. While a SME might be technically capable, a skilled color trainer must have the right teaching vocabulary for an audience. The instructor needs to engage the learner, encourage students to ask questions, and use proven learning methods that maximize the learner's abilities. This approach allows the learner to convert the class lessons into clear demonstrated results.

### (2) Assess the Situation

Everyone, including instructors, learners, and managers, need to be aware that an initial assessment is critical. An accurate assessment ensures two things. (1) That training is necessary. (2) If training is required, the

assessment will define the scope of the potential training before the training session.

Here is an example of a poor assessment: A manager is getting faster computers that are being integrated into a retouching workflow. The new computers are using the same operating system as the old computers. A new version of Photoshop is installed from scratch to upgrade from Photoshop version CS1 to version CS2. The manager assumed his experienced retouchers would work without any technical problems, so he anticipated that they would not require training.

The retouchers were slowed down dramatically because they did not have any of the Actions transferred from the older computers, and the old computers were not available. This meant that since the Actions from CS1 were not available, each retoucher had to create new Actions as they worked on production. This slowed down the production process.

After a week of lost production, the manager's conclusion was that the retouchers required training for the new version of Photoshop. After the manager contacted a prospective instructor, the instructor did an assessment. The instructor's evaluation was to initially use the previously created Photoshop CS1 Actions, but they were unavailable. So it was necessary to create new Photoshop Actions and test them on each computer. The time estimate to get all of the Photoshop Actions created, tested, and placed on the new computers was eight hours.

In this scenario, there was no training required, only a consultation by the instructor. This new assessment suggested that a lead retoucher needed to create the right Photoshop Actions, test them by running production, and then install them on all the new computers. This proved effective. A better initial assessment would have avoided lost production time.

### (3) Pre-Learning

Getting a student better prepared before he or she comes to a training session is referred to as pre-instructional learning, or pre-learning. The purpose of pre-learning is to introduce a student to new products, new vocabulary, new concepts, and processes before the training. This enables learners to have more success during and after the class. In some cases an instructor uses the pre-learning experience to access the learner's skill.

Pre-learning tools can range from: custom notes sent to the student before the training, product software with custom notes (such as a demo software download of the product before the session), webinars, computer-based training (CBT), Web-based training (WBT), books, and videos.

The right type of pre-learning can ultimately save the client on start-up expenses and can help a vendor save on support costs, because students have moved up the learning curve earlier in the learning process.

### (4) The Learning Session

#### **Classroom management guidelines.**

Good classroom management requires these actions to be taken before and during the class:

- Instructors have to be flexible, but they need to stick to the basic training plan.
- Instructors need to provide easy-to-understand step-by-step notes and or exercises.
- Instructors need to make time for question and answers.
- Students require time to take notes to reinforce what he or she has learned.
- Students need to be aware and respectful of other students, and if they have questions that are outside the scope of the class, they should wait until a break to ask the question.

**Discuss new vocabulary and process overview.** Covering pertinent vocabulary and having the process defined with good process overviews are like having a good road map when navigating new terrain. They set the stage for high-quality learning.

At the beginning of a formal training session, the instructor needs to review old and new terminology concerning color reproduction and color technology. This might mean discussing new vocabulary for a few minutes, or perhaps the whole day.

And during any technical training, the instructor needs to provide overviews of color reproduction and color technology processes.

**Teach from the fundamentals.** Even if the class is an advanced session, any color-learning session should provide basic information about color and related technologies. This might mean that an instructor has to spend only five or ten minutes covering basic groundwork to be sure that the learners have a firm understanding of the subject's foundation. And if the learners are not prepared, then the instructor needs to take the appropriate action so the class can be successful before moving on to more intermediate topics.

**Break down difficult information.** It is essential to have a good instructional plan delivered by a skilled instructor who can present challenging material in small pieces that are easy to comprehend. A well-designed training program will break down difficult information and provide easy-to-use notes and step-by-step instructions for difficult topics. This approach puts the learner in a comfortable position that translates into successful learning.

An example of a best practice is a RIP training session that shows how to use ICC profiles in a RIP workflow. Fundamentally, ICC profiles work in pairs. That is, you need a source and a destination profile. The instructor then needs to take the time to demonstrate where the source and destination pro-

file reside in a RIP, using the RIP vendor's terminology. Using this approach early in a RIP training session creates a foundation that enables him or her to clearly understand the fundamentals of using ICC profiles in a RIP and developing those ideas to be used in intermediate color-proofing situations.

**Teach the mechanics of the process.** In a number of cases, using color applications and imaging technology is not that user-friendly. Learning how to mechanically navigate a software application or work with hardware is essential. A good class will provide exercises with step-by-step instructions for using a specific application. Once a student masters how to navigate through a color process, he or she can focus on learning other aspects of the process.

An example of this approach is for retouching images in Photoshop, where it is beneficial to learn the mechanics of changing the brush size and its opacity when retouching. Of course, one way to change brush size and opacity is to use the mouse. But a more efficient way to work is to use keyboard shortcuts. By learning the mechanics of keyboard shortcuts, an end-user can use one hand to apply the keyboard shortcuts and the other hand to keep the mouse in the same position while retouching an image. In this example, if the end-user understands the mechanics of Photoshop brushes, navigating with brushes becomes a secondary concern. The retoucher then becomes more focused on color retouching, and he or she then has fewer distractions and becomes more efficient.

### **Practice! Practice! Practice!**

Of course, the best way to learn something technical is to practice. Therefore, the instructor needs to make time for that in the class plan. If a student is struggling to learn during the class, he or she needs to take time to practice. If necessary, ask the instructor for help or use step-by-step notes to reinforce the imaging methods or tech-

niques. The purpose of the practice is to gain experience by trial-and-error testing, until the student understands the process.

### **(5) Post-Learning**

Post-instructional learning, or post-learning, takes place after the learner has returned to his or her workplace. The post-learning strategy is two-fold. First, the learner has to be willing to take the time to reinforce what he or she has learned. Second, the employer has to give the employee time to reinforce the learning.

Some people might say that post-learning is an ongoing process—and it is. However, a well-prepared training plan will have a post-learning strategy that enables the learner to reinforce what has been taught after the student returns to his or her business. Post-learning is often accomplished by using step-by-step notes that were provided in the classroom. However, other post-learning methods can include: online forums, webinars, CBT, WBT, on-site consulting, or a follow-up with a more advance training session.

### **(6) Evaluation**

A learning evaluation involves more than a form that is filled out at the end of a class that indicates the instructor performance, the comfort of the facility, and student feedback.

One purpose of an evaluation is to provide measure of what the student learned. Feedback allows the learner as well as the instructor (and, in some cases, the employer) a skill or concept was learned.

There are numerous ways to evaluate learners during and after training. One common way is to use a written test that is a multiple-choice or essay format. However, in graphic arts training scenarios, post-course testing seems to be the exception and not the rule. Other evaluation methods include oral feedback during a training session, specific results from a hands-on project, or

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the outcome of the learner being able to produce a high-quality product on the production line.

A critical point about evaluation is that the test questions must agree with the course's goals and learning objectives. For example, an advanced class on color management had learning objectives regarding ICC profiling applications, instruments, and process control. Final exam questions included topics about traditional camera methods. While this was an advanced class, those topics were not mentioned at any point in the learning prerequisites, pre-learning, or the training session. Because this test was poorly designed, half the class failed the exam.

This example illustrates that the written evaluation did not have proper agreement between the class's learning objectives. If the written evaluation had been designed better, it would have proved to be a valuable measure.

When it comes to best color practices, if a business is serious about training and learning, well-designed evaluation is crucial to measure if the training was effective.

### The Bottom Line

Training providers who use performance-learning principles might not employ the same vocabulary I have used in this article. The best way to find out if performance learning is part of the curriculum is to contact the potential training provider and start asking questions about how they approach, implement, and facilitate color training.

If you think a training session does not subscribe to enough performance-learning principles, you need to decide whether to attend that session or find another class. If you have asked the right preliminary questions and the session does not meet these expectations, you might be forced to complain and ask for a refund.

Performance-based learning techniques provide results-oriented color training. This approach is based on proven training principles, practical experience, and demonstrated results. By following these ground rules presented in this article for teaching and learning color reproduction methods, and for using color technology, instructors and learners will have productive and successful training experience.

*To learn more about improving your training practices, I suggest two books from the American Society of Training and Development (ASTD):*

*ISD from the Ground Up*, by Chuck Hodell. ISBN 1-56286-143-3.

*Telling Ain't Training*, by Harold D. Stolovitch and Erica J. Keep. ISBN 978-1-56286-328-9.

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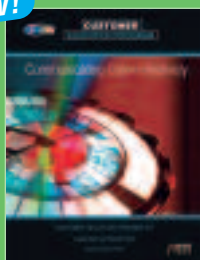


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