

# Does Your Instruction Rate 5 Stars

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## Introduction



## THE 5 STARS

## Introduction

It was that time of year again when I had agreed to be a judge for the Multimedia & Internet Training Awards. I had received five instructional products to judge. I had also been given the *Criteria for Evaluating Programs*.

The products scored high on interactivity, navigation, motivational components, use of media, aesthetics and tone but I was uncomfortable because the courses were not organized in such a way that users will learn. In short, the production quality was outstanding, the appearance of the products was appealing, but they did not teach. What good is a score of 8 out of 10 if the missing criterion is the instructional effectiveness of the product?

**If an instructional product does not teach, it has no value!**

(Jim L'Allier)

### CRITERIA FOR EVALUATING PROGRAMS

1. Content
  - ◆ Right amount and quality of information.
  - ◆ Content meets the defined objectives
  - ◆ Content organization
2. Instructional Design. Course organized in such a way that users will learn
  - ◆ Course objectives clearly defined & tangible
  - ◆ Chunking of information
  - ◆ Job aids/performance support
3. Interactivity
  - ◆ User engaged through the opportunity for their input
  - ◆ Amount of interactivity
  - ◆ Quality of interactivity.
4. Navigation
  - ◆ Users can determine their own course through the program
  - ◆ An exit option always available
  - ◆ A course map always accessible
  - ◆ Appropriate use of icons and/or clear labels so that users don't have to read excessively to determine program options.
  - ◆ Clarity of directions
  - ◆ Adequacy of navigation controls
  - ◆ Branching to other topics doesn't create a sense of being 'lost'
5. Motivational Components
  - ◆ Program engages the user through novelty, humor, game elements, testing, adventure, unique content, surprise elements, etc.
  - ◆ The course follows a metaphor (golf, Doom ,etc.)
  - ◆ Metaphor effectively used to help the learning process
  - ◆ Progress indicator

6. Use of Media
  - ◆ Program effectively and appropriately employs: video, audio (voice, music, sound effects), animation, graphics, special visual effects.
7. Evaluation
  - ◆ Mastery of a section required before proceeding to later sections
  - ◆ Section quizzes used
  - ◆ Final exam
  - ◆ Quality of the testing modules
  - ◆ Testing is relevant to the real world performance objectives
  - ◆ Appropriateness and timeliness of feedback
8. Aesthetics
  - ◆ Program attractive and appealing to the eye and ear
  - ◆ Design of the interface is simple, uncluttered, symmetry of objects such as headings, menu bar, etc. Screens do not look too busy.
9. Record Keeping
  - ◆ Student performance data recorded, such as time to complete, question analyses, and final scores
  - ◆ Data forwarded to course manager automatically
10. Tone
  - ◆ Program designed for intended audience
  - ◆ Program avoids being condescending, trite, etc.

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Are all of these criteria of equal importance? What is the precedence among these criteria? If a product is **not** organized in such a way that users will learn, then what difference does it make if users can determine their own course through the program, if the program engages the user through novelty, humor or game elements, or if the program is attractive and appealing?

When a course is organized in a way that users will learn, how is it organized? What should it contain? How can you tell if there is the right amount and quality of information?

What is appropriate instructional design? Surely it is more than clearly defined and tangible course objectives? Surely it is more than chunking of information? It must be more than the inclusion of job aids or performance support? What is quality interactivity? What is appropriate practice or application of skills?

How can you judge the instructional effectiveness of an instructional product? How can you tell if a product will teach? Are the examples of course evaluation criteria included here adequate? Appropriate? Complete? Do they place too much emphasis on the surface appearance of the instruction but miss the underlying instructional design that is critical to student learning?

## An Exercise

We are frequently told that we live in the information age. The rise of the Internet is one of the wonders of the modern world. The click of a button will enable us to reach information on almost any subject. Often this information is labeled instruction. Many of these sources are called courses. However, merely labeling a web-site instruction does not make it so. Charging tuition, calling it a course, or even asking a few multiple-choice questions does not turn information into instruction.

### **Information is not Instruction!**

What is instruction? Clearly it involves information. But it also involves much more.

The Internet is loaded with thousands of courses. Take a brief look through a magazine like *Online Learning*. Make a list of the websites that purport to offer instruction. Go to a few of these websites and take the sample course that most of them offer.

What did you find? Are the courses effective? Do they teach the skills that they claim to teach?

## A Case Study

Here is what I found. I went to a well-known site that offers hundreds of courses by many different authors and different companies. I'm sure that the courses offered on this site vary from very effective courses to courses that do not teach. It would seem reasonable to assume that a sample course must represent one of the better courses that is offered or else the company needs help with their marketing strategy. If the company puts forth a poor course it would discourage the potential learner from subscribing to the courses offered.

The sample course was *Elements of Market Strategy*. The displays were very attractive, the screen design was pleasing, and the navigation was easy to use.

A typical screen presents a brief piece of text, an attractive graphic and the narrator reads the text on the screen. For example, one screen contained the following information:

Define Marketing

Marketing is a word you hear or use almost daily.

You probably know several ways the term is used. As you focus on writing a strategic marketing plan, be sure your team agrees on some common definitions, so you are all clear about what the plan is to accomplish. How would you define marketing?

From time to time there are inserted questions such as the following:

Because competition changes the market so quickly, the smart move is to have an ongoing process in your business for developing your market strategy for each product or service.

Choose the statement below that's true.

\_\_\_ Strategic marketing planning is primarily for larger companies.

\_\_\_ Every business that wants to succeed should make marketing strategy a continuous process.

Mastery tests in the course require the student to answer five multiple choice or true false questions that require the student to remember information that was presented.

One online service evaluates courseware products for potential learners: Lguide.com "Your Guide to e-learning." Their criteria are in the accompanying box. I checked out this course to see their evaluation. Following are some excerpts.

### Course Evaluation

#### Content

- ◆ Does the course provide accurate, useful, complete, and well organized information?
- ◆ Are the information and objectives appropriate for the intended audience?
- ◆ Does the course provide additional resources and tools?

#### Design & Delivery

- ◆ Is the course optimized for the Web? Does it function properly?
- ◆ Do text, graphics, audio, examples, and interactivity enhance learning?
- ◆ Can users practice or apply skills as they learn them in simulations or scenarios?
- ◆ Can users customize the course through assessments, speeding, or slowing?
- ◆ Are assessments relevant, testing central skills or concepts?
- ◆ Does the course support varied learning styles?
- ◆ Is the navigation clear, intuitive, and easy to use?

#### Value

- ◆ Is the course better than alternatives?
- ◆ Is the course worth the time and money?
- ◆ For whom is the course more or less valuable?

[www.onlinelearningguide.com](http://www.onlinelearningguide.com)

Their evaluation described the course and listed the modules.

Under content they state:

"The information provided in the course is clear, but overall the lesson fails to engage. Although the concepts involved in a marketing strategy are covered, the course fails to give good, concrete steps and detail for when you actually sit down to make a strategic marketing plan. The result is limited retention and limited applicability."

Under Design and delivery they state:

"Interactivity is limited to learner assessments, which include feedback. Assessments are offered before, during, and following lesson units."

Under value they state:

"The course is fair value for managers, who need an introduction to marketing strategy."

They give the course 2 1/2 stars on their 5 star rating system.

How do we know if the course teaches? The Lguide evaluation provides a caution but does not tell us whether the course will teach.

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What is my evaluation?

The course presents information-about marketing. However, there are no examples for the concepts presented. The assessment (uncritically mentioned by Lguide) is merely a few remember-information questions. Following the instruction it is unlikely that the student will be able to recognize new examples of any of the concepts defined since no examples were presented during the course and there was no practice in identifying examples of the concepts taught. In short, the material presents some information about marketing but it does not teach.

How does this course rate on our five stars?

This course gets **NO STARS**:

There is **no problem** to solve,  
there is **no activation** of previous knowledge or experience,  
there is **no demonstration** of the skills taught only information,  
there is **no application** of the skills taught only remembering information,

and there is **no integration** of the skill taught into the learner's on-the-job performance.

No stars for *Elements of Market Strategy*.

Is this an unusual case? Take a look for yourself and you decide. Much of the so-called instruction available on the Internet DOES NOT TEACH. Much of the instruction gets no stars for effective instruction.

\* \* \* \* \*

It is this situation and my questions about what is necessary for effective instruction that prompted the author to provide this book. I'm concerned that too much so-called instruction *is not*. We have way too much information that is labeled instruction when it is not.

### **Information is not Instruction.**

What is effective instruction? How can you be sure that the instructional products that you select really teach?

Are you considering the acquisition or development of interactive, multimedia, web-based courseware to meet your training needs? Beware! Too many courseware vendors are underprepared in instructional design. It is not necessary to be certified to hang out a shingle and offer your services as a courseware developer. Neither a clever name, an impressive title, experience in a subject matter, experience in computer graphics, nor experience in computer programming substitute for expertise in the development of consistent instructional strategies that teach.

However, you can protect yourself. You can learn to look beneath sales hype to the underlying effectiveness of a given instructional product. You can acquire the skill necessary to look beneath the production quality of the product to the underlying instructional strategies and determine if the product will really teach.

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When I travel I enjoy staying in a 5-star hotel. The hosts in such establishments have learned what is required to help a guest be comfortable. They know the little things that make travel a pleasure instead of drudgery. I can sleep in a one-star hotel, but often I find myself unrested and miserable the next day. It isn't the cost of a 5-star hotel that makes it better. I've often paid a lot of money for less than one-star service. It isn't the size of the marquee or the waterfall in the lobby that makes it a 5-star facility. It is a 5-star establishment because the staff knows how to provide all the little details that make rest and relaxation pleasurable.

Like a Las Vegas hotel, there is a lot of instruction that has a 5-star surface appearance but not even one-star effectiveness underneath. Just

like I can get by in a one-star hotel, students show a remarkable ability to endure one-star instruction. Sleeping in a one-star hotel often leaves you unrested, learning from one-star instruction often makes it difficult or impossible for students to acquire the skills desired to make them more productive.

What is five-star instruction?

How can you be sure that an instructional product will really teach?

Can you have 5-star instruction without a platinum-card price?

Industry is spending billions of dollars for education and training. Why? Because, they expect this training to increase quality performance, quality products, and enable more efficient and effective performance on the part of their students or employees?

If the instructional products you select are to give you a good return on your training dollar, then it is critical that you have the skill to judge the instructional effectiveness of an instructional product. Merely asking your vender is insufficient. Ratings based primarily on production value and appearance do little to inform you about the instructional quality of a product. You need the skill to look under the hood to observe those instructional attributes that characterize really effective instruction.

This book you will help you acquire the skill to make these critical judgements.

In this book we have organized effective instructional design around five ideas:

**problems** to solve,

**activation** of previous experience,

**demonstration** of the skill to be learned,

**application** of the skill being learned,

and **integration** of the skill into daily activities.

First, effective instruction involves learning to solve real-world **problems**. Learning goals that make sense to a student are those that enable the him or her to acquire the knowledge and skill necessary to solve life's problems. Too often the instruction is detached from the real-world problems for which the knowledge or skill is relevant. Instruction that is detached from its real-world application is ineffective instruction.

Second, effective instruction must start with what the student already knows or is already able to do. The first phase of effective instruction

must be the **activation of** prior experience and learning. The new skill is then built on the foundation of previous learning.

Third, effective instruction involves **demonstration**. It is not sufficient to merely tell the student information about the subject. Effective instruction must show the student. Show me! Show me how to carry out the procedure. Show me what happens as a result of this process. Far too much instruction is information-about rather than demonstration.

Forth, effective instruction involves **application**. No one would expect an athlete or musician to perform without hours of practice. Yet, we seem to think that when it comes to cognitive skills that such practice is unnecessary. Applying what is learned by means of appropriate practice is the single most neglected aspect of effective instruction. Too often the only practice available is answering a few multiple-choice questions.

Fifth, effective instruction involves **integration** of the newly acquired knowledge and skills into the everyday activities of the learner. Learning is not complete until the student can demonstrate what they have learned in real life not just on a test. New skills are integrated when the student defends the knowledge. New skills are integrated when the learner finds new and creative ways to use these skills to solve life's problems.

## What are the 5 Stars

### ★ Problem

Learning is facilitated when the learner ...

- ... is engaged in solving a real-world problem.
- ... is engaged at the problem or task level not just the operation or action level.
- ... solves a progression of problems.
- ... is guided to an explicit comparison of problems.

### ★ Activation

Learning is facilitated when the learner

- ... is directed to recall, relate, describe, or apply knowledge from relevant past experience that can be used as a foundation for the new knowledge.
- ... is provided relevant experience that can be used as a foundation for the new knowledge.

## ★ **Demonstration**

Learning is facilitated when

- ... when the learner is shown rather than merely told.
- ... the demonstration is consistent with the learning goal.
- ... the learner is directed to relevant information.
- ... the learner is shown multiple representations.
- ... the learner is directed to explicitly compare alternative representations.
- ... the media play a relevant instructional role.

## ★ **Application**

Learning is facilitated when

- ... the learner is required to use his or her new knowledge to solve problems.
- ... this problem solving activity is consistent with the learning goal.
- ... the learner is shown how to detect and correct errors.
- ... the learner is guided in problem solving by appropriate coaching that is gradually withdrawn.

## ★ **Integration**

Learning is facilitated when the learner

- ... can demonstrate his or her new knowledge or skill.
- ... can reflect-on, discuss, and defend his or her new knowledge or skill.
- ... can create, invent, and explore new and personal ways to use his or her new knowledge or skill.

