Breakthroughs in... eLearning Design

When Trainers Take Control and Learners Really Learn

By

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Introduction

Many eLearning programs bore the learner and cause them to feel turned-off from the eLearning context. If eLearning continues to put learners to sleep, a highly valuable medium for learning will fade out of existence. Business leaders will stop supporting self-paced eLearning initiatives as they will not receive a return on investment in terms of business results.

The solution is finding the development 'keys' to excellent self-paced eLearning that keeps the learner absorbed and learning. Taking on that challenge, let's start with criteria for eLearning excellence.

Every excellent eLearning program needs to satisfy two basic criteria:

- Keeping the learner involved enough in the online course so that the opportunity for learning is maintained.
- Presenting the learning in such a way that the learner not only learns but carries out the learning in a performance context, thus producing results.

In other words, to be judged excellent, an eLearning program needs to produce real world results in terms of the learner's behavior change tied into some business, process improvement or personal life criteria.

This paper will highlight a number of instructional design strategies that will produce excellent eLearning programs.

Definition - Learning is defined as any relatively permanent change in the brain/mind system that produces changes in thinking, feeling and acting.

Instructional Design Strategies for eLearning

Motivation

In any type of learning experience, the motivation of the learner contributes to 50% of the results (Nevid. J., 2003). In other words, two people of equal intelligence will differ wildly in their learning results based on their motivation. How can eLearning programs help to motivate the learner, given that many eLearning courses are abandoned because they are boring or don't engage the learner?

- Stories and Models – Adding in success stories and models at the beginning of the program motivates learners and convinces them that success is possible. Stories of people who have had similar issues as the learner and overcome them give hope to the learner.
- Defining the Win – People learn best when they know what the end goal or outcome or expected business result is, have had a chance to define that in their own words, and know what the learning or program benefits are. Most eLearning programs talk about objectives (items to satisfy on a test) but do not stimulate the learner to define how this learning will be useful in their own business or personal life. A well-designed eLearning program allows the learner to state the outcome, business results, and benefits they will get from the learning. Doing this will help them stay motivated.
- Rewards – Some people but not all will learn faster and better when there is a reward at the end. It is a good idea to prompt the learner to define an internal reward for successful learning, such as increased competence, rather than an external reward. While external rewards can work, they do not promote the ability to self-motivate through time.

Self-Efficacy

Self-efficacy, a term made popular by the psychologist Albert Bandura, refers to our beliefs that we will succeed in a particular task or not. The higher the self-efficacy, the more likely the individual will stick to the task in the face of obstacles and negative feedback and succeed. How can eLearning programs help learners with their self-efficacy?

- Accessing Prior Knowledge – Presenting case studies and self-assessments at the beginning of an eLearning course reinforces what the learners already know about the subject, usually resulting in more self-confidence and self-efficacy. Accessing prior knowledge also sets up the brain for easier transfer of new information into long-term memory.
- Virtual Coach – Even if the learner does not have much prior knowledge, they can feel more confident when supported by messages from a Virtual Coach such as "Many people like you have started this course feeling a little overwhelmed. Hang in there. This course was designed to feed you new materials in small bites so that the learning will come easy. You can do it!"
- Early Successes – There is nothing that builds confidence more than early successes. In eLearning, the way to build in early successes is to present some learning that is easy to master and gradually increase the level of detail and difficulty.
- Persistence Strategies – A Virtual Coach can help learners with persistence strategies. Persistence strategies are ways of keeping the learner focused on the goal. Persistence strategies include: frequently reminding the learner of the goal, getting the learner to restate the benefits of learning, summarizing what has already been learned, getting the learner to write about what will happen if they do or don't succeed, and visualizing having reached the goal.

Outcomes not Objectives

Unfortunately much eLearning (and classroom learning) directs the learner to pass a multiple choice test at the end of the learning. There are a number of problems with that type of measurement. First, multiple choice tests are recognition tests and they actually access different parts of the brain than recall tests. A learner might think they know it because they do well in a recognition test, but not be actually able to use the learned materials in a needed context on the job. Second, testing for objectives does not tie into reaching business results, our definition of excellent eLearning. It might be useful to test for objectives to make sure the learner has acquired some basic knowledge. However, to reach a specific business or personal result, the learner needs to know he/she is headed in that direction in the first place, and needs to practice, practice, practice by applying the learning in appropriate contexts. No test for objectives will make up for a lack of practice in applying the learning. Finally often the learner must see the results in his or her performance to know that learning has taken place.

- Start from Results – To develop an eLearning course based on outcomes or results, start by defining that result. Ask yourself "What are the results I want? What specifically must my learners believe, think, feel, say or do to produce those results? How will I measure success?" Once you have answered those questions, think about what sequence of learning and practice will produce the result you want.
- Work Backwards – One method for defining the content of your results-driven eLearning course to work backward. First, think about the result you want, then take one step back in your mind and ask "What must my learners need to have learned at this point in order to have reached the result?" Once you write down your answer, take one step backward from there and ask the same question. Continue in this way until you have produced a sequenced set of 'chunks' of learning.

Organization

To be excellent, an eLearning course must both capture the interest of the learner and bring about a real world result on the job or in personal life. The 4Ps framework for organizing courses is a good start at satisfying those two requirements for eLearning excellence.

- 4Ps – The 4Ps refer to Prepare, Present, Practice and Perform. In most eLearning courses, there is a lot of presenting of material and very little preparing the mind for the learning, practicing of the materials in various contexts or tracking carrying out the learning into performance. According to Dave Meier of the Accelerated Learning Handbook, research demonstrates that a learning program needs equal amounts of all 4Ps to be maximally effective.
- Details:
  - P1 – Prepare: To prepare the mind for eLearning, it is important to: access prior knowledge on the subject, motivate the learner through case studies and stories, present an overview of what is to come, and stimulate the learner's mind by defining the desired outcome or result of the learning as applied in performance
  - P2 – Present: Presenting content to learners so that they will learn to the point of results benefits greatly from serving up the content in multiple forms. Presenting the content in auditory, text, image and graphic forms is superior to presenting via a single mode.
  - P3 – Practice: For over one hundred years, psychologists have researched learning and performance. All findings indicate that practice is critical to learning, and the more practice the better.
  - P4 – Perform: Many eLearning programs stop short of helping the learner apply his/her learnings in a performance setting. Yet there are many ways one can help in that way.

You can have the learner define his performance outcome and visualize the results, add an action plan and a journal to the learning experience, send assignments after the course is over, and coach through the transfer into performance.

One Size Does Not Fit All

At PeakSkills Learning Systems, we train trainers, coaches and instructional designers in eLearning course design using the PeakSkills Learning Method and our eLearning platform (Learning Content Management System/Learning Management System). Over the years we have come to recognize that 'one size does not fit all'. So to appropriately coach each student through their eLearning course design and development, we created a taxonomy of eLearning types, including one we labeled 'Human Transformational eLearning.' Following this taxonomy will help make your courses appropriate to the expected results. Keep in mind that many courses actually need to be a combination of different types.

- Persuasive/Informational eLearning - Type of eLearning where information is presented to recipients to be absorbed such as in marketing campaigns and commercials. This type of eLearning works based on the principle of repetition. The more often the brand or commercial is repeated, the more likely the information will get stored in the learner's long-term memory or human database.
- Procedural eLearning - Type of eLearning where the learner masters a specific procedure, such as a way of filling out a form, that gets repeated over and over. To be successful, this type of eLearning must closely match the procedure back at the workplace.
- Process Flow eLearning - Type of eLearning where the learner learns a general set of steps that can be applied in many different situations which are variations of each other. Here we are talking about a sales process, a managerial process, a performance appraisal process, etc. The success of this type of eLearning depends on practicing each step under multiple conditions.
- Principle Based Problem-Solving eLearning - Type of eLearning where the learner learns a set of principles and then practices applying them in multiple problem-solving situations. Examples include training managers, lawyers, and other professionals in a body of knowledge and practice.
- Human Transformational eLearning - Type of eLearning where the filters that determine what and how we store information in our long-term memory or human database are altered. These filters represent our beliefs that determine what gets paid attention to, how information gets interpreted and what gets pulled out of our human database. Example: pessimists who believe in the 'worst possible' remember negative childhood memories far more than positive memories. Once they change their mindset filters and become more positive, they remember different and far more positive memories than they had before.

Coherence

Coherence is the overall thread from page to page that holds the eLearning program together. Without it, the learner is lost in bits and pieces of information.

- Visual Thread – Making the graphic design and fonts consistent from page to page increases a sense of coherence.
- Flow from Page to Page – In addition to design and fonts, the information needs somehow to be carried forward from page to page. One way is to present an agenda list of all your lessons in the course as the title page for each lesson and mark the lesson you are up to. Another strategy is to embed comments about the prior pages in the new page, or about the next page in the prior page.
- Avoid Cognitive Overload – When too much information is presented on an eLearning page, it is difficult for the learner to select what to attend to. This phenomenon is called cognitive overload and should be avoided in eLearning courses.
- Command Attention – Without direction, our minds can wander all over without making the important content primary. Make sure you command attention by using headers, fonts, highlights and arrows to direct the learner's attention.

Intensity/Interest

Making the programs interesting enough to draw in the learner is a challenge. I have seen extremely expensive eLearning programs as well as home grown types absorb the learner. I have also seen learners abandon both types quickly. What is the difference?

- Visual Appeal – good design means a balance of full and empty space on the page and enough design interest to keep one's eyes moving around without being too busy
- Cognitive Appeal – perhaps the most important factor. The material has to be cognitively interesting to the learner. It has to promise to help them solve a problem or succeed at something they could not do before the eLearning process.
- Cognitive Wondering – The very best programs are like mystery programs. They keep the learner wondering and eager for the next piece of learning.

Feedback

In any learning context, feedback tells learners that they are succeeding. It tells them that there is room for improvement. It motivates them to continue as they notice their own progress. Feedback does not have to be 'right' or 'wrong'. It is more important to tell learners what they are doing that is working and what is not, as well as how to improve. A good idea is to get learners to think of feedback as 'opportunities for improvement'.

Methods of giving feedback:

- Standard assessments
- Feedback on workbook pages
- Self-assessments
- Virtual coach emails and comments
- Feedback on simulations, and problem-solving situations
- Pop-up hints

Establishing Mental Representations

What is actually stored in the brain when we learn are 'mental representations' or maps of the to-be-learned content. The learner actually creates these mental representations as he/she transfers information from short-term to long-term memory. Research shows that the more different representations of materials presented to the learner, the richer and more complete will be the mental representations and the better the learning. Thus it is important to present material as text, audio, images, numerical representations, tables, metaphors, etc.

Interactivity

Interactive activities guide the learner to think through content making the transfer to long-term memory easier. Interactive activities can include fill in the blanks, workbooks, journals, skills drills exercises, sentence stems, prioritizing and many others. The key is to keep the mind active, facilitating the transfer to long-term memory.

Retrieval Cues

Retrieval cues are cues presented to the learner during the learning experience that will also be presented later in the performance situation. If these retrieval cues get stored during learning with the learning content, they will help the learner to access the content during performance. Example: You can have the learner learn a procedure and use a photo of the room where the procedure will be performed as background in the eLearning program. The room context will serve as a retrieval cue later back on the job.

Stimulating Learning and Thinking

Learning takes place by the transfer of information held in short-term memory into 'mental representations' in long-term memory in such a way as to be appropriately retrieved later on.

- Kolb Learning Cycle – One way to stimulate thinking in an eLearning context is to use the questions from the Kolb Learning Cycle as you move the learner through the learning experience.
    - To get the learner to reflect, ask such questions as "What did you learn so far? What specific details have you remembered? What seems most interesting and relevant to you? What does this remind you of? How does it make you feel?"
    - Reflection questions will help the learner to process and store information into long-term memory.
    - To get the learner to generalize and create connections and principles about the learning, ask such questions as "What do these three elements have in common? What can you conclude about this information? What principles and guidelines can you create based on the materials?"
    - To get the learner to apply the learning in new situations, ask such questions as "When will you next use this new information? What will that be like? What will it look like, feel like, sound like? What have you learned in the past about this kind of information that will prepare you in the future?"
- Additional Strategies to stimulate learning and thinking –
    - Turn text into dialogue to make it more memorable
    - Use stick figure graphics and dialogue bubbles to make points
    - Use lots of problem-solving scenarios

- Use sentence stems to stimulate thinking

Conclusion

To summarize, every excellent eLearning program needs to satisfy two basic criteria:

- Keeping the learner involved enough in the online course so that the opportunity for learning is maintained.
- Presenting the learning in such a way that the learner not only learns but carries out the learning in a performance context, thus producing results.

This paper has highlighted a number of instructional design strategies that will satisfy the above criteria and result in excellent eLearning.

Next Steps

PeakSkills Learning Systems develops breakthrough eLearning programs for companies and organizations, or trains/coaches trainers, coaches and instructional designers in developing their own using the PeakSkills Learning Method.

For more information on how we can serve your eLearning needs, contact Diane Kramer, 631.630.0570 x20 or dkramer@peakskillslearning.com for more details.

References

Bandera, Albert. Self-efficacy: The Exercise of Control. New York: Freeman, 1997.

Clark, R. and Meyer, R. E-Learning and the Science of Instructional Design. San Francisco: John Wiley and Sons, 2003.

Kolb. Organizational Psychology. New York: Prentice Hall, 2002.

Meier, Robert. The Accelerated Learning Handbook. New York: McGraw Hill, 2002.

Nevid, J. Psychology Concepts and Applications. Boston: Houghton Mifflin, 2003.

Shank. Designing World Class e-Learning. New York: Mc Graw Hill, 2002.

About PeakSkills and Dr. Kramer

Diane Kramer, Ph.D., trained as a cognitive psychologist, has led the award-winning design and development team at PeakSkills Learning Systems since 1992. Her coaching and training programs in eLearning design and development are truly exceptional as evidenced by the following quote*:*

"…I attended Diane's workshop on Breakthroughs in eLearning at the eLearning Guild Conference in Boston, 2005…The content of that workshop was really stimulating, informative and full of practical techniques that you can use on your job as an Instructional Designer. I thought it was an excellent session that I highly recommend." – Sandrine Beky, IT Learning Project Manager, Cisco Systems

PeakSkills Learning Systems - Deep and Transformational

Our team at PeakSkills has accomplished its mission of developing a breakthrough method of eLearning instructional design paired with a state-of-the art affordable eLearning Platform (LMS/LCMS). Our offerings are easy-to-use, affordable and serve as a gateway for trainers to add their expertise to the eLearning world. The PeakSkills eLearning Platform includes four areas: administration, authoring, learner and instructor. The platform is excellent for blended learning and coaching approaches.

PeakSkills Benefits

Benefits include:

- **Ease-of-Use** – PeakSkills eLearning Platform was totally designed by trainers for trainers. Trainers love the way the system "just makes sense". If an instructor can handle PowerPoint, this system will take them to a whole new level of eLearning development within a few days of training.
- **Intuitive Content Development** – This template-driven system naturally leverages NLP and Accelerated Learning techniques. By combing a Knowledge Management system with learning methodologies, exceptional quality course building is rapid, easy and inexpensive.
- **Total Control** – The instructor can change any lesson content at any moment.
- **Highly Economical** – PeakSkills eLearning Platform is priced on a simple price per seat program. Pricing is predictable. There are no hidden costs.
- **Flexible** – PeakSkills eLearning courses are used for: pre-sales learning demos, employee, partner and customer training, customer service tutorials.
- **Turnkey Solution** – Everything you need to get started: training, content development and hosting.

PeakSkills is a full service channel driven eLearning company offering the following services:

- eLearning Marketing and Strategic Consulting
- eLearning Content Development
- Training on transformational learning and eLearning Methods
- ASP Hosting of eLearning courses and programs, developed by us or by your team, on the PeakSkills eLearning Platform.

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