



The Questions You Must Answer First

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The Questions You Must Answer First

You may be tempted to jump right in and start creating your first lesson in Captivate. However, whether it's your first time or your thousandth time, you'll want to know the answers to some questions because they will help you create the best learning experience for your learners and not the same boring linear types of lesson so prevalent in eLearning. Create an **Analysis & Design document** from your answers!

Who is Your Audience?

There are several factors about your audience that you should know before you start. If you don't, you could very well find yourself performing a lot of unnecessary rework along the way or after delivery of the learning. Answer these questions.

What do they need?

It is rather amazing that this is one of those questions that is often forgotten when creating eLearning. Who determines what the learners really need to learn? When assumptions are made, it can be quite counter-productive.

For instance, an oil company I assisted once created a multiple-lesson course for refinery workers. They worked on that project for two years and I was brought in halfway through to help get the development work done. All the design had been completed months before. The course was well done and everyone was proud of the work they had done. However, when the course was delivered to the refineries, it was summarily rejected. The workers responded that they did not need the lessons that had been created and that nobody had asked them what they really needed. Yikes! A million dollars were wasted and the department was shut down!

What is their native language?

It's too easy to assume that they all are speakers of English (or your native language) only to find out later that you were wrong.

Are there other languages you must support?

Even when you know the native language to use in creating your course, you should know whether you will need to translate the lesson for other audiences, especially in other countries.

This may affect more than text: it may also mean providing alternate audio and video, or providing closed captioning in other languages.

What is the culture of the learner audience?

We take for granted many norms about our own cultures and sometimes forget that other cultures see things differently. For instance, the use of gestures can vary widely in their interpretation. For instance, this image in 2005 of Jenna Bush innocently flashing the symbol for the Texas Longhorns was widely misinterpreted around the world as a salute to Satan! (See

<http://bit.ly/jennalong>).



There may be other cultural factors to consider, such as humor that may not work in other cultures, overuse of emotion and more.



What are their literacy levels?

It's important to know if your audience is comprised of those with PhDs or if they have not graduated high school. Also, know if you will be providing your course in only one language (English, for instance) but your audience contains individuals for whom it is not their mother tongue. Use appropriate level vocabulary to match literacy levels.



How diverse is your learner audience?

The United States is often called a melting pot, a nation of immigrants from all over the world. As such, its citizens represent a wide range of skin colors, manner of dress, sexual orientation, and more. Many European countries show similar levels of diversity. For that matter, more and more, every nation is becoming more diverse in its makeup, some faster than others.



Take care that images and videos that you use in your course reflect an appropriate level of diversity for the makeup of your audience. In some instances, when the learners are in a part of the world where there is a lot of homogeneity, such as almost all having similar skin color, you may not want to include images and videos of people whom they are not accustomed to seeing. However, in most cases, you'll be better off siding with diversity rather than homogeneity.

What about religious symbols?

In most cases in the United States, we tend to avoid religious symbols in our learning projects unless, of course, the lessons are religious in nature. On the other hand, I've had experiences in other countries where no such taboo exists. For instance, when working with a client in Denmark, they decided that to illustrate the concept of Standard Operating Procedure to use as an example The Ten Commandments, along with imagery of God speaking to Moses, lightning bolts with thunder sound effects, and more. Denmark is a largely secular nation so to them the images they wanted were not taken as a bad idea and fit the bill just fine.

How will their time be spent in learning?

Will they be given a dedicated period of time with no distractions or will they be trying to learn at their desks in between meetings and phone calls? Will they be trying to access it from home? These make a difference in how you should *chunk* or divide up your lessons.



What is their prerequisite knowledge?

Do you need to take them from the very start of the subject matter or do they already know a good deal of it?

How motivated will they be?

Are there external factors that you should consider, such as is their job on the line if they don't pass your course on the first try (motivation: fear) or will they be promoted to a higher level with a salary increase (motivation: reward)?



In some cases, you may find the learners are not very motivated. For example, take compliance training, such as ensuring that employees know the rules regarding handling acids or those having to do with financial matters.

When a company needs to ensure that its employees are up to speed on matters, as dictated by government regulations, in many cases they will attempt to impart the knowledge to their employees in the least expensive way, so the learning turns out to be boring and very much just a PowerPoint experience, with a quiz attached to the end. The employees are generally given an unlimited number of tries to pass the quiz. Once they do, they are recorded as understanding their responsibilities regarding the regulation at hand, and the company can then rest somewhat assured that they will not be held liable if an employee who has been through the training breaks the law. However, this is sometimes contested by the courts if the training is deemed insufficient or negligent.

Quoting from Staffing the Contemporary Organization by Donald L. Caruth and Gail D. Handlogten:

Negligent training may arise in situations in which an employer has provided insufficient training to enable an employee to safely perform job duties without posing a risk to others....The employer may be held liable for negligent training...

Of course, most office place regulations are in place to protect employees and the company, so forward-thinking executives will usually ensure that the training is not simply proforma, but is well done so that employees remain safe and the company's reputation remains high.

How can I motivate learners who aren't already motivated?

Ah, good question. The best way to get learners to want to take your eLearning is to make sure it's interesting and engaging. The first who take your eLearning will find themselves pleasantly surprised and will spread the word to others. Next thing you know, they'll be signing up in droves!



Do any learners have accessibility needs?

If your learners include those with hearing, vision or mobility impairments, what will you do to accommodate their needs? Captivate does include options for you to address the needs of those with disabilities but you will need to do your part in ensuring accessibility options are made available.



What are the job roles that must be considered?

Your learners may include those whose roles differ within the organization and who need to see different parts of the learning based on their roles. Will this be something you must consider in the learning itself by turning some options on while leaving others off or will you need to create different learning approaches for each role?



Why didn't you include the following questions about the audience, Joe?

Is the audience mainly male or female?

Really? Do you think there's a difference in how men and women learn? No, you don't need to make your backgrounds pink or blue!

2. Is the audience mainly younger or older?

It may seem that this is an important question to ask because of the stereotypes of young people texting and gaming moments after birth and of older people who can't seem to figure out how to turn on their computers, but these just don't hold a lot of water anymore.

Games are often meant to be confusing at first: part of the fun is in figuring out how to unravel the confusion. Your eLearning shouldn't be complicated to navigate: focus on the learning, not on making it intricate.

Don't spend too much time worrying about age groups unless you know for a fact that you have a reason to consider those.

3. OK, but what about learning styles?

They're important, right? I mean, some people learn better visually, others by reading, and some like to play games and others hate them, right?

Learning styles have been all the rage for a while in the industry, but they have been debunked by top experts. There just isn't a lot of credibility to learning styles. You don't have to spend a lot of money duplicating a course for different styles!

See <http://bit.ly/mooreStyles>.

What are the Content and the Context?

Of course, you must know what the learners are supposed to learn, otherwise known as **the content**. However, the content must always be couched in **the context** of the employee's needs.

For instance, you may have a new software package that you've built in house and all employees must learn the new software. The **content** is the software to learn.

However, your employees include sales people, secretaries, Chief Operating Officers, technical support personnel, and more. In each case, they need to learn the software inasmuch as it pertains to their roles. Hence, the **context** is the role of the employee, in learning the **content**.

Another example may be firefighter training. While the principles behind firefighting, the **content**, may be largely the same, firefighters who need to put out fires in skyscrapers have a different **context** and hence different needs than those who put out fires in the suburbs where the tallest building may be four stories high.

The content and the context must then both be considered as to your learning approach.

What are the Objectives?

It is at this point that you will want to take a stab at the **terminal objectives** and if possible the **enabling objectives**.

An example of a **terminal objective** is:
The learner will be able to demonstrate the steps to take in the correct order when checking for malfunctions in an air-conditioning unit.

The first two **enabling objectives** could then be:

1. The learner will check if the unit is getting power.
2. The learner will check all of the filters.

Some of the questions that should be asked here:

1. Will you have access to **Subject Matter Experts** (SMEs) to guide you on which content areas you should cover and who can answer questions about the content? In addition, will the SME be able to review the script or storyboard?
2. Will you need to record **software simulations**? If so, will you have access to those systems?
3. Does the **content** already exist in some format, for instance as part of a classroom-based course or in technical manuals?
4. Will you need to adhere to the organization's **Style Guide** regarding color choices, layout, or other matters?
5. Should the content include **images** of company personnel, logos, office space, or other?
6. If different **personnel roles** are accessing the learning and each role leads to a different form of the learning, how will you address each role separately?
7. How often is the content expected to need an **update**? Some content changes little over time. Other content may require an update each month.

What Technology Must You Support?

This is a very important question because it's all too easy to create an eLearning course that everyone assumes will be accessible by everyone, only to discover that it doesn't work in certain browsers or browser versions, or that it is very slow because of limited bandwidth on the part of learners.

Be sure to determine what the technology needs of your learners will be. Some of the questions to ask are:

1. What is the range of **internet speeds** that you are required to meet?
2. Which **browsers** and browser versions must be supported?
3. Will **audio** be a problem for learners? For instance, will they be accessing the learning in noisy environments?
4. Will they need to access the learning on **tablets**? What about **smart phones**? Does each version need to look customized for each platform?
5. Is there a specific **frame size** required, for instance 1024 x 627?
6. Is there a **Learning Management System** with which you must ensure your course can communicate? Will you need to set up an xAPI Learning Record Store?

What's the Story, Morning Glory?

You're human. I'm human. Our learners are human. Humans love stories. "Read me a story!" our kids ask us when they're little. Stories make the world go around and they help explain concepts that otherwise are sometimes difficult to grasp.

When learners are asked to absorb a new business process, customer service approach, or software package, the biggest question you must answer for them is "**Why?**" We seem to only focus on **what** they should learn but forget to tell them the reason for having to learn it.

Stories help explain the reason why. When we were kids and our moms told us not to touch the hot oven, we didn't listen. We had to touch it for ourselves. We had to experience it. We then learned quickly not to touch a hot stove again.

In many parts of life, we don't have the luxury of experiencing something personally to learn not to repeat a mistake we've made. We shouldn't have to anger a client to learn what not to say to clients. We shouldn't have to mess up the company accounting system to learn how not to do that again.

While knowing the **what** helps, stories help us to understand **why**. Why not just tell them the steps to take to keep a customer happy, for instance? After all, everyone knows we need to keep customers happy. There is no secret reason for doing so. While that may be true, if you have learners follow a story in which the learners themselves are the protagonist and they take the steps to keep a customer happy, but oops, they err in their judgment on how to do that, then no harm, no foul, because no humans were harmed in the making of this learning.

So how does one about using stories in their learning? Like any story, you define the scene, the characters, and the plot, and help the learner move through the story to be a hero in the end. This normally leads to the creation of **case scenarios**, wherein the learner is told about a situation, and then must solve the problem.

What Types of Media Do You Need?

Media selection should be based on the content and the context primarily. However, technology that you must support will also play a part.

This is when difficult decisions sometimes are made.

One Case for Video

For instance, let's assume that the content is a surgical procedure that learners must be able to reproduce in a simulation. Such a procedure would probably benefit greatly by video footage of an expert surgeon demonstrating the different steps to take during the procedure.

However, you are told that you can't use video in the course because the organization's IT department does not support delivering videos from their servers.

What can you do? The answer depends on several factors, but your first reaction should not be, "Oh, well, we'll go without video." The difference in this case between having video and not including it can mean learners being well prepared in the former whereas being completely unprepared in the latter.

What about storing the videos in a private area of YouTube and accessing it from within the learning rather than embedding it directly in the learning? This can appear seamless to the learner but the videos then don't have to be served from your organization's servers. In addition, YouTube and other video-sharing sites are optimized to deliver videos as quickly as possible, which means you may be better off delivering them that way even if you could use your own company's servers.

If that's not an option, then surely other options can also be considered.

On the Other Hand...

Video may not make sense for a great variety of content areas. Using videos in an accounting course, for instance, may be more of a distraction than an aid to learning.

Avoid using talking head videos unless it's very important that the learner see the instructor talking to them. It is generally not helpful and can get boring quickly. It also subtracts from screen space that you can use for better options.

Also, ensure that videos, like everything else you include in your course, truly support the learning and are not just thrown in for fun in an attempt to make the content interesting. If anything, the videos will distract learners from learning the content and later they'll remember the videos.

In the end, considering all the factors discussed, you will want to ascertain which of these will make sense to include for the learner to better grasp the content:

1. Photographs

- a. Already resident in company libraries
- b. Shot by a professional photographer
- c. Shot by an amateur
- d. Purchased from online photo libraries
- e. Obtained free under Creative Commons
- f. Characters provided by Captivate's Assets library

2. Other images

- a. Scalable vector graphics
- b. Charts and graphs
- c. Screen grabs
- d. Hand-drawn and scanned images
- e. Other types of images

3. Video

- a. Recorded by skilled experts using professional equipment
- b. Recorded on smart phones or cheaper cameras by you or others (can be surprisingly effective in some cases)
- c. Purchased from online video libraries
- d. Already resident on company servers

4. Audio

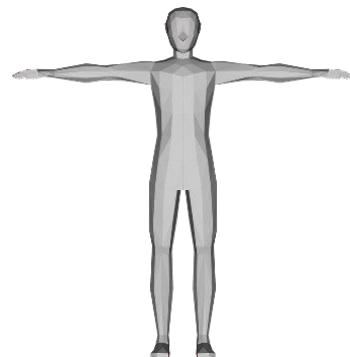
- a. Professional narration
- b. Amateur narration (perhaps you are the narrator)
- c. Text-to-speech narration
- d. Sound effects (e.g. fire alarm)
- e. Music (unlikely)
- f. Ambient sound (e.g. hospital or office)

- 5. **2D animation** (objects moving on screen)
- 6. **3D animation** (objects changing or moving)
- 7. **Augmented reality** (provided in a web window)
- 8. **Virtual reality** (provided in a web window)

What Types of Interactions Will You Include?

Your level of interactivity and types of interactions you include can also make the difference between a passive and boring learning experience and one that energizes and engages learners.

Again, you should consider the learning experience in every case. For instance, going back to the idea of our heart surgeon training, if a learner is supposed to choose the correct scalpel and then show where on the patient's body the incision should be made, there are several options to have the learner practice this.



Method One

Label each of the five scalpels A – E and have the learner choose the correct scalpel as a multiple-choice question. We could then label several parts of the body and have the learner choose the correct answer the same way.

Method Two

Have the learner simply click the correct scalpel and then click the correct position on the body. The scalpel will then animate, moving from the scalpel tray to the selected position on the body.

Method Three

Ask the learner to click and drag the correct scalpel to the correct position on the body.

Let's stop there, though other suggestions can be made, including virtual reality. Of the three above, which would help the learner best retain the skill being learned? To answer that question, you must consider what a surgeon does in reality: the surgeon picks up the scalpel (or has it handed to him or her), and then moves it to the correct position on the patient's body.

Which of the three most mimics the real action? Clearly, it's Method Three. This will help the learner best remember the action to take. In this case, a drag-and-drop interaction is a better option than the other choices.

Simple Interactions

Based on what will help the learner best learn the content, which of these should you consider incorporating in the learning?

1. Click or touch buttons for navigation or to answer questions.
2. Click or touch an object or an area of the screen.
3. Type text.
4. Drag objects to the correct positions.
5. Roll over objects to pop up a variety of information. (However, this requires the use of a mouse so is not something learners can do on mobile devices.)

More Complex Interactions

Does the learner need to demonstrate a series of steps in one of the following?

1. Perform a task in a simulation of a software application?
2. Shut down an overheating generator?
3. Perform a surgical procedure?
4. Sell a car to a reluctant customer?

Any time learners need to demonstrate a series of steps in the correct order, you don't want them to simply chose the correct series of steps or to put them in the right order in a sequencing exercise. No, you'll want to have them perform those steps one after the other just as they would have to do on the job. In fact, most tasks are not comprised with a simple click or a drag. They require some thought and an understanding of which steps to take in the correct sequence. The more they can be practiced on a computer, even without the benefit of virtual reality, the better prepared the learner will be.

In these cases, you should consider whether a learner who incorrectly performs one of the steps will be stopped immediately or will be allowed to continue without full knowledge of the mistake they made, until later in the process. This is the difference between *immediate feedback* and *delayed feedback*.

Consider in our case of the heart surgeon, if we immediately stop the learner when a mistake, we could have the learner:

1. Note the mistake and continue.
2. Try again until they get it right.
3. Not tell them of the mistake and let them continue.
- 4.

In the last option, this may give the learner to realize the mistake after another step or two and perform an act to remediate the mistake. A heart surgeon may make a mistake, for instance, that is not a show-stopper and in fact can be remedied. On the other hand, gone unchecked, the mistake could lead to the patient become distressed or dying. You need to decide what makes sense for the learner for each wrong choice made. Again, try to mimic real life as much as possible.

What Quiz, Test or Assessment Options Must Be Included?

Consider the following points:

1. Will the quiz be self-contained at the end of a lesson or will the questions be distributed throughout a lesson, with other content in between? (In Captivate, it doesn't matter.)
2. What is considered a passing score?
3. How many tries does the learner have to complete and pass the quiz?
4. Do the questions need to be randomized from one or more pools of questions?
5. Do the answers to questions need to be shuffled?
6. Should learners be able to move backwards through the quiz?
7. Can the learner jump out of the quiz and jump back at any time without penalty?
8. Are the questions ready in some format or must they be created?

Quizzes can include any of these types of questions. Any of them can be graded or not graded, except for Rating Scale, which is never graded.

If the questions already exist in a **GIFT** (General Import Format Template) format file, they will be easy to import. If they exist in another Captivate file, they can be imported from that file into yours.

You can also create a pretest and knowledge checks, which are both not graded and not recorded. Can those be helpful to the learner?

What Learner Progress Points Must Be Captured? What Constitutes Completion?

Many standard progress points can be automatically sent by Captivate to a Learning Management System, including answers given, number of tries, time taken, and more on every interaction. If more than is included is required, you'll want to know before starting.

In addition, it's important to know how a learner completes a lesson. Is it by simply navigating through every part or must learners pass a test by a certain amount?

Will Updates and Maintenance Be Performed by Others in the Future?

This can also make a difference in how you create your Captivate files. While you should always document your work well, it's especially true when someone else will be picking up the ball in the future and work with your code.

It's also true that once you haven't looked at your own Captivate work in a while, you may appreciate that you documented your work when you return to it!

Multiple Choice
True/False
Fill-In-The-Blank
Short Answer
Matching
Hot Spot
Sequence
Rating Scale (Likert)
Random Question

What are the Social Network Needs?

It is often a great idea to extend your eLearning by allowing learners to collaborate with each other using Twitter, Facebook and other social networks. Can your course benefit from them?

How Will the eLearning be Evaluated?

Evaluation of the eLearning is a very important and often forgotten step. Whether it's an LMS report showing details about how learners performed individually and overall, it's important to know if the eLearning is effective or not. If not, what needs to change to make it so?

Final Checklist

Now make a list of what factors you will need to include in your course.

1. SME Availability?
2. Learning Objectives?
3. Learner language needs?
4. Learner accessibility needs?
5. Learner time availability?
6. Learner prerequisite knowledge?
7. Learner motivation?
8. Learner job roles?
9. Learner diversity, culture, religion?
10. Content and context?
11. Technology to support?
12. Images to include?
13. Audio to include?
14. Video to include?
15. Animations to include?
16. Software simulations and demos?
17. Augmented or virtual reality needs?
18. Simple interactions to include?
19. Complex interactions to include?
20. Quizzing needs?
21. Progress check needs?
22. Branching needs?
23. Completion criteria?
24. Updates and Maintenance?
25. Social Network Needs?
26. Evaluations?

About Your Instructor



Joe Ganci is President of eLearningJoe, LLC, a custom learning company located outside Washington, D.C. Since 1983, he has been involved in every aspect of learning development. Joe holds a degree in Computer Science and writes books and articles about eLearning. His mission is to improve the quality of eLearning with practical approaches that work.

Joe is a frequent teacher and presenter at industry conferences and at client sites, especially on the subject of eLearning development tools, such as Adobe Captivate, Articulate Storyline and Trivantis Lectora. His tool reviews are published monthly and he considers himself a lifelong learner, always studying new tools and tool versions, along with instructional design techniques and evaluating the results of learning initiatives.

He has delivered keynote speeches and has taught all over North America, Europe and Asia, most recently in Warsaw, in Shanghai, in Moscow, and in Dubai. He has received several awards for his work in eLearning, including a Lifetime Achievement Award in 1999 and the eLearning GuildMaster Award in 2013.

Mr. Ganci works with organizations worldwide to assist in their quest to improve their productivity and increase their revenue by ensuring their employees learn and retain what they must know to perform at their highest levels. His consultancy covers all aspects of eLearning analysis, design, development, and evaluation. Joe understands technology and is an expert in many eLearning development tools. In fact, Joe frequently trains groups at their places of business. His clients have awarded him several letters of recommendation.

Joe loves languages. He is a native English speaker and also speaks Italian fluently. He knows French, German, Spanish and Russian to varying degrees and practices as often as possible.

Sample Student Quotes

- I thoroughly enjoyed and learned lots from your wonderful workshop.
- Joe infused software education with an understanding of eLearning best practices. Invaluable was the introduction of an approach to create interactive, learner-driven eLearning beyond just teach-and-test.
- It was both informative and fun – good humor and warmth coupled with Joe's wisdom.
- The training was great! I was impressed especially as a virtual participant. I really enjoyed it and would recommend virtual participation as you engaged those of us on the phone as much as those in the classroom.
- Having paid much more than the cost of this workshop for similar professional training workshops in the past, I feel the workshop taught by Joe Ganci was an excellent value.
- I just wanted to follow up and say thank you for such an engaging class. It has been EXTREMELY beneficial to me in my job, and I had the opportunity to return to work and use what I had learned right away. In fact, the group for which I was creating an e-learning commented, "I can't believe he got all of this done in two weeks!" and my boss was happy to tell them that I had completed it in just a day. I finally feel like I know what I'm doing. As I mentioned in class, it's as though my company bought me a Mercedes, but since I didn't know how to drive it, I was pushing it around in circles. Now I can confidently get in the driver's seat and get it done. Thanks again for such a great class.
- The 2-day workshop not only taught me how to razzle and dazzle eLearners, it sparked imagination in my dry procedure writing brain.
- Very appropriate for our level, not too complex. Smart presenter, very impressive. Great presentation. Style with humor :-)
- I learned so much! Best investment of my training dollars ever.
- Best workshop ever!
- Variety in concepts presented, incremental exercises, knowledgeable instruction and many good tips and best practice recommendations.
- I got very engaged with learning all this cool stuff. I've learned a lot and now feel more powerful. This is exciting. It was very effective for me.
- Thought the class was perfect. Enjoyed Joe's presentation immensely. Thank you for a fantastic class!
- Great instructor: clear, upbeat and engaging
- I attended your session today and I loved it. I learned tons.
- You did a fantastic job and were extremely helpful! I look forward to gaining much knowledge from you in the future.
- I learned SO MUCH at the workshop. I couldn't stop hyping it up to everyone at work and tweeting about it. I hope to continue to follow Joe and, if he teaches a longer session and it's open to me, to attend another. At the risk of sounding like a groupie, Joe Rocks!