



A BEGINNER'S GUIDE TO RESPONSIVE DESIGN FOR ELEARNING



SHIFT

DISRUPTIVE ELEARNING

Contents

INTRODUCTION 3

SECTION 1: 4
Trends

SECTION 2: 7
What Exactly is Responsive Design?

SECTION 3: 9
Why Should We Care? Why Bother?

SECTION 4: 11
Adaptive vs. Responsive vs. Mobile:

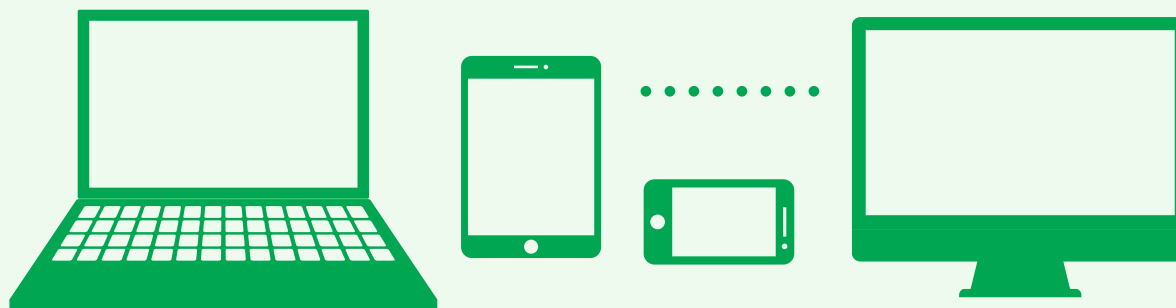
SECTION 5: 15
Best Practices

CONCLUSION 26

REFERENCES 28

INTRODUCTION

*If you are new to the responsive design world,
read this comprehensive but easy-to-understand
guide to learn the ropes and get the low-down
on the tips and tricks.*



SECTION 1:

Trends



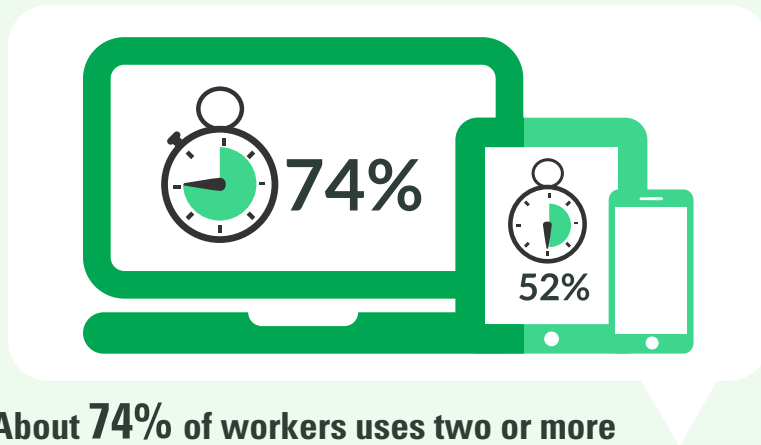
Learning is Changing: The Rise of the Multi-Device Learner

Your learners live, work and play in a multi-screen world*. So you have to seek and reach out to them through their personal devices. The rules today are different than what they were when the desktop used to be the sole means of delivering learning.

So, before you jump on the bandwagon and adopt any new practice or a different way of working, you have to understand its context. To make a seamless transition to Responsive Design, you have to not only understand the concept but also your learners' cross-platform behaviors.

After all, you have to create responsive courses that suit their habits and preferences and that are in sync with their attitudes.

* Google Study: The New Multi-Screen World: Understanding Cross-platform Consumer Behavior. 2012.



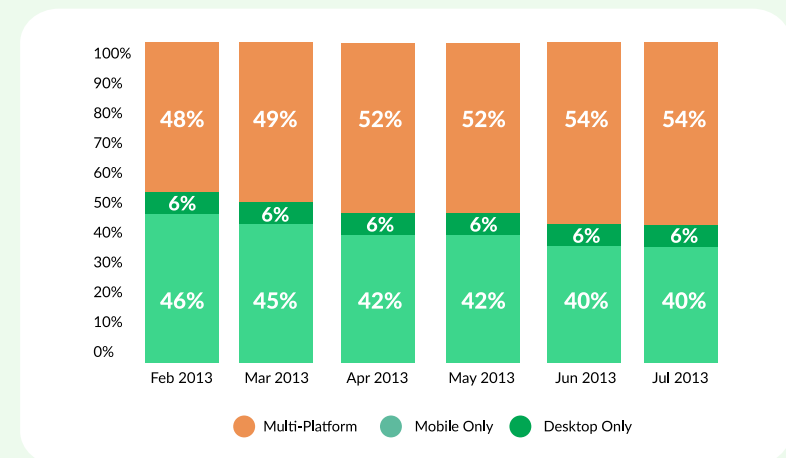
About **74%** of workers uses two or more devices for work - And **52%** uses three or more! Source: [Forrester](#)

Multi-platform users are a dominant majority:

Your learners are quick to adopt new technologies and they usually own more than one device. According to a [report by Nielsen](#), it is common amongst users of multiple devices to switch from one device to another even while working on the same task. Of course, they expect consistent and stellar experiences on all devices.

Here are some other statistics you should know:

- ✓ In the U.K., 60 percent of all adult Internet users utilize at least 2 devices every day while about 25 percent use 3 devices.
- ✓ One in three users multi-task with their mobile devices. In fact, the majority of multi-device users start one activity on one device but transition to another to finish it, and most commonly, these users switch devices in order to finish a task on a larger screen. Among all the switches tracked, 22% finished on a tablet and 58% on a laptop. ([Google Study 2012](#))
- ✓ More than 50 percent of Internet users are accessing the web using more than one device.



[Comscore Study](#)

Learners use different devices for various activities:

Your learners switch from one device to another and use more than two devices throughout the day, but these are not random choices. They have a method, and their [*choice of a device depends on what*](#) they do with it.

- To communicate: 77 percent of all adults who own a smartphone use it on the go. They use it primarily to communicate and access social media.
- To improve productivity: The desktop PC or the laptop is still the old and reliable “workhorse” that people use at home to perform productivity-related tasks.
- To access entertainment options: The tablet is the one-stop entertainment destination for the whole family; a whopping 50 percent of all tablets are shared between family members.

Your learners choose a device depending on where they are when they want to consume the content, the nature of the content or the task they want to perform, and the time they have on their hands. For instance, your learner opts for his smartphone when he wants to search for information on the Internet while he is on the subway. But he prefers to use the tablet to read an eBook and the laptop computer if he has to work on spreadsheets.



NOTE: THIS DATA COMES FROM



“[*Multi-Device Usage Study*](#),” by GfK Nov – Dec 2013 (study commissioned by Facebook). Survey of 2,018 UK online adults and 2,004 US online adults.

“[*The New Multi-Screen World: Understanding Cross-platform Consumer Behavior Study*](#)” by Google - 2012 Google

SECTION 2:

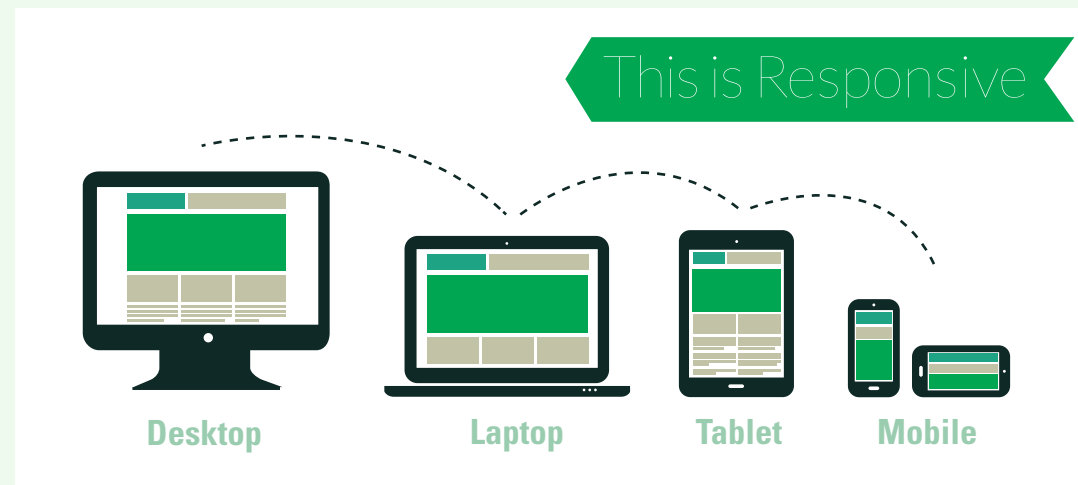
What Exactly is Responsive Design?



“Responsive design is an approach to web page creation that makes use of flexible layouts. The goal of responsive design is to build web pages that detect the visitor’s screen size and orientation and change the layout accordingly” – *Wikipedia*.

[*Responsive eLearning Design*](#) has its roots in Responsive Web Design (RWD), which is a design approach to make the on-screen content realign itself automatically depending on the size and resolution of the screen it is being displayed on. This ensures optimal viewing performance regardless of the nature of the device. Learners are able to access the same course on a range of devices and still get a great learning experience.

Take a look at this example:

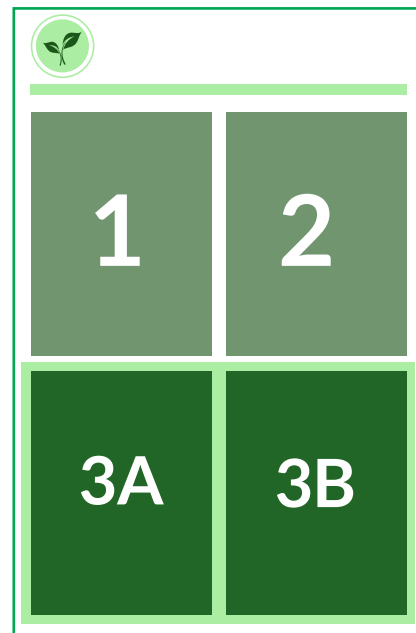


For instance, if you are viewing a course that features a Responsive Design, be assured that you won't be made to scroll up and down or pan endlessly or squint to read the text even if you choose to access it on your hand-held mobile device whose screen is smaller than that of your PC. With Responsive Design, the various graphical and textual elements will automatically size and orient themselves to match the dimensions of the screen.

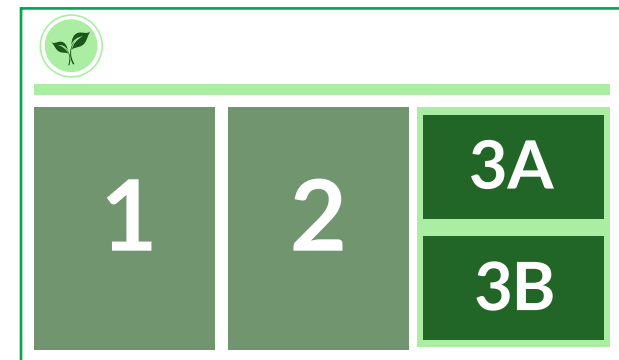
MOBILE



TABLET



DESKTOP



SECTION 3:

Why Should We Care? Why Bother?



With the BYOD revolution slowly creeping in at workplaces, it is likely that your learners will use a lot of different devices and browsers to view your course. As such, you have to know about the benefits it affords to you as a designer or content manager and to your learners.

- ✓ **Responds to user's behaviors and environments:** More and more people in your learner base are using multiple devices. Your learners now demand the freedom to access learning on their chosen devices and take the courses at their own pace.

- ✓ **It delivers stellar user experience:** Learners don't have to constantly zoom in or shrink the text or images on the screen to get a holistic view of the content. Instead, the responsive content adjusts automatically to fit on the screen of whichever device your learners may use. This ensures that you are delivering stellar user experiences every time.
- ✓ **It elicits greater user engagement:** Because responsive courses deliver stellar user experiences, they are also immersive and keep learners glued to the screen. According to [statistics](#), more learners prefer mLearning to traditional eLearning that is delivered for the desktop computer.
- ✓ **It is future-proof:** Responsive Design makes your courses [future-proof](#). As a new mobile device hits the market every other day, be assured that your learners will make the switch from one device to the next before you can say "responsive." Building a responsive course ensures that you can reach your learners, both today and tomorrow.
- ✓ **One version for all devices:** You are spared the expenses and efforts of creating multiple versions of the same course to be viewed on different devices. You develop one course that can be viewed anywhere, so that you save money and can optimize the use of resources.
- ✓ **It provides context and just-in-time learning:** This is one of the greatest benefits of incorporating Responsive Design in eLearning. You can deliver performance support to the learners just when they need it the most. Imagine the sheer convenience of being able to access a checklist or scan over a list of facts by just taking out your smartphone instead of trying to remember them or waiting until you can get to your desk.

SECTION 4:

Adaptive vs. Responsive vs. Mobile: What's the Difference?



Responsive Design is still in its beginning stages. So the jargon is confusing. It is also difficult to fully comprehend the strategies used to design courses for different devices because they all vary subtly.

Here is some jargon related to strategies that often come up and confuse designers and clients alike:

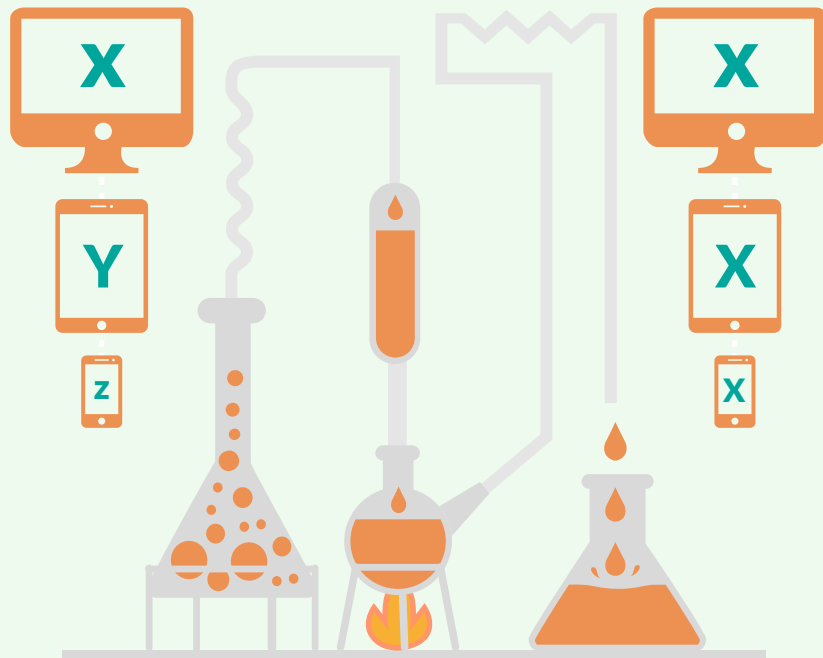
Adaptive Design

The uninitiated often use *Adaptive Design* and *Responsive Design* synonymously. But they are different concepts.

Adaptive design is developed based on the sizes and resolutions of certain common screens. The content shows up differently on different devices. It is less future-proof than Responsive Design because with the plethora of devices hitting the market every day, there is no “standard” screen size or resolution.

Responsive Design is developed around a fluid grid that translates designs seamlessly across devices without changing their looks. On the other hand, Adaptive Design is developed around a fixed grid that works only for certain “common” screens, resulting in your course looking different on an iPhone and an iPad.

ADAPTIVE



RESPONSIVE

Mobile-Optimized

A mobile-friendly design is one that is exclusively developed to be viewed on smartphones. Given that smartphones vary widely in screen size and resolution, mobile-friendly designs are not as user-friendly or instructionally sound as they are touted to be. For instance, you may well end up scrolling endlessly to find content or squinting to read text with a design that is supposed to be “mobile-friendly.”

Responsive Website VS Mobile Version



Responsive is mobile.

This is the **biggest myth** that surrounds Responsive Design, partly because the concept came into being as more and more people started using smartphones and other hand-held mobile devices to access digital content. Responsive ISN'T mobile.

Responsive Design actually means that your course can be viewed optimally on all types of devices, including mobile platforms. This means a course that incorporates a Responsive Design shows up as intended not only on smartphones and tablets (both with standard and retina displays) but also on desktop PCs with many different resolutions like the usual 1024x768 and 800x600 pixels, 1366x768 pixels and 1920x1080 pixels.

HTML5

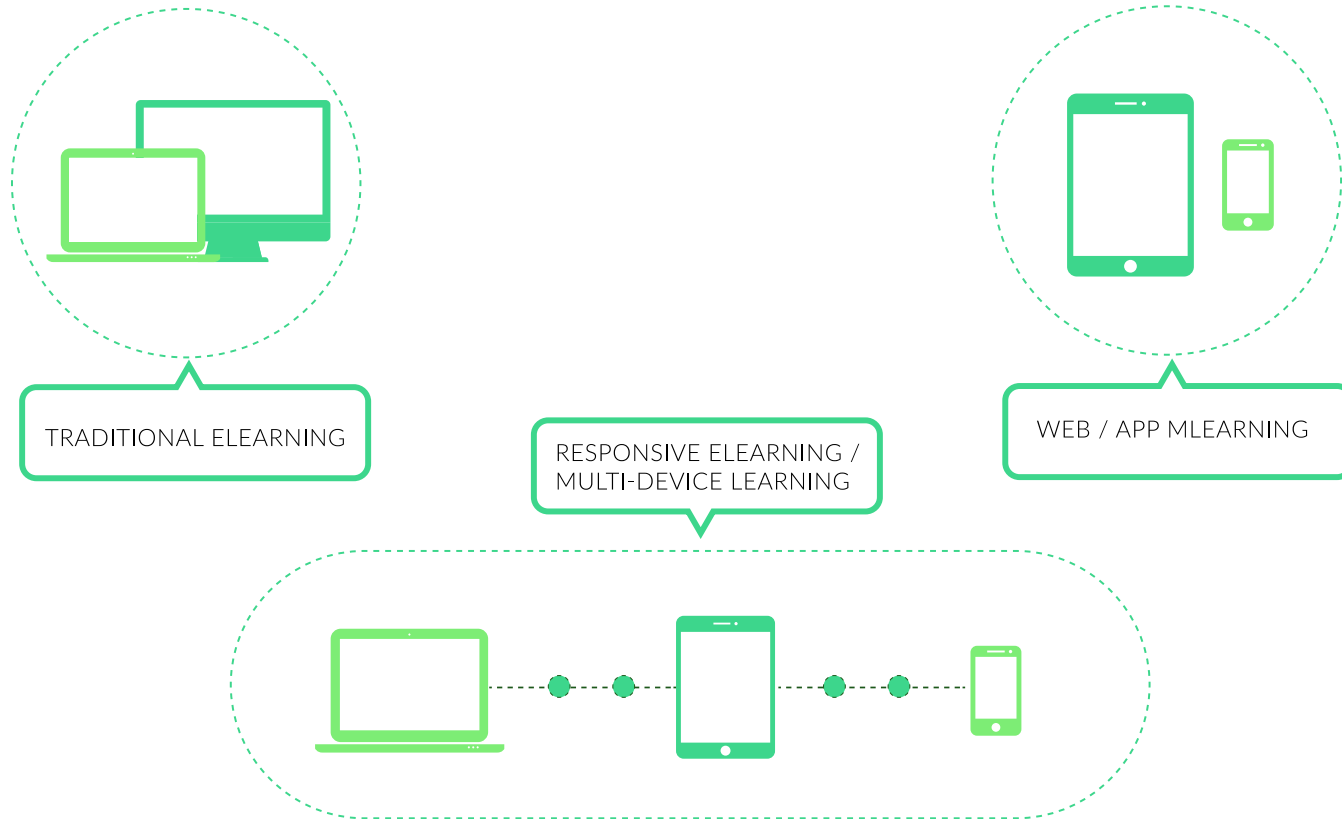
Not too long ago, most eLearning courses were published on Adobe Flash, a video-compatible program. But this practice is now obsolete because the mobile devices of today do not support Flash. The *lingua franca* is HTML5. It is also becoming a favorite of eLearning professionals.

HTML5 is the latest version of HTML (Hyper Text Markup Language), the prevailing standard for building websites.

HTML5 lets you create device-independent eLearning courses that can be accessed anywhere and even without an Internet connection because it lets you save and store content offline. This makes responsive eLearning courses built with HTML5 convenient for learners.



Desktop eLearning vs. Responsive vs. Mobile



SECTION 5:

Best Practices

Responsive Design from the Experts



Hazel Alpizar
Analysis & Innovation Manager at SHIFT

If you have been keeping up with what's happening in the world of eLearning, then you don't need to be told that [*Responsive Design is IN*](#) and it is going to be shaping things for quite some time. If your company has already embraced Responsive Design, congratulations! If you have not and are wondering how to make the switch from desktop-only eLearning to Responsive Design, then make haste and pick up the skills before you get left behind.

Here is a list of 10 best practices or "Commandments" to help you as you take baby steps to your first responsive eLearning course.

1. Use the scroll bar to your advantage

For eLearning designers who design mostly for desktops, scroll is a taboo. But now, no more! The fold is passé. You don't have to work yourself into a sweat trying to cram everything in on the top of the page.

Allow some breathing space for the eyes; spread out the page by using long, flowing content chunks separated by amply-sized white spaces. By pushing content below the "fold," you compel your learners to engage with your page and explore around.

Your learners scroll when they browse webpages. They certainly won't mind scrolling to access content when they are on their mobile devices. What is more, they will welcome a design where they don't have to click too many "Next" buttons to move through the course. However, do not go overboard in your enthusiasm to [*create a scrolling design*](#).

Here's what you should remember when you create a scrolling design:

- Do not make a page more than three scroll-lengths long on an average-sized mobile device.
- Do not push critical content too much down the page; it might get missed.
- Make one "scrolling" page address per one learning objective for example. This also manages the [*cognitive load*](#) of the screen.

2. Learners are here for the content, and they want it FAST

Responsive Design has an abiding mantra:

[*Mobile First=Content First*](#).

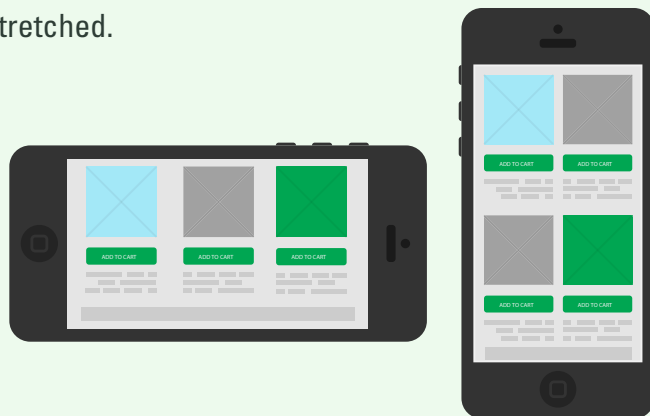
Respect your learners' time and deliver the content FAST because that is what they are here for. They don't care about any of the challenges you may have come across when designing for their mobile devices. They are easily frustrated by interruptions and slow performance.

So, take a "Content First" approach before you get down to designing. This ensures that all on-screen elements—images, animations, navigation, and others elements—are relevant, crisp and clear, and that they load fast. Having a content first strategy respects your learners time and attention, especially when they are on the go.

3. Landscape or portrait? Or both? Get it straight right away

You can choose that your content be displayed in either one or both formats. But you have to make this decision before you design your course. Here's what you should keep in mind:

- 59% of learners tend to favor the landscape orientation vis-à-vis 41 percent who prefer the portrait orientation.
- Create a design that is compatible with both types of orientation, but concentrate on a landscape design.
- Ensure that your images don't look like they have been stretched.



4. Size matters. Keep an eye on the file size

You wouldn't want to incur your learners' wrath by dishing bandwidth-clogging data that is painfully slow to load. [*Keep an eye on the size of the files*](#), especially the image, audio and video files that add oomph to your course. You have to also make sure that you use platform-independent file formats that play on the widest range of devices.

Keep the following tips in mind:

- Compress files.
- If you are designing for multiple devices, use the PNG or JPG format to save images, MP3 for audio and MP4 for videos. Use PDF for textual content.

- Upload audio and video files to streaming channels like YouTube or Vimeo and add a link or embed them. This ensures faster uploads because streaming services perform efficiently at different bandwidths.

- [*FORGET Flash!*](#)

5. Make navigation intuitive

You don't want to make your learners run around in circles to access content. Your learners are here for the content; make it easy to find. Here are some tips to create a simple and intuitive navigation structure that makes moving around a breeze:

- Make it easy to search because this is what your learners will do when they want to locate content. According to a study, large, open-text boxes prominently placed on top of the page [*appeal most*](#) to learners.
- Make the menu easily accessible. This means that your

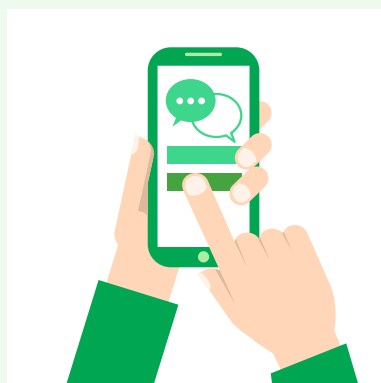
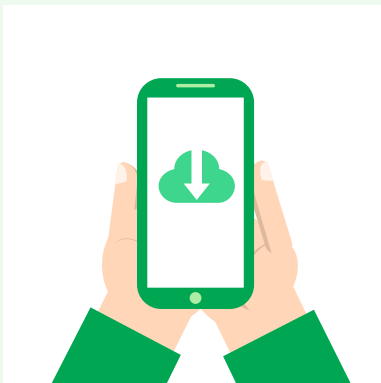
learners should be able to access the menu by tapping on a single and always-available icon wherever they may be on the page.

6. Finger-friendly design

If you are wondering how the "tapping" experience differs from the "clicking" one, choose a finger-friendly design. Here are some pointers:

- Space out the touch targets. On a mobile device, learners don't have the mouse cursor to point and click on buttons. Nor are there keyboard shortcuts. They have to tap on buttons and tabs to move around and access content, and [*our fingers are usually clumsier than the cursor*](#).
- Make interactivities easily recognizable because many touch devices do not support the hover feature.

- Make sure that learners can move through your course without having to use more than two thumbs at a time.
- Use large buttons and links with ample hit areas that are easy to tap. Keep the buttons large whatever the device you are designing for, touchscreen phones, tablets or desktop PCs.



7. Keep an eye out for line length to avoid readability issues

A designer's primary focus when working with type is that it **MUST** be legible—especially for mobile devices! The line length of your text is a critical factor that can improve or mar readability.

A line of text that is too long is hard to read smoothly because it is difficult to keep track of the lines that seem to merge into one another. On the other hand, lines that are too short break the flow of reading because the eyes have to dart back and forth between the lines. You have to strike the right balance.

EXPERT'S TIP: Keep the length of the line to about 60-75 characters.

60 CPL (Characters per line)

Sed ut perspiciatis unde omnis iste natus error sit volupta
 Sed ut perspiciatis unde omnis iste natus error sit volupta
 Sed ut perspiciatis unde omnis iste natus error sit volupta
 Sed ut perspiciatis unde omnis iste natus error sit volupta
 Sed ut perspiciatis unde omnis iste natus error sit volupta
 Sed ut perspiciatis unde omnis iste natus error sit volupta

90 CPL (Characters per line)

consectetur, adipici velit, sed quia non numquam eius modi tempor incidunt ut labore et
 consectetur, adipici velit, sed quia non numquam eius modi tempor incidunt ut labore et
 consectetur, adipici velit, sed quia non numquam eius modi tempor incidunt ut labore et
 consectetur, adipici velit, sed quia non numquam eius modi tempor incidunt ut labore et
 consectetur, adipici velit, sed quia non numquam eius modi tempor incidunt ut labore et
 consectetur, adipici velit, sed quia non numquam eius modi tempor incidunt ut labore et
 consectetur, adipici velit, sed quia non numquam eius modi tempor incidunt ut labore et

Here are two screens. On one screen, the line length is 60 CPL while on the other, it is 90 CPL. Which screen is easier to read?

8. Use less images

Images definitely make the course look good, but they will turn away irate learners who have no time to [wait for screens to load](#). Remember, some 3G connections can be slow. Additionally, many learners may also choose to take your course while on the move and without Wi-Fi connectivity. You will want to make sure that

you don't pack your course with 100 Kb images, videos that buffer and pause endlessly and large and complex technical diagrams that don't fit on one screen.

Always keep these in mind:

- The more the media, the greater the risk of your course becoming unstable and slow.
- Only add media that enhances the value of your content.
- Adding color is a great way to add more impact to your courses with less images.

9. Align content with context

[*Google's Multi-Screen World Report*](#) reminds us that context determines device choice. You have to figure out the learner's context to know the device(s) he generally uses to access learning.

Consider:

- Time Available to Access Content: If you are designing for mobile devices, don't compel learners to access hour-long courses on their small mobile devices.
- Moment of Need: You have to figure out that moment WHEN learners will NEED your content before you can accurately guess their choice of a device and design learning for it. In fact, knowing your learner's moment of need will also help you determine if you will require responsive design.
- Location of the Learner: Don't create an audio-led course if your learners are expected to take it during their morning commute to office.

Knowing about the "context of use" of your learner will help you:

- Identify information that your learners want to have access to whenever they need it
- Identify relevant information that your learners will access on the go
- Identify and select the pieces of content that you have and can deliver on multiple mobile devices
- Understand the "where," "when," "why" and "how" of an experience and deliver immersive and purposeful content

When you align content with context, you can effectively deliver just-in-time learning.

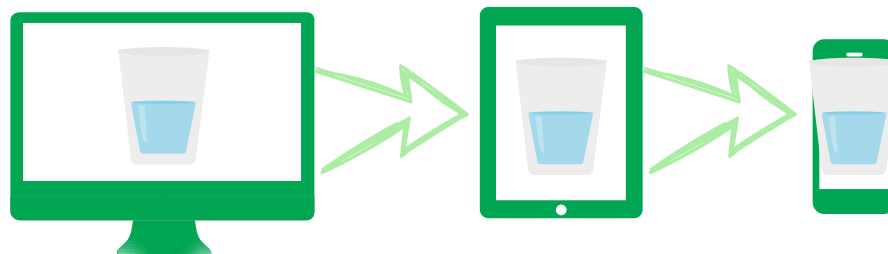
10. Don't think desktop first

Here's how the most effective and seamless responsive eLearning courses are created in reality: they are developed keeping the small screen in mind, which presents the most challenging viewing experience. Because these solutions take care of the stiffest of all viewing requirements, they are automatically purposed to run seamlessly on all other screens.

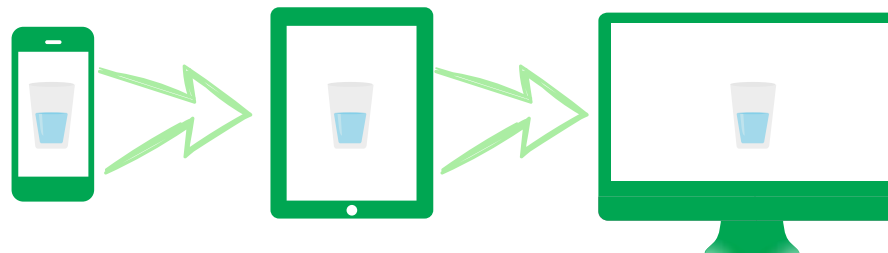
Translating "literally" from the desktop to the mobile environment creates serious issues, leading to errors that necessitate rework and as a result, precious time and effort are wasted.

Industry stalwart and prominent thought leader [R. Jacquez warns](#) against following the "desktop-first and mobile-second" approach. And in doing so, he draws attention to the often-overlooked concept of Human Computer Interaction (HCI). According to Jacquez, people interact differently with their tablets and smartphones than they do with a desktop or a laptop computer. For instance, they don't hunt around for the right-click option when they use mobile devices because they can get by without it.

Mobile Last (DEGRADED, SHOE-HORNED, SHORT-SIGHTED, CRAPPY)



Mobile First (PROGRESSIVELY ENHANCED, FUTURE-FRIENDLY, AWESOME)



CONCLUSION

Responsive isn't just a fad!

On the contrary, Responsive Design is here to stay. Period.

The ever-increasing use of mobile devices means that more and more learners have now access to multiple platforms. They will, of course, demand consistent viewing experiences across all devices. Besides, your corporate learners are busy people.

Now that you know Responsive Design is not going away anytime soon, it is time you up your skills. After all, you will want to keep pace with your learners as they switch to newer devices and create courses that will hold their own in a multi-screen world.



SEE EXAMPLES OF RESPONSIVE ELEARNING DESIGN



START YOUR FREE 15-DAY TRIAL

SHIFT
DISRUPTIVE E-LEARNING

REFERENCES

- Rasmussen, James. "Learner EngagementL Tips for Responsive Design" Learning Solutions Magazine. May 21, 2014 Accessed June 12, 2015.
- Jacquez, RJ. " 6 Reasons Why Responsive Design Makes Sense as the Future of e-Learning and m-Learning Design". The mLearning Revolution Blog. March 4, 2015. Accessed June 5, 2015.
- Jacquez, RJ. "10 mLearning Lessons I Learned from reading Mobile First by Luke Wroblewski [Book Review]". The mLearning Revolution Blog. March 4, 2015. Accessed June 5, 2015.
- Pettit, Nick. "The 2014 Guide to Responsive Web Design". Tree House Blog. June 2, 2014. Accessed June 5, 2015.
- Rampton, John. "How Important is Responsive Design". The Huffington Post. May 6, 2014. Accessed June 4, 2015.
- Trenholm, Rich. "Flash is Dead for Mobile Phones and Tablets". CNET. November 9, 2011. Accessed June 2, 2015.
- Georgiou, Michael. "Need for Speed – Fast Loading the Key to a Satisfying UX". Usabilia. September 11, 2014. Accessed June 2, 2015.
- Horton, Chris. "Mobile First Means Content First with Responsive Web Design". Synecore. November 4, 2014. Accessed June 2, 2015.

- Pamental, Jason. "A More Modern Scale for Web Typography". Typecast. January 15, 2014. Accessed June 2, 2015.
- Cousins, Carrie. "Is Adaptive Better than Responsive Design?". TNW News. September 1, 2015. Accessed September 3, 2015.
- Bean, Cammy. "Top Tips for Responsive eLearning Design". Slideshare. October 30, 2014. Accessed July 15, 2015.
- Bean, Cammy. "Responsive eLearning Is a Must-have, Not Just a Nice-to-have". Learning Solutions Magazine. February 23, 2015. Accessed July 16, 2015.
- Marcotte, Ethan. "Responsive Web Design". A List Apart. May 25, 2010. Accessed July 16, 2015.
- Ratcliff, Christopher. "More than 40% of online adults are multi-device users: stats". Econsultancy. March 7, 2014. Accessed July 16, 2015.
- Eckert, Jay. "7 Common Mistakes to Avoid in Responsive Web Design". Parachute. July 14, 2014. Accessed July 16, 2015.
- Google. "The New Multi--screen World: Understanding Cross--platform Consumer Behavior" August, 2012.