



THE MOBILE MINDSET

HOW TO WOW YOUR LEARNERS

by Jake Huhn



| Bottom-Line Performance



FORWARD

As many of us can attest, it's difficult to remain on the cutting edge of technology when it comes to training. Whether it's resistance within our organizations or a limitation of tools (like a bloated LMS or ancient browser requirements), working to improve design can often feel like more of a hassle than it's worth. But regardless, we work hard to bring learners the best possible experience in the best possible environment.

That's why this eBook isn't about making everything mobile. It's about **creating the best possible learner experience** while also making the training we create ready for change.

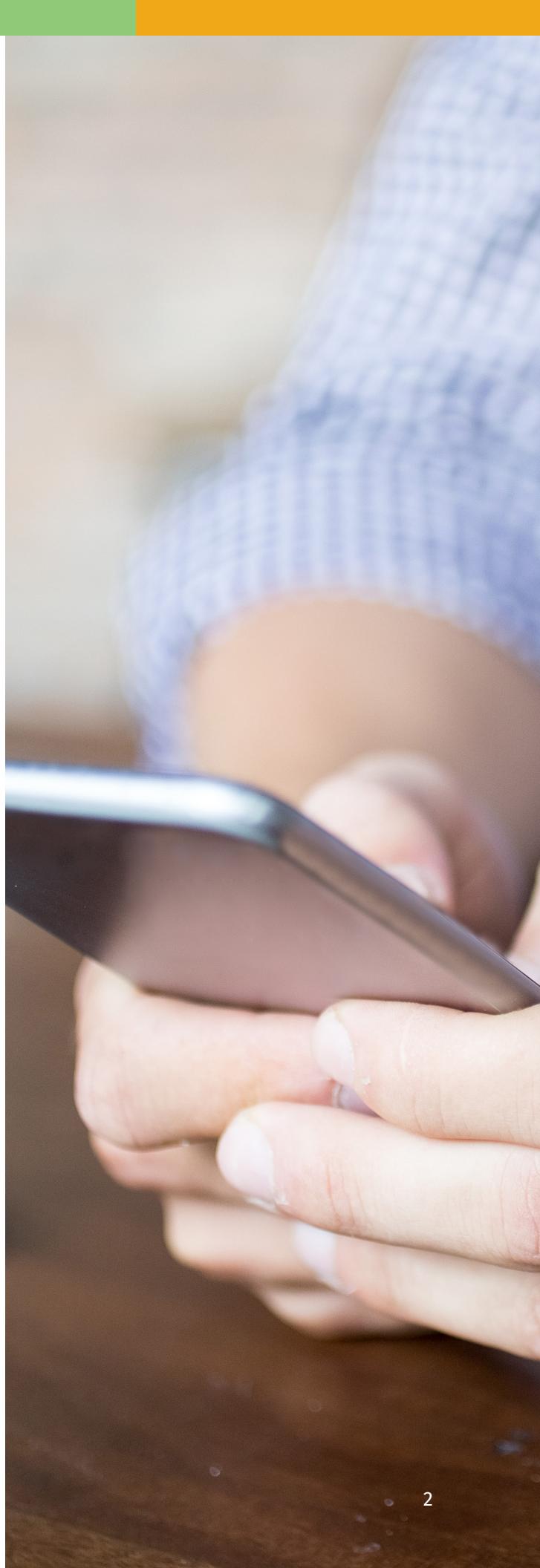
How many of you are in the process of updating old eLearning courses because they've become all but unusable with modern technology? I'd wager most of us are familiar with this scenario. But what if we started planning for things to change, rather than just playing catch-up?

The mobile mindset won't prevent you from ever updating a course again, but I guarantee it will make it a lot easier. When the mindset is followed, design becomes modular and flexible. Training looks great on a smartphone... and looks great everywhere else, too. And according to our research, learning and cognition are greatly improved by optimal visual design.

Are you ready to wow your learners?

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WHAT IS THE MOBILE MINDSET

At BLP, we coined the term *Mobile Mindset* to encompass a broader range of programming and design that's accessible to all organizations—the ones trying to roll out mobile now and those who still have hurdles to overcome.

A mobile mindset means thinking about programming and design in a way that is adaptable for the future. It leads to impactful mobile experiences, and it also improves the design of even your desktop eLearning so you're prepared for what-ever device/browser/version comes our way. The mobile mindset is designing for the challenges of mobile, whether you're creating mobile learning solutions or not.



77%

of Americans own smartphones

(Pew Research Center)

Time spent per day on mobile has reached

3 hrs 15 min

Compared to just 2 hours and 8 minutes on a desktop or laptop.

(eMarketer)

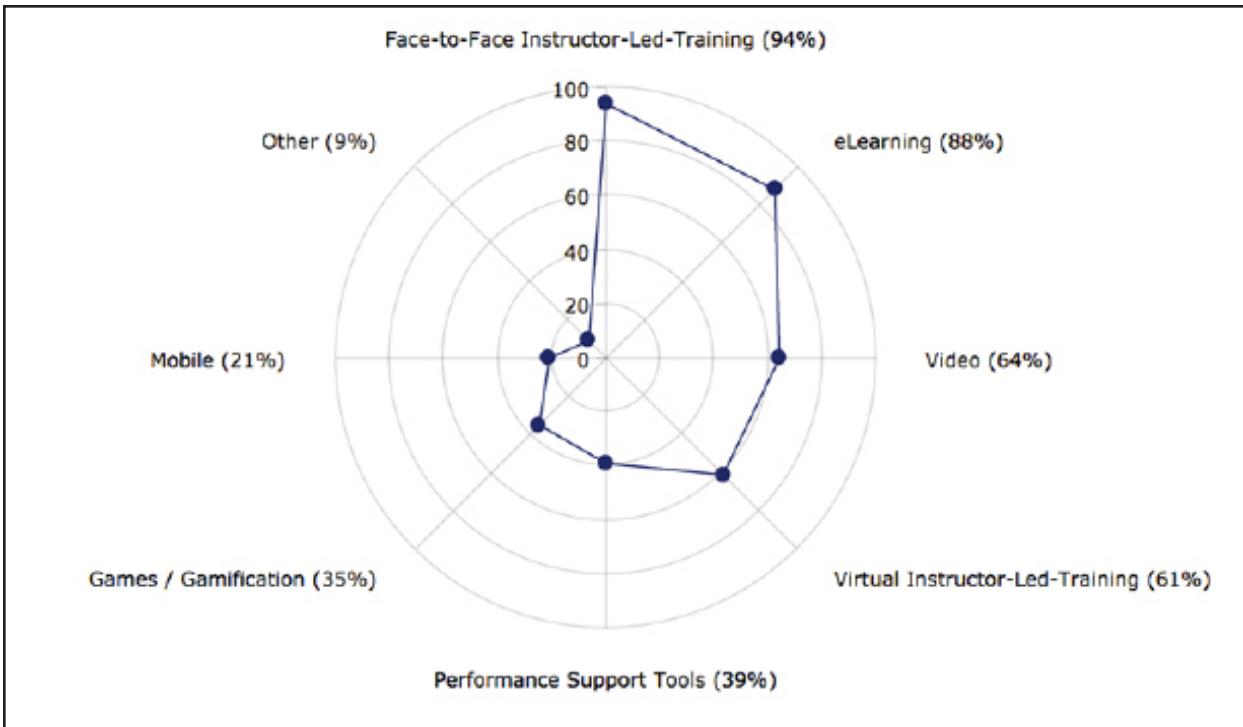
Why Does Mobile Matter? How Does It Make Training Better?

Consumers are mobile.

It's a sentence that absolutely cannot be ignored by any B2C organization. All the data shows that we have more phones than ever, we're on them longer, and we're increasingly using them to influence (or *do*) our purchasing.

With customers being mobile, businesses—and their marketers—have had no choice but to go mobile with them. This has spurred a whirlwind of innovation in mobile design. Innovation that B2B companies have mostly decided wasn't worth the trouble until recently.

In their efforts to play catch-up, many B2B organizations miss the bigger picture of mobile design. There is so much more to mobile design than just "making it work on a phone." Designing for small screens forces efficiency and organization. It cuts clutter and streamlines information. The mobile revolution actually made design *better for learning*. So far, L&D has missed out on much of that.



What methods will you (or your organization) use to deliver training in 2017?

From our 2017 *Learning & Remembering Report*

Consumers Are Mobile, but L&D Is Still Behind

The data shows that the training industry has been painfully slow to adopt mobile... and not adopting mobile has meant not adopting these new design improvements.

The chart above shows that the vast majority of organizations are barely tipping their toe in the water. That's not to say L&D departments haven't been trying! In a 2016 survey of 21 Bottom-Line Performance clients, **81%** said they would be somewhat likely or extremely likely to use a reinforcement tool that is intended for the smartphone. Yet in our *2017 Learning & Remembering Report Survey*, only **21%** of respondents said they planned to use mobile to deliver training in 2017.

So what exactly is holding us back? Let's take a look at some of the challenges we face.

CHALLENGES WE FACE

There are many reasons why adopting mobile learning has been a challenge for B2B organizations. It's important to address these elephants in the room before we explain how the mobile mindset can help every training department, even ones not planning on using mobile solutions any time soon.

Here are just a few of the major challenges to going mobile:

LMS Requirements

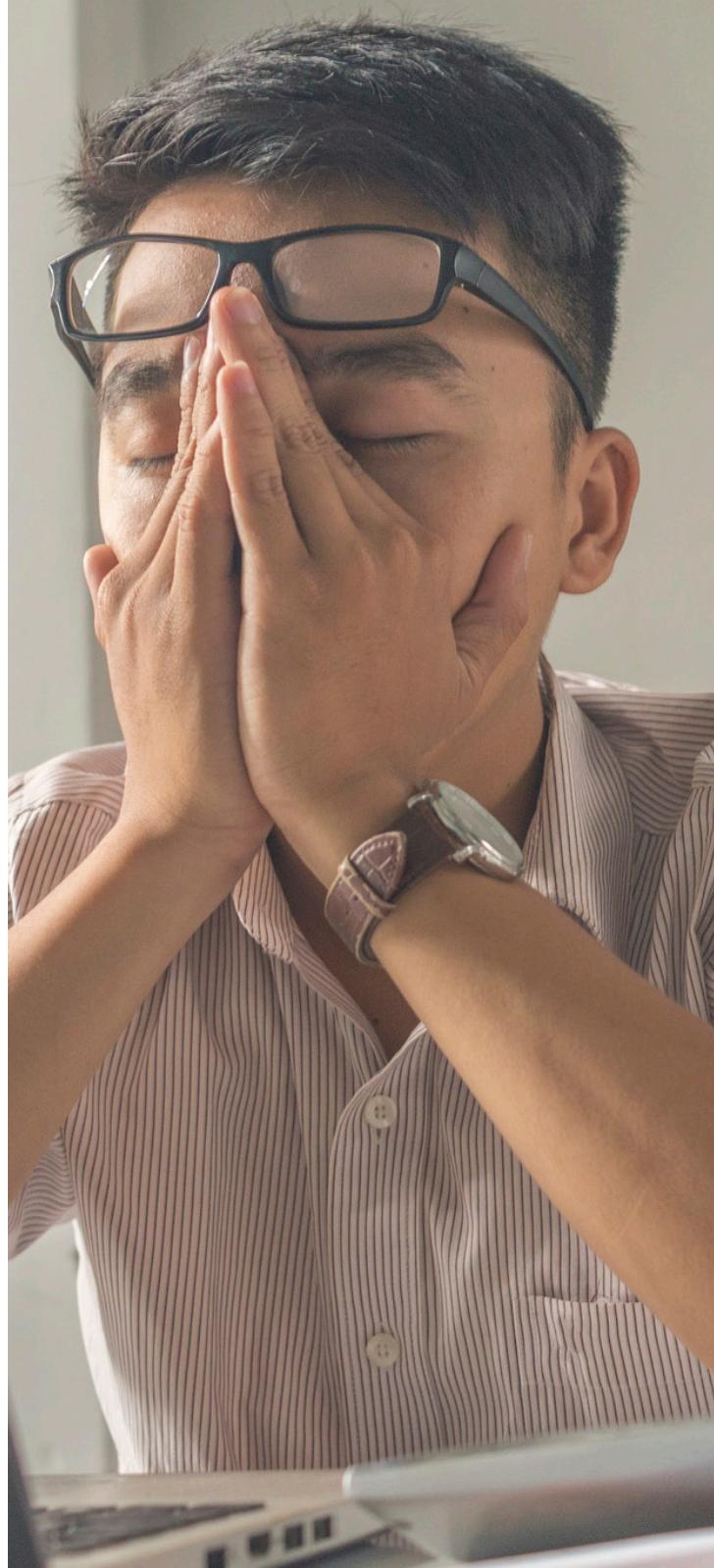
Old, clunky LMS's are unfortunately everywhere in training... and they hold back a lot of different initiatives, mobile being one of them.

IAP / Security

Many organizations are slow to approve mobile solutions because of real or perceived Information Asset Protection (IAP) and security concerns.

Limitations of Authoring Tools

The authoring tools we all use to create our eLearning courses are often ill-equipped for mobile design. Even the ones that have mobile publishing options are usually very limited and don't take advantage of the design and organizational benefits that mobile-first design offers.





Replacing Old, Outdated Training

When an organization already has a huge back catalogue of outdated courses, it can be enough work just to update the content without even touching the design. Going mobile can seem out of the question.

Lack of Bandwidth

Mobile may not be a priority in places where 3G is still the norm, or in large warehouses with barely any coverage at all.

Mobile Device Availability

Related to that last point, it can't always be assumed that phones are ubiquitous. Would you have to purchase new devices for everyone?

Learner Resistance

Do you know whether or not your learners actually *want* to access training on mobile devices? In some cases it is less convenient for them or even seen as an additional burden. Things can get complicated quickly with “Bring Your Own Device” (BYOD) models.

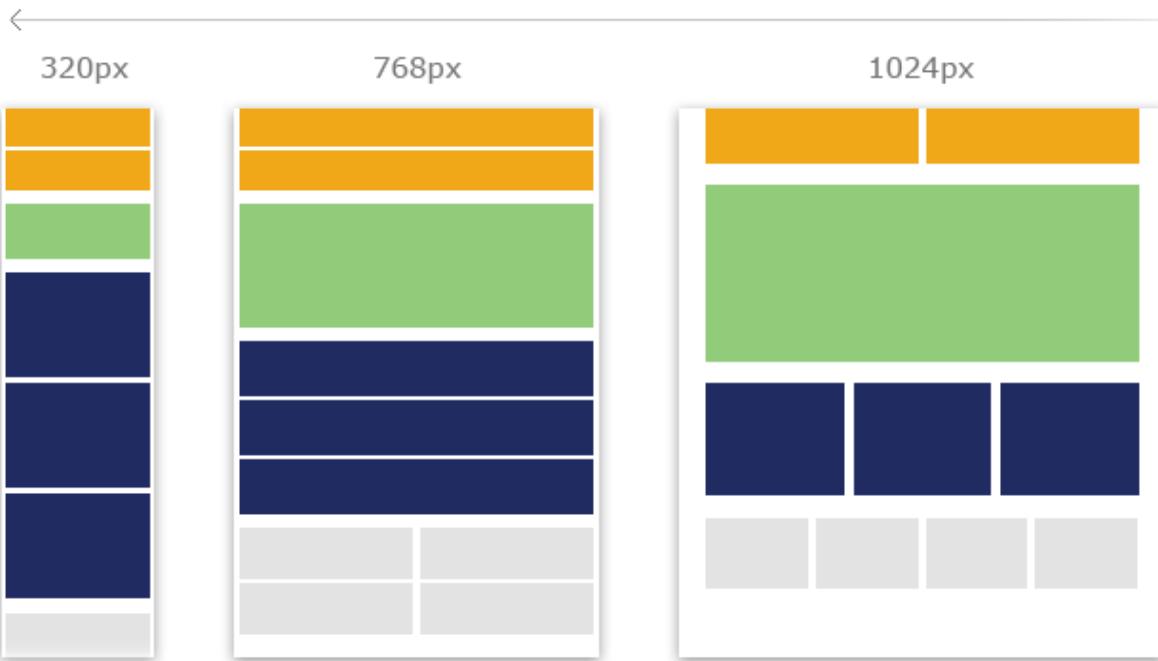
Depressing, huh? You may be asking why we'd point out these challenges while promoting our mobile mindset. The point we want to emphasize is simple, really. **The mobile mindset is *not* about technology. It's about delightful user experiences.** Whether it's mobile or not, these design principles can help you.

TERMINOLOGY & RESEARCH

There are graphic and web design principles at work in the mobile mindset. When I suggest using the mobile mindset to improve the design of your eLearning, I'm really suggesting you use the right combination of **Responsive Web Design**, **Gestalt Principles of Visual Perception** and **Design, Bootstrap Architecture**, and more.

Let's break down how these design techniques impact the learner experience. The research tells a compelling story.





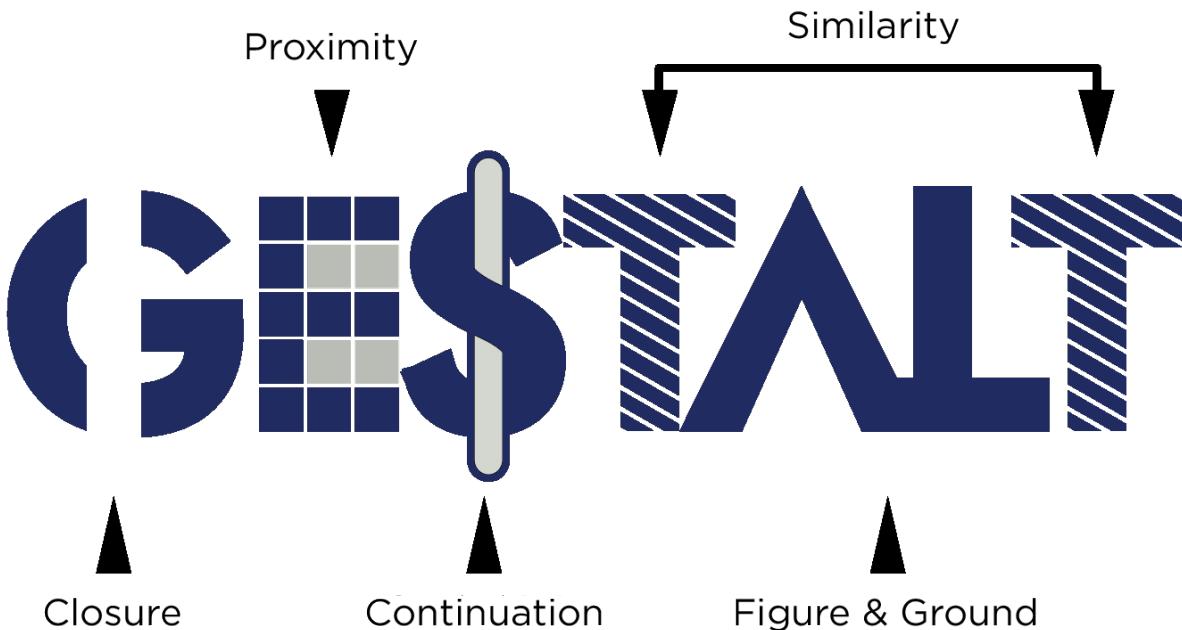
Responsive Web Design

Responsive web design (RWD) is an approach to web design which makes web pages render well on a variety of devices and window or screen sizes. A site designed with RWD adapts the layout to the viewing environment by using fluid, proportion-based grids, flexible images, and CSS3 media queries.

In L&D, we know that the best possible experience and the best possible environment are rarely one-size-fits-all. That's what responsive design is all about. To better illustrate, here's a quote from martial arts master, Bruce Lee:

"You must be shapeless, formless, like water. When you pour water in a cup, it becomes the cup. When you pour water in a bottle, it becomes the bottle. When you pour water in a teapot, it becomes the teapot. Water can drip and it can crash. Become like water my friend."

Your design must be like water. Use fluid grids and flexible elements. Use percentages, not fixed sizes. Use media queries to read device width and adjust accordingly. These are the fundamentals of responsive design.



Gestalt Principles of Visual Perception and Design

Gestalt principles are observations about the ways in which we group together various stimuli to arrive at perceptions of patterns and shapes.¹ These principles are essentially graphic design 101. They are an objective standard of design that has been developed and studied since the 1930's.

The principles are: Closure, Proximity, Continuation, Similarity, and Figure & Ground. (You may see more listed in certain academic situations, but for most purposes these five cover what we need for good design.) Each principle is loosely demonstrated in the graphic above.

Closure: The brain will fill in gaps to create a whole.

Proximity: The brain will group/relate objects that are close together.

Continuation: The brain will continue lines that are moving the same direction.

Similarity: The brain will group/relate items that share visual characteristics.

Figure & Ground: The brain will decode a relationship between the background and foreground, the filled space and the blank space.

I like to point out how beautiful, clean design can improve learners' reading comprehension in an eLearning course... but there's more that Gestalt theory can

offer learning designers. Gestalt is more than graphic design; it's an entire psychology of perception—and it can improve more than just the appearance.

Consider what Gestalt theory teaches us about Similarity. **Learning is facilitated if similar ideas are treated and linked together and then contrasted with opposing or complementary sets of ideas.**

It can also shape the way you challenge your learners, such as with quizzing. “The Gestalt theory of learning purports the importance of presenting information or images that contain gaps and elements that don't exactly fit into the picture. This type of learning requires the learner to use critical thinking and problem solving skills. Rather than putting out answers by rote memory, the learner must examine and deliberate in order to find the answers they are seeking.”²

And bringing it back to where we started, the graphic design of your learning solution (the proximity of text to images, the negative space, the clean lines) is yet another piece of the puzzle when it comes to facilitating proper learning. If you organize your information and images according to these principles, your learning solution will look beautiful *and* be more effective.

Researchers at Monash University in Melbourne, Australia have shown this in a study they conducted. They applied Gestalt Principles to the redesign of an instructional multimedia application, ‘WoundCare,’ designed to teach nursing students wound management. The new screen designs were then evaluated by asking students and others to compare the designs. The viewers were also asked to rate directly the value of using the eleven Gestalt design principles in the redesign, both for improving the product’s appearance and improving its value for learning. The evaluation results were overwhelmingly positive. Both the new design and the value of applying the eleven Gestalt laws to improve learning were strongly supported by the students’ opinions.³

Citations

1. “Gestalt Principles of Organization.” Psychology Encyclopedia. 2013. Accessed March 27, 2016. <http://psychology.jrank.org/pages/278/Gestalt-Principles-Organization.html>.
2. “Gestalt Theory (von Ehrenfels).” Learning-Theories.com. 2014. Accessed March 27, 2016. <http://www.learning-theories.com/gestalt-theory-von-ehrenfels.html>.
3. Chang, Dempsey, Laurence Dooley, and Juhani E. Tuovinen. “Gestalt Theory in Visual Screen Design: A New Look at an Old Subject.” Proceedings of the Seventh World Conference on Computers in Education Conference on Computers in Education: Australian Topics 8 (2002). Accessed March 27, 2016. <http://dl.acm.org/citation.cfm?id=820062>.

What this Means for Learning

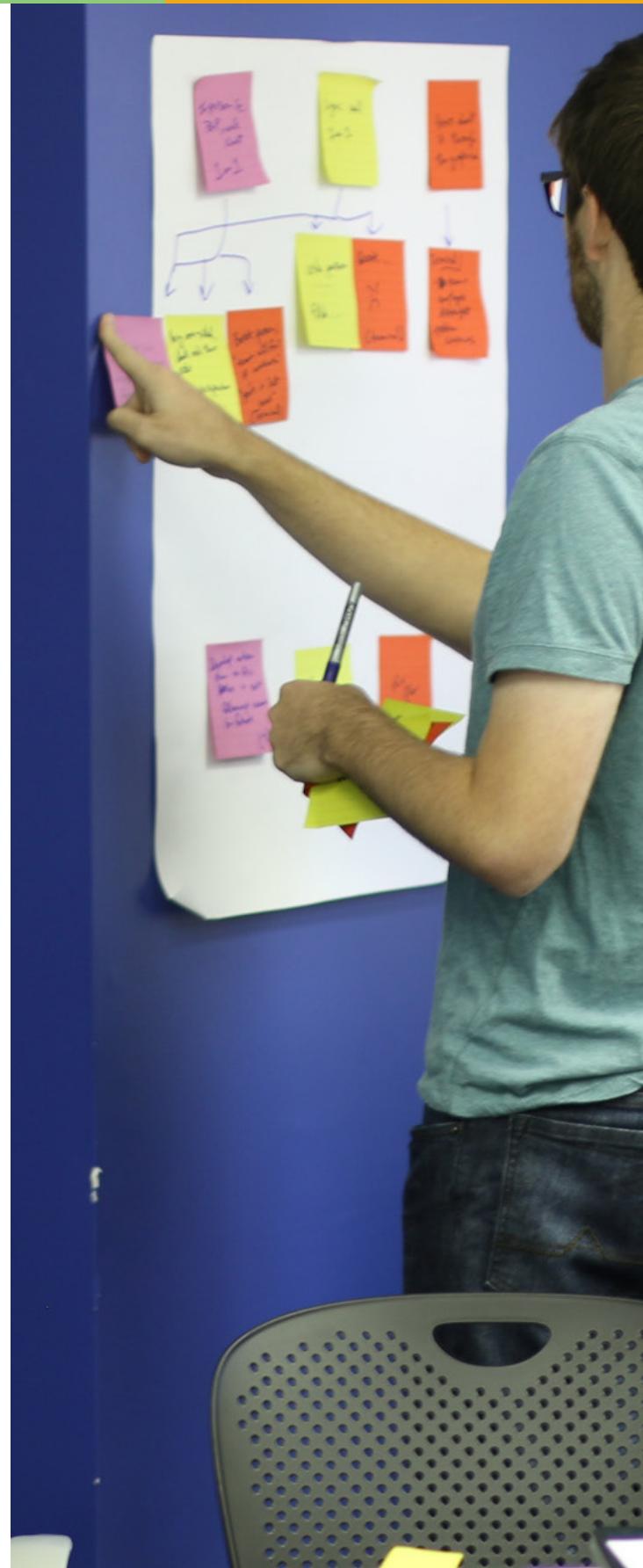
The graphic design IS a part of the learning. Visual perception cannot be separated from cognition.

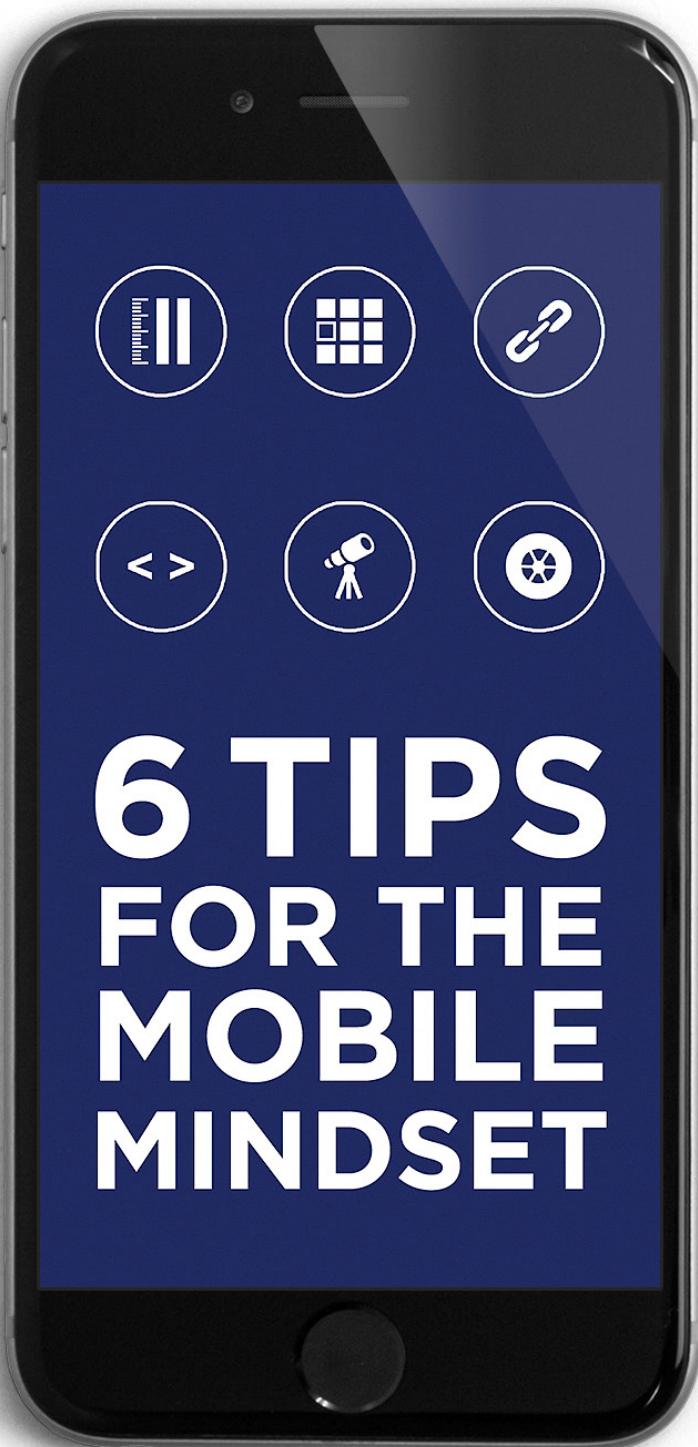
Things like responsive web design and Gestalt principles aren't just for making your learning solutions prettier, they make them more effective. It all goes back to the point that this is all about *good user experiences*.

This Is the Mobile Mindset

Excellent visual design matters even more on the small screen. So the mobile mindset is about designing for that most difficult challenge knowing that once it's a good experience on mobile, it can easily be a good experience anywhere.

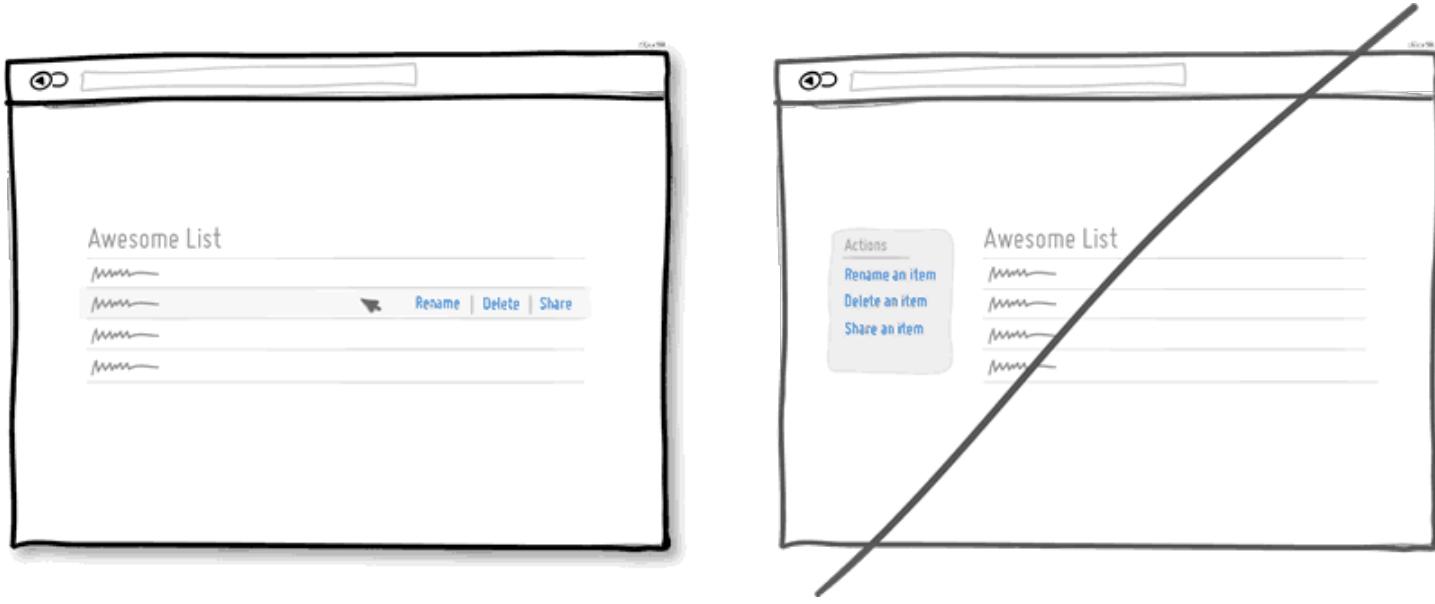
I look at RWD and Gestalt as the backbones of a mobile mindset. Clean. Flexible. Organized. Designing with these traits in mind will give your learners a better user experience. They'll lead to a better learning solution.





LET'S PUT IT ALL TOGETHER: 6 TIPS FOR THE MOBILE MINDSET

Now that we've gone over the high-level aspects of the mobile mindset, it's time to dive into some actionable advice. Here are six tips for implementing a mobile mindset in your training solutions.



1. Be conscious of your space.

Space is a precious resource on a mobile device. We love that our smartphone is small enough to carry anywhere in our pocket, but that tiny screen doesn't allow for much content at once. That means you need to organize and prioritize your content. I'll say it again because it's so important: **organize** and **prioritize**.

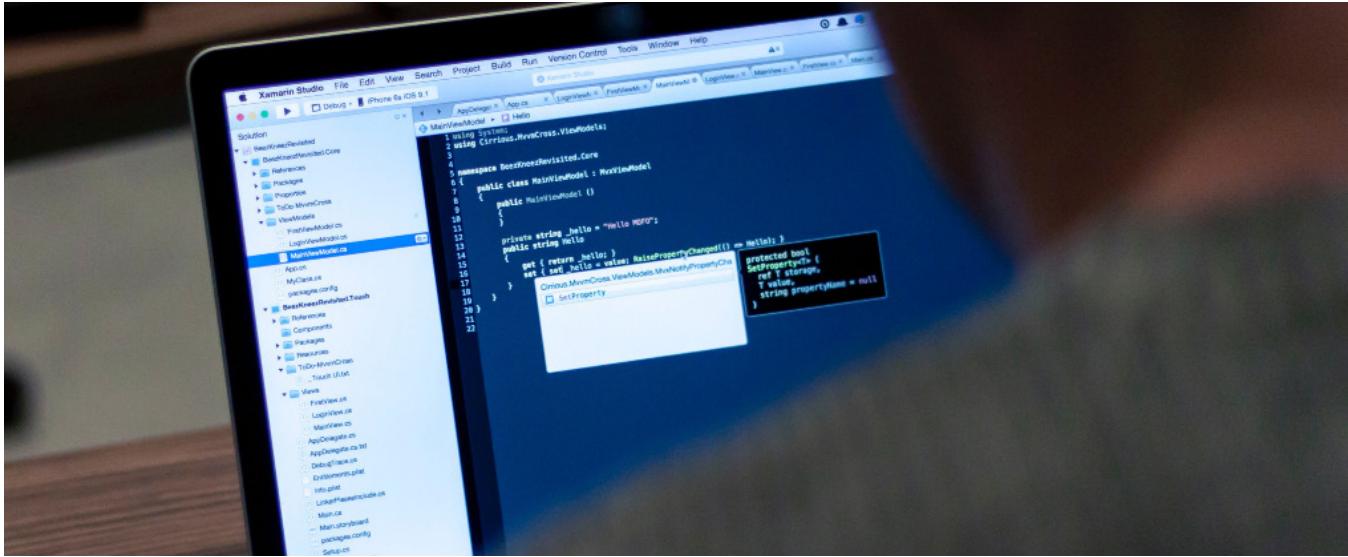
You need to group "like" things together and use clear space to separate individual ideas. You need to emphasize important points with callouts or highlights—and please remember, if you emphasize everything, it's basically the same as emphasizing nothing. If you design all your courses—mobile or desktop—with a better use of space, you'll see an improvement in training outcomes and learner adoption rates.



2. Think modular and flexible.

As I mentioned earlier, a major part of designing for mobile devices is Responsive Web Design—and the ideas behind RWD are integral to the mobile mindset. Group your content in such a way that when it is moved around, everything that's supposed to be together, stays together. That's what it means to be modular and flexible.

Design and program in a way that allows you to remove a section without breaking the entire thing. Build in a way that allows your content to respond to different screen widths. Build in a way that other people can understand your code.



3. Think beyond authoring tools.

Authoring tools are the ideal tool for many situations. They've become much easier to use over the years, and now designing an eLearning course can be as simple as designing a PowerPoint. Okay, that might be an exaggeration, but authoring tools have definitely done some good things for the industry.

Unfortunately, authoring tools come with a few serious limitations. Besides needing a license just to be able to edit a course, authoring tools often inject strange code when they're published that can create time-consuming and completely unpredictable problems. They rely on cumbersome shells and frames to display content (unless you have some serious hackers on your team). Developers and instructional technologists like ours know how to navigate these challenges, but they can create very real challenges if you are not prepared for them.

Authoring tools have become so ingrained in L&D that we often forget you don't have to use them! There are other ways to build online learning. Which brings me to my next point...

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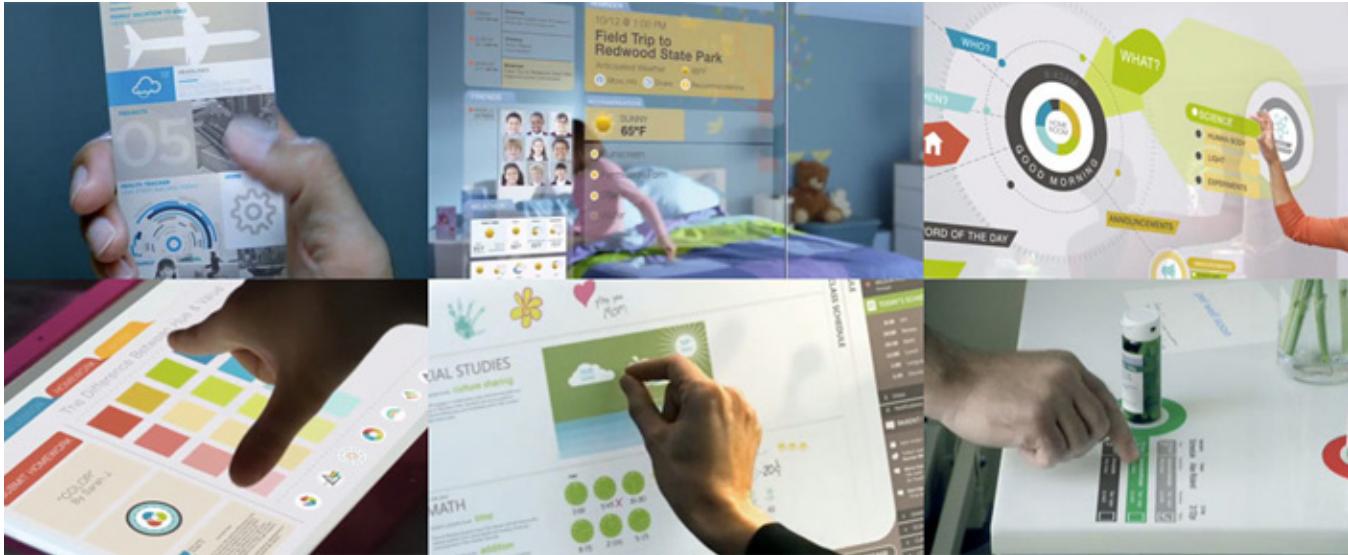
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4. Consider the website as a training tool.

One alternative to an authoring tool is something you may never have considered before: a website.

Have you ever visited a beautiful website designed to market something? Nowadays, these sites can have questionnaires, games, interactive content, and tracking like you wouldn't believe. So why can't we harness this power for eLearning? Well... you can. And it's easier than you might think!

There are a few different ways to approach it, too. You can build from scratch with HTML/CSS/Javascript. You can use an open source framework like WordPress, complete with an extensive user community and easy-to-use plugins. I've even heard of teams using Adobe Muse to build web pages for eLearning!



5. Design with the future in mind.

This one might be the hardest to follow, because who has time to think about five years from now when there are fires to put out today?

But I want to encourage you to design in such a way that things can adapt when technology changes in the future. This ties back to a lot of my previous points: being modular so that content (especially interactive content and video) can be easily swapped or changed, coding in such a way that a newcomer can read it, and occasionally leaving the authoring tool behind.

All of these are ways to design with the future in mind. Think of it this way: are you building a house of cards?



6. Take the training wheels off. Learners can handle it.

As a designer, this final tip is my favorite. I understand why we needed “click the X to the left to exit the window” in the early days of the Internet... but it’s 2017. Learners have matured in their technology use. Chances are everyone who reads this eBook has used a phone at some point to navigate the internet. Probably even today.

(Most) People understand where to click by now. They understand exit icons and they understand the “Back” button. We no longer need to waste so much space and effort on these things. Instead, we need less cognitive load and more room for users to learn what they need to know. And we can achieve this through better design.

Yes, there will always be exceptions... especially in certain industries. But in general, it’s safe to embrace a little minimalism. Learners can handle it.



About Jake Huhn

Jake Huhn is the Senior Marketing Technologist at Bottom-Line Performance. In this role, he manages the design and technology for the marketing department, programs eLearning apps and websites for clients, and assists with company IT needs. He has spoken at ATD ICE and ATD TechKnowledge about mobile learning design.



About Bottom-Line Performance

Bottom-Line Performance is a learning design firm serving a wide range of corporate clients. Since 1995, we've helped clients choose the right learning solutions for their learners, while also helping them to design and develop learning tools effectively. Areas of focus include product launches, customer training, internal process training, safety & compliance and more.



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