

# RESPONSIVE ELEARNING DESIGN AND DEVELOPMENT



# CONTENTS

RESPONSIVE DESIGN: HOW IT ALL BEGAN .....	2
RESPONSIVE DESIGN: WHAT IT IS .....	2
RESPONSIVE DESIGN IN ELEARNING .....	2
RESPONSIVE DESIGN: HOW TO USE IT .....	3
DEFINING THE LEARNING NEED .....	3
DESIGN BITE-SIZED LEARNING COMPONENTS .....	4
ADAPT THE DESIGN FOR A CONSISTENT LEARNING EXPERIENCE ACROSS DEVICES .....	5
ATTENTION SPAN AND CONTINUITY .....	7
BENEFITS OF RESPONSIVE ELEARNING DESIGN .....	7
SCREENSHOTS .....	9

## Responsive Design: How it all began

In 2012, Google released a report on the emerging use of multiple devices, which stated that 90% of our daily media interactions are screen-based, with our online time primarily spread between four devices—television, desktop PCs/laptops, tablets, and Smartphones.

Computing trends are changing at a breakneck speed. A report by mobile giants Ericsson stated that by 2015, 80% of the populace will be accessing the Internet from mobile devices.

What does this mean for those who create and deliver online courses? Simply put, the need to develop learning solutions that work uniformly well on all devices. Enter Responsive Web Design and the use of responsive design in eLearning.

## Responsive Design: What it is

Responsive design does not target particular resolutions or screen sizes; rather, the aim is to design for multiple screens in such a manner that content responds to the target environment and reflows to fit into different layouts and treatments on the basis of the display size and type.



Simply put, a Smartphone screen has less space than a PC screen, so you cannot fit everything onto it—at least not in exactly the same way. Besides, people using mobile devices may be on the move and are likely to experience connectivity issues. This can lead to a lag in downloading content. A responsive design framework considers all these issues and ensures a graceful alignment of onscreen content and layout elements depending on the target device.

# Responsive Design in eLearning

The factors that have driven the need for responsive design in eLearning include:

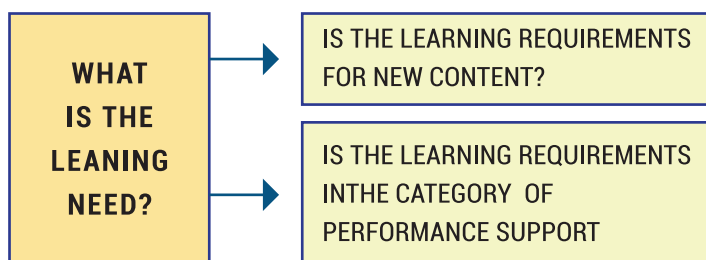
<b>Device availability</b>	Multiple devices have multiplied learners' expectations. Mobile populations demand both flexibility and convenience and expect content to fulfil two conditions:  <b>The point-of-need, and The time-of-interest.</b>
<b>Device Orientation</b>	Most mobile devices come with dual orientation. Learners therefore expect their content to align as per their orientation choice—portrait or landscape
<b>Bring your own device (BYOD)</b>	<p>Another trend that has seen a rise in recent years is people's insistence on bringing their own devices to the workplace or to centres for learning. Schools and universities have been encouraging students to bring their own devices to the campus to better exploit the potential learning, interaction and even collaboration experiences that these devices can afford. Companies too support this trend and promote it to save both time and money.</p> <p>The practice of bringing your own device, popularly known as BYOD, allows individuals to take eLearning courses on their phone, for example, while on their way to the office or a class, continue the course at their desk and then complete it on their tablet while returning home.</p>

## Responsive Design: How to Use it

Like most other forms of learning solutions, there are some key aspects to be considered when creating a storyboard for a mobile learning solution.

### Defining the Learning Need

The first question that should be answered before taking a decision to design for mobile devices is to define the learning need.



If it's a new learning requirement or need for advance learning, the design needs to encompass all the components of the learning cycle—strategies for grabbing learner attention, ensuring content relevance, and building learner confidence and satisfaction. And it will be necessary to create examples and scenarios to set the context, the context-setting examples and examples and analogies for further explanation, and knowledge checks and assessments to test learner understanding and retention.

However, if the learning intervention is for reinforcement of learned content, it is necessary to understand the purpose of that learning. Do learners require a quick refresher on the go? If yes, then the design can be rather direct—jumping into the content and presenting quick nuggets of relevant information for quick reference and recall.

Or, if the objective of the learning is to provide practice on the learned content, it would warrant a design that involves interactive practice exercises, quiz, or even games.

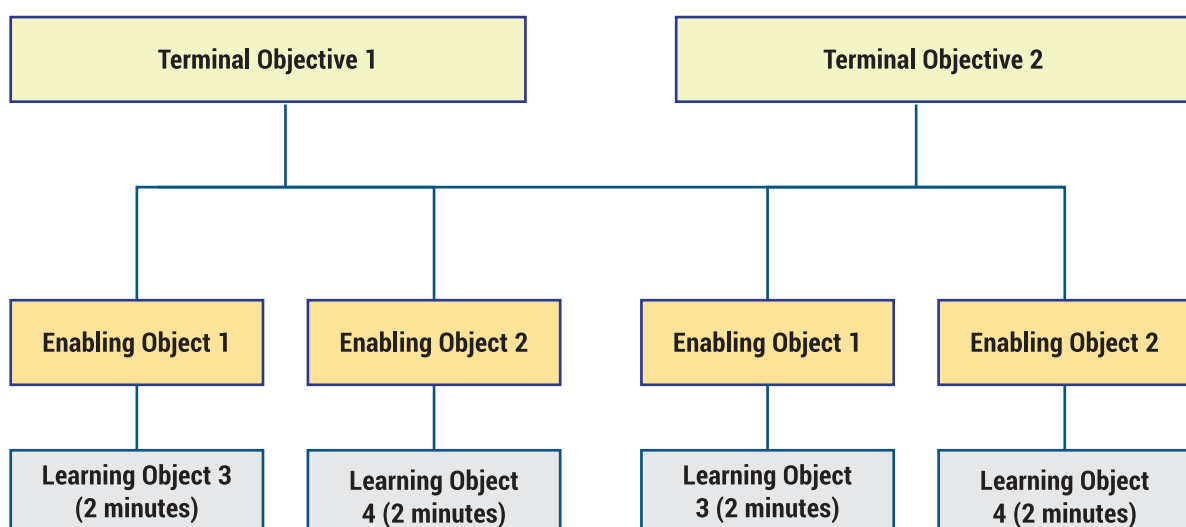
Studies and experts indicate that since tablets and iPads have larger resolutions, these devices are more suitable for first time learning. Mobile devices work well for providing performance support and for reinforcement of the learning.

## Design Bite-Sized Learning Components

The big challenge in mobile learning in designing for point-of-use. When would the learner typically access this learning component—while travelling, during idle wait times, or when a quick refresher is needed?

In all these scenarios, one thing is common—that learners only have a small pocket of time where they will reach out to the learning component before their attention is taken up by something else.

Translating this into design means breaking down the learning into small, to-the-point, bitesized components. The clarity and completeness in defining the Terminal and Enabling objectives goes a long way in establishing this structure.



As shown above, each terminal objective needs to be broken down into multiple enabling objectives, and each of those enabling objectives needs to map to one learning component, ideally a 2-3 minute learning nugget.


Instructionally, this requires a design approach same as used in the Learning Object model. Each component needs to be focused on one Learning Objective and created as a single information object. The object should map to one information type, and this information should be supported by crisp, instructionally sound graphics and visuals to enhance engagement and knowledge retention.

## Adapt the Design for a Consistent Learning Experience across Devices


Responsive eLearning design is an approach to design that ensures a single version of an eLearning course can provide a consistent viewing experience across a variety of different devices, from desktop monitor to Smartphone.

Example:

**Tablet: Landscape**



# Managing Gender-based Violence in Emergencies




Understanding Gender-Based Violence

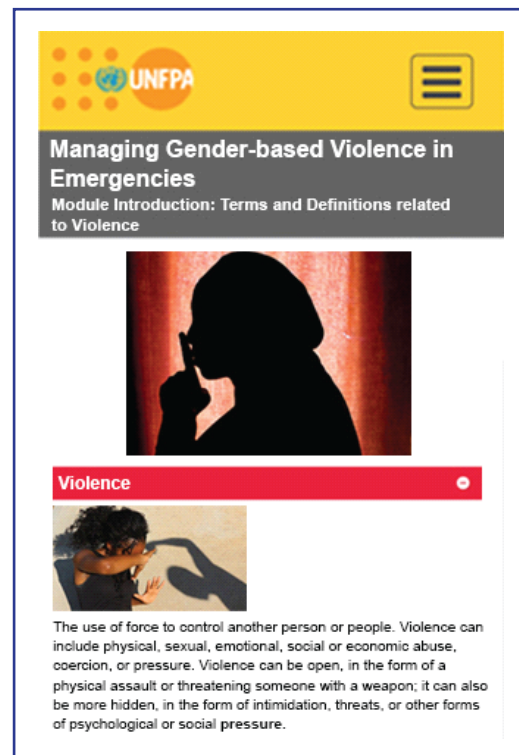
Module Introduction: Stop and Reflect

In order to begin to effectively address the issue of gender-based violence, we must first be aware of our own preconceived ideas about women, girls, men, and boys in the context of emergencies.

Before we begin, take a minute to reflect on your own attitudes. Read each of the statements below and tick whether you agree, disagree or are unsure about what is written.

- Men are better than women at making important decisions during times of crisis.
- Men are responsible for protecting their wives and children from harm during emergencies.
- Women should always defer to the decisions of their husbands or other male relatives regarding when it is safe to return home or resettle.
- Men should be the primary income earners of the family, especially during displacement.
- A man should always know what to do and should never show his weakness, even if he has experienced traumatic events during the crisis.
- The focus of our prevention programmes with men, as the primary perpetrators of GBV, should be on attitude and behaviour reform.

 Print  Glossary  Resources  Pause  Replay   2 of 15 00:16 / 00:24



Mobile:

## Portrait & Landscape

Therefore, after the course structure is in place, it is necessary to visualize how these lessons, topics and pages will appear to the learner on a tablet or a Smartphone. A basic understanding of the responsive design framework helps in mapping the course structure to it. It is therefore necessary to break down the content and map it to the design structure supported by the eLearning authoring tool in use.

## Example:

While designing the detailed interactivities for the course, it is important to know the kind of templates supported by the chosen authoring tool. Some points to consider are:

- Avoiding interactions like drag-and-drop that aren't best suited for small screens of mobile devices
- Avoid designing heavy graphics, animations, or videos that might create a problem while streaming.
- Review the need for voiceover critically. Unlike a regular learning WBT, each component or page need not be supported with audio.
- Balance push vs pull components to give learners more choice and control in the learning. For example, designing essential learning components that the learner must take, as part of the push strategy; while creating additional components such as videos, cheat sheets and quizzes that are accessed by learners on their discretion, as part of pull strategy.
- Explore templates that work well on mobile devices.



## Attention Span and Continuity

The attention span of the mobile learner is another issue that needs looking at, as are the limitations of learning 'on the go'. Learning recall and retention can be a challenge in the case of mobile learning programs because as opposed to regular desktop learning, here the learners are looking at the modules not from the comfort of their work desks or homes, but most probably while travelling and looking at other appointments. Therefore, there are bound to be distractions, interruptions and sudden closure leading to short attention span from learners.

Additionally, there is the problem of continuity. The learner might not remember what they had read last when they return for the next session. As such, each nugget of learning needs to be short, relevant, precise and most importantly focused on one learning objective, each existing as a standalone component.

## Writing Style

Last but not the least, the writing style for mobile storyboards needs to be adapted, considering the special requirements and limitations of the medium. Some simple guidelines to remember include:

- It is good to use strategies that are appropriate for mobile platforms—crisp graphic, statistics, or a question—would work as an attention grabber but heavy animations with background music will not work
- Write scannable content that can easily be assimilated through speed reading, instead of focused reading.
- Writing crisp, short and precise sentences instead of paragraphs of text.
- Using images, animations and infographics to convey meaning instead of writing content.
- Avoid cross-referencing i.e. do not use transition text typically used in WBTs that refer to previous topics or content learned, this will ensure that the component is standalone.
- Provide links where more information is needed.

## Benefits of Responsive eLearning Design

A responsive eLearning design offers the following benefits:

<b>Multi-Device Ready</b>	Responsive eLearning dynamically responds to varying screen sizes. HTML 4/5 architecture ensures support for a wide variety of devices and platforms, and lower browser configurations. Responsive output can also be configured for LMS delivery, or can be packaged to be delivered as an app.
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<b>Seamless Learning Flow</b>	A responsive design allows the presentation of content in a structured manner, which in turn ensures that the learner flows naturally through the course. Thus the learners can have a very smooth and optimized experience on their mobile device as well as on their desktop PCs.
<b>No Redundant Clicks R</b>	Responsive eLearning goes well with device-specific actions like swipe, slide, pinch, wave or shake to allow learners to navigate through the course in different ways.
<b>Continuity Across Devices</b>	Greater and easier accessibility was one of the primary reasons for the development of responsive design. Responsive eLearning allows learners to start a course at their desk, continue it on their phones and complete it on their tablets.
<b>Cost and Time Effective</b>	The principle of responsive eLearning is 'one size fits all'. A single responsive design can be launched on multiple devices. And managing and maintaining a single course with minimum content is an uncomplicated task, both in terms of time and money.
<b>Ease of Reporting and Tracking</b>	With a single responsive course, a single condensed report can be obtained which tracks the user's journey across devices.

## Screenshot

The screenshots below indicate how a layered interactivity (in this case an accordion menu) appears on a desktop computer, tablet, and Smartphone in both portrait and landscape modes.

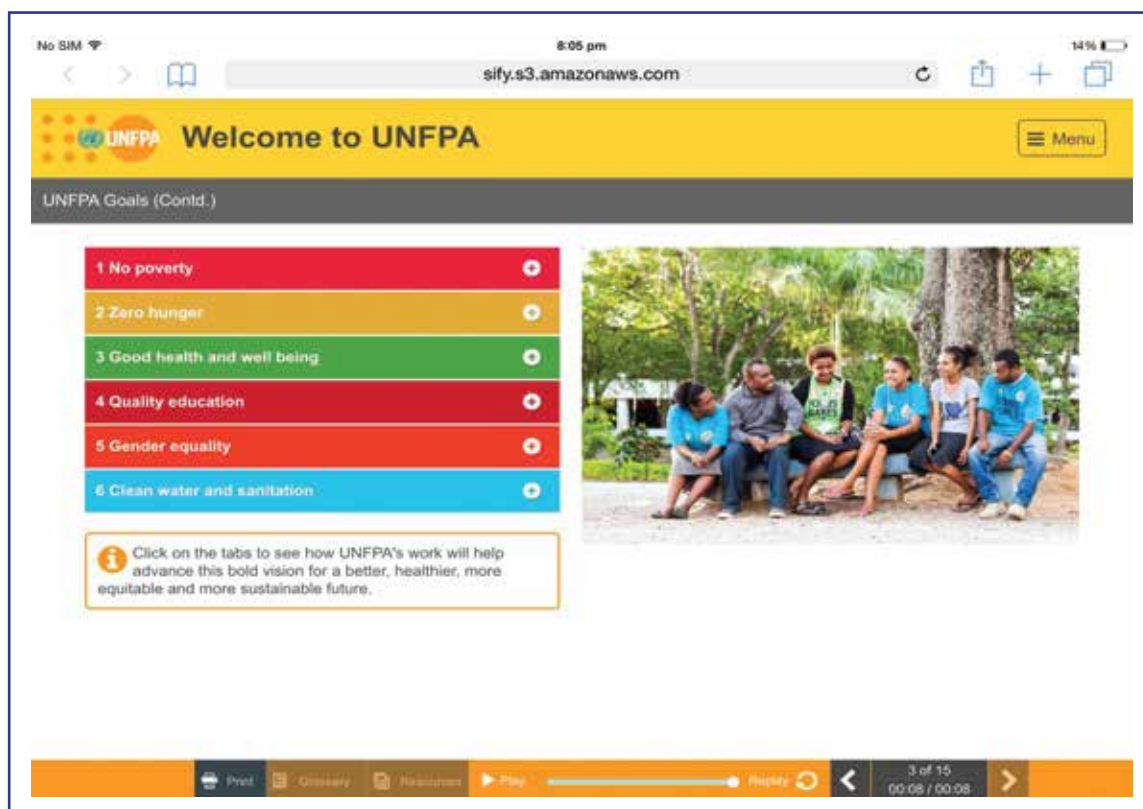
### Desktop:



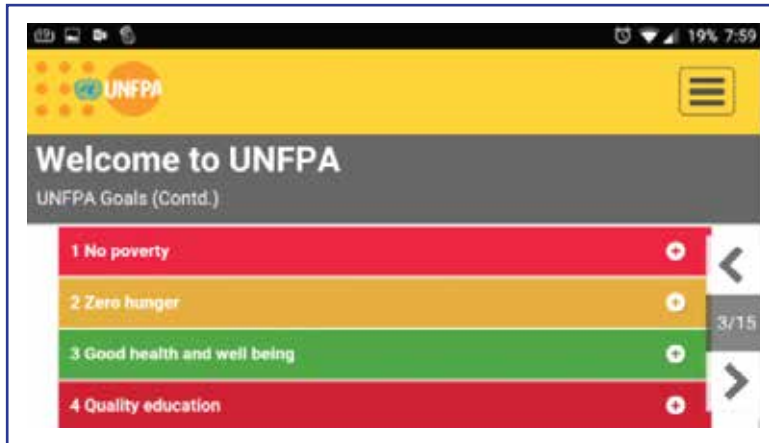
## Tablet: Portrait



## Tablet: Landscape



## Mobile: Portrait & Landscape



## About Sify eLearning

As innovative leaders in new technology and interactive eLearning, we create highly immersive, and engaging learning experiences. With over a decade of experience in generating customized learning solutions for Fortune 500 and Small and Medium-sized companies, sify eLearning is the choice for industry-relevant training projects. Our solutions align with your organization's business and learning goals, to affect change and improve employee performance. Our extensive experiences across industries have allowed us the benefit of acquiring unique perspectives and interpretations, while thinking outside-the-box to create highly customized projects.

## About the Author



**RESHMA  
SANYAL**

**Instructional Designer**  
**Sify eLearning**

**Email:** [reshma.sanyal@sifycorp.com](mailto:reshma.sanyal@sifycorp.com)

**LinkedIn:** <https://www.linkedin.com/in/reshmasanyal>

Reshma has fourteen years of experience in the publishing and eLearning industries, encompassing roles as varied as Features Writer, Web journalist, Sub-editor, and Instructional Designer. As a Sify eLearning Instructional Design manager she has handled the instructional design, SME coordination, and customer communication for over 200 hours of elearning content. She has overseen custom training and eLearning projects for development agencies of the United Nations, providing her with considerable onsite exposure and experience to UN agency culture and working styles across the globe

Furthermore, she has developed trainings for BFSI customers, including Allianz Insurance, Franklin Templeton Investments, WellPoint Insurance, MassMutual Insurance, Standard Chartered Bank.

She is also a certified online course facilitator from the Arts Institute Online (AIO), conducted by the Socrates Distance Learning Technologies Group, a division of Education Management Corporation (EDMC).

***We are here to help. Contact us for a demo or consultation.***

**Sify eLearning**

[learning.sales@sifycorp.com](mailto:learning.sales@sifycorp.com)

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