

## CO3707 Assignment (Stage 1) User Need Analysis

### Generation 60+, Kitchen & Bathroom Safety

Focus on kitchen and bathroom safety for generation 60+ with and without disabilities! Develop a Website instead of a Flash Application for accessibility reasons.

	Area of interest	Analysis results	justification	Some design implications
	<b>User Group –Elderly people</b>			
1	Age	60+	Bathroom / kitchen very dangerous for older people -> Website No upper age limit!	Keep it simple
2	Gender	Male and Female	Both genders have to use a bathroom. Kitchen Safety is maybe more important for women but the topic should be available for both genders.	Do not design for a particularly gender
3	Disabilities	Blind/Short sighted, Deaf or Hard of Hearing, Physical Disabilities and Motor Impairments	1 in 2 Americans 65 years and older has a disability (Paciello, M. G. (2002) Web Accessibility for People with Disabilities) Therefore, accessibility is important at the age of the defined user group.	Comply with all legal mandates and standards, Use W3C WAI Standards for Webdesign, Publish information also in alternative ways. Consider screen readers! Do not use small fonts! Ensure nothing is relayed by sound alone! Check keyboard usage!
4	Educational Background	No special education	No further education should be needed to access and understand the information	Very different background – use simple language!
5	IT Skills	Everyone who knows how to use a browser	All youngsters have IT skills	According to the Government guidelines all school pupils must do IT

6	Cultural, Linguistic and Social		The Website is designed for UK based people. There are different issues in other countries e.g. two water tabs, so it is only useful for people living here.	Use English as language set
7	Motivation		Available 24x7 – 'any time, any place, any where'	Availability at home, possibility to print, look up things, fun by taking the quiz
8	Environment	Home	Very different knowledge levels about computers / web browsing! All kinds of access speed / processing power!	No special downloads should be needed. Optimize for small bandwidth!
	<b>Other stakeholders</b>			
	Age	Children: 30+/-	Want to make their parents home more safe for them	
		Grandchildren: 15+/-	Show their grandparents how to use computer/internet	
	Gender	Everyone	Male and female alike	
	Disabilities	Every stakeholder	See 3	
	Educational Background	Children	Vary from no qualifications to PhD	Cannot assume any qualification level
		Grandchildren	Low level because of age but maybe computing skills	
	Cultural, Linguistic and Social	Every stakeholder	See 6	
	Motivation	Government	A wider understanding of health and safety issues	Internet as a cheap possibility to reach a lot of people
		Children	Safety for parents	
		Company I work for	Develop a platform for image reasons	

			and promote products	
	Environment		See 8	
	Background Knowledge	Children	Knowledge may differ	Do not make assumptions on the level of knowledge.
		Grandchildren	Knowledge may differ	Do not make assumptions on the level of knowledge.

- Accessibility
  - Optimize to W3C Accessibility Standards (barrier-free)
  - Optimize for screen readers
  - Technical
    - CD with “autostart” of the HTML page in default browser
    - Online Website
  - Optimized Print View
  - Keyboard only usable
- Usability
  - Commonly used Icons / Positions
  - Colour guided Navigation
  - Flexible Font Size
  - Provide larger targets
  - Avoid fancy font types / italic types for better reading on screens
  - Avoid technical terms
  - Links should be identified in a consistent and obvious way
  - Visited Links should change colour
  - Links should have a hover effect
  - Users should not need to install software (Acrobat Reader for example) to access information
  - Don't rely on color alone
  - Use markup and stylesheets properly
  - Clarify natural language usage
  - Design for device independence
  - Provide context and orientation information
  - Provide clear navigation mechanisms
  - Ensure that documents are clear and simple
- Multimedia
  - Link MP3 files to listen to content
  - Pictures / Animations (Creative Commons)
  - Videos with SAMI subtitles
- Education
  - Flat learning curve

## The needs

### Generation 60+ wants to:

Find out about health and safety topics

- Find out about kitchen safety

  - Find out about danger zones

  - Find out about making kitchens safer

    - Find out about where to get safety products

    - Find out about companies which do kitchen safety improvements

  - Find out about what to do in case of an accident

  - Find out about their kitchen safety situation with a checklist

- Find out about bathroom safety

  - Find out about danger zones

  - Find out about making bathrooms safer

    - Find out about where to get safety products

    - Find out about grab bars

  - Find out about what to do in case of an accident

  - Find out about their bathroom safety situation with a checklist

- Find out about statistics

Find out about where to get more information about health and safety

- Find out about links

Find out about accessibility of this website

- Find out about standards used

Find out about the motivation of creating this website

# Design Justifications

A = Accessibility, U = Usability, M = Media

U1, A1, M1: Commonly used position, Image with ALT-Text, Logo of Website

U2, A2, M2: Commonly used position – famous icons, Link to MP3 Content

U3: More Information about the content of the Page

U4, U4, M4: Dot indicates current location, hierarchical concept & right side of layout commonly used, sub navigation hidden

U5, A5, M5: Commonly used symbol, same position on every screen, content based, Hints can be links, pictures, etc.

A6, M6: Indicate web standard usage, link to w3c

U7: indicate end of content / page

U8, M8: Quick links from Home to content, buttons with underlined links, colour guided navigation

U9, A9, M9: Content – easy to read font, underline links and use right colour for topic, pictures and animations possible

U10: Content Headline, Keyboard Shortcut

U11, A11, M11: commonly used navigation bar, colour guided, location indication, hover effect

U12, A12, M12: Buttons to step through content

U13, A13: Answers, usable with keyboard and clickable

U14, M14: Feedback

U15, A15. M15: Forward Button to get to next question

The screenshot shows a website titled "Kitchen & Bathroom Safety" with a navigation bar containing "Home", "Kitchen", "Bathroom", and "Quiz". The main content area has a heading "Welcome to our Kitchen & Bathroom Safety Guide!" and text about the guide's purpose. There are buttons for "Kitchen" and "Bathroom" with "Start now" links. A "Quiz" button is also present. The footer includes W3C and WAI-AA logos. Design justifications are labeled as follows:

- U1 A1 M1: Kitchen & Bathroom Safety (Title)
- U2 A2 M2: Listen to this Site, + Increase font size, - Decrease font size (Top right)
- U3: Knowledge Training for the 60+ generation (Sub-header)
- U4 A4 M4: Home, Kitchen, Bathroom, Introduction, Danger Zones, Safety Products, Summary, Quiz, Links, Contact/ Credits (Left sidebar menu)
- U5 A5 M5: ? Help & Hints (Left sidebar menu)
- A6 M6: W3C XHTML 1.0, W3C CSS, W3C WAI-AA WCAG 1.0 (Footer)
- U10: Welcome to our Kitchen & Bathroom Safety Guide! (Main heading)
- U9 A9 M9: This Guide provides you with afety Knowledge Training opti-mized for the 60+ generation. (Text)
- U11 A11 M11: Home, Kitchen, Bathroom, Quiz (Navigation bar)
- U8 M8: Quiz (Quiz button)
- U7: (Indicated by a line at the bottom of the page)

U1 A1 M1

U3

# Kitchen & Bathroom Safety

Knowledge Training for the 60+ generation

Listen to this Site  
+ Increase font size  
- Decrease font size

U2 A2 M2

U11 A11 M11

U4 A4 M4

**Home**  
Kitchen  
Introduction  
■ Bathroom  
Introduction  
Danger Zones  
Safety Products  
Summary  
Quiz  
Links  
Contact/ Credits

U5 A5 M5

**? Help & Hints**  
This is a Helptext  
which gives you useful  
hints at every site of  
this project!

A6 M6

W3C XHTML 1.0 W3C CSS W3C WAI-AA WCAG 1.0

Home Kitchen Bathroom Quiz

## Bathroom Safety Introduction

Keep space heaters, radios, and other electrical products away from bathtubs and sinks.

Keep appliances and their cords away from water. If an appliance falls into the water, don't reach in to retrieve it until you've unplugged the appliance. Don't use the product again until you've had it inspected and repaired by a qualified technician.

Never use or attempt to repair a damaged appliance; always consult a qualified technician.



**Home**  
<< Back to Startpage <<

**Bathroom**  
>> Next Safety Topic >>

U10

U9 A9 M9

U12 A12 M12

U12 A12 M12

U7

Listen to this Site

+ Increase font size  
- Decrease font size

U1 A1 M1	<h2 style="color: #FFA500; margin: 0;">Kitchen &amp; Bathroom Safety</h2> <p>Knowledge Training for the 60+ generation</p>	U2 A2 M2
U3	<div style="margin-bottom: 5px;"> <a href="#">Home</a>              <a href="#" style="background-color: #C8E6C9; padding: 2px 5px;">Kitchen</a>              <a href="#" style="background-color: #BBDEFB; padding: 2px 5px;">Bathroom</a>              <a href="#" style="background-color: #FF8A65; padding: 2px 5px;"><b>Quiz</b></a> </div> <div> <h3>Safety Quiz</h3> <p>Where at home happen most accidents?</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="background-color: #4CAF50; color: white; padding: 10px; border-radius: 5px; text-align: center;"> <b>A: Kitchen &amp; Bathroom</b> </div> <div style="background-color: #9E9E9E; padding: 10px; border-radius: 5px; text-align: center;"> <b>B: Bedroom</b> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 10px;"> <div style="background-color: #9E9E9E; padding: 10px; border-radius: 5px; text-align: center;"> <b>C: Garden</b> </div> <div style="background-color: #9E9E9E; padding: 10px; border-radius: 5px; text-align: center;"> <b>D: Living Room</b> </div> </div> <div style="text-align: center; margin-top: 20px;"> <h2 style="color: #2ECC71; margin: 0;">Right, A is the correct answer!</h2> <div style="background-color: #9E9E9E; padding: 10px; border-radius: 5px; text-align: center; margin-top: 10px;">             &gt;&gt; Next Question &gt;&gt;           </div> </div> </div>	U11 A11 M11
U4 A4 M4	<div style="background-color: #F5F5F5; padding: 10px; border: 1px solid #DDD;"> <ul style="list-style-type: none"> <li>Home</li> <li>Kitchen               <ul style="list-style-type: none"> <li>Introduction</li> </ul> </li> <li>Bathroom               <ul style="list-style-type: none"> <li>Introduction</li> <li>Danger Zones</li> <li>Safety Products</li> <li>Summary</li> </ul> </li> <li><span style="color: red;">■</span> <b>Quiz</b></li> <li>Links</li> <li>Contact/ Credits</li> </ul> </div>	U10
U5 A5 M5	<div style="background-color: #F5F5F5; padding: 10px; border: 1px solid #DDD;"> <div style="display: flex; align-items: center;"> <span style="font-size: 2em; color: red; margin-right: 10px;">?</span> <h3>Help &amp; Hints</h3> </div> <p>That is an easy one to start! This website is about it!</p> </div>	U9 A9 M9
U6 M6		U13 A13
		U14 M14
		U15 A15 M15
		U7

## References

Paciello, M. G. (2002) Web Accessibility for People with Disabilities, New York

Kurniawan, S. & Zaphiris, P. (2005) Research-Derived Web Design Guidelines for Older People

Fidgeon, T. (2006) Sitepoint <http://www.sitepoint.com/article/improve-usability-older-users> (accessed 22/10/2007)

World Wide Web Consortium <http://www.w3.org/> (accessed 22/10/2007)

Khan, S. (2007) <http://www.bathroomsafety.co.uk/bathroom-safety-for-older-people.html> (accessed 22/10/2007)