

LEARNING AND DEVELOPMENT PORTAL

HEURISTIC ANALYSIS | JUNE 19, 2018

INTRODUCTION

HEURISTICS OVERVIEW

Heuristic evaluation is the process by which a small group of usability specialists evaluate a user interface based on a series of heuristics, or usability principles.

The Nielsen Norman heuristics¹ are a series of widely accepted principles which govern user interface design. While these heuristics were originally designed to evaluate software, we may still apply them to web interfaces. To do this as effectively as possible, we allow for some flexibility in interpretation in order to best fit the technologies to which these heuristics are now being applied. The heuristics, along with our interpretations in definition, are listed to the right.

Visibility of system status

The website should always clearly indicate what is happening through appropriate and timely feedback. Users should be able to anticipate the consequences of their next actions.

Match between system and the real world

The website's copy, interactions, and design should use concepts and terms familiar to the user, and adhere to all relevant conventions.

User control and freedom

The website should allow users to correct accidental choices and offer opportunities to "undo" any unwanted actions without relying exclusively on the browser's "back" button.

Consistency and standards

The website should maintain internal consistency of interactions, design, and copy; be consistent with other related websites/web applications; and adhere to standards and conventions of web design more broadly.

Error prevention

The website should anticipate potential user errors and take appropriate action to prevent them. As used here, "error" may refer to not only internal system errors, but errors that occur in a broader sense as a result of misinformation or confusion that the system creates.

Recognition rather than recall

The user should need to remember a minimum amount of information to use the website effectively.

Flexibility and efficiency of use

Users who are already familiar or comfortable with the website should have the option to speed up interactions and use "shortcuts" wherever possible.

Aesthetic and minimalist design

The website should not contain unnecessary information in any capacity, including (but not limited to) links, copy, and images. Visual hierarchy of various page elements should be well thought-out and lead to logical progressive visual disclosure.

Help users recognize, diagnose, and recover from errors

Error states or messages should indicate the problem in simple, straightforward language and should point the user to corrective action.

Help and documentation

The website should allow the user to search for specific functions, and should offer help or onboarding information as needed.

¹ <https://www.nngroup.com/articles/ten-usability-heuristics/>

APPLYING HEURISTICS TO USA4 MILITARY FAMILIES

Heuristic evaluation involves having a small set of evaluators examine the interface and judge its compliance with recognized usability principles (the “heuristics”).

- Nielsen Norman Group

Approach

Our analysis of the present pages neither assumes nor necessitates a certain design or creative approach as we move forward. We use this heuristic evaluation not as a direct springboard into a redesign, but as a way of augmenting our user research. The design implications of our observations reflect concepts that may need to be taken into consideration as we enter the design phase.

While we use the heuristics as a way of shaping our analysis and grounding them in best practices, it is the nuances of our observations and their corresponding implications which are most valuable. For this reason, we apply these heuristics within the bounds of three major goals.

Goals

When applying the Learning and Development Portal website, we are careful to adapt the principles to both best fit a web platform (see page 3 for principles and definitions) and best address our three main goals of this heuristic evaluation. These goals are to:

1. Identify concepts that need to be taken into consideration for later designs;
2. Deepen our understanding of the current system and its current capabilities; and
3. Assess successes and failures of the current system that may inform future designs.

PAGE SELECTION

Page titles have been chosen based upon the page's dominant heading. Pages without a logical dominant heading are named for how they are referenced on other pages. It is important to note that these titles are not always consistent throughout all areas of the page (for example, a button linking to that page, the title as listed in the browser tab, and the title inside the page itself might all differ), which may in itself cause a user some confusion.

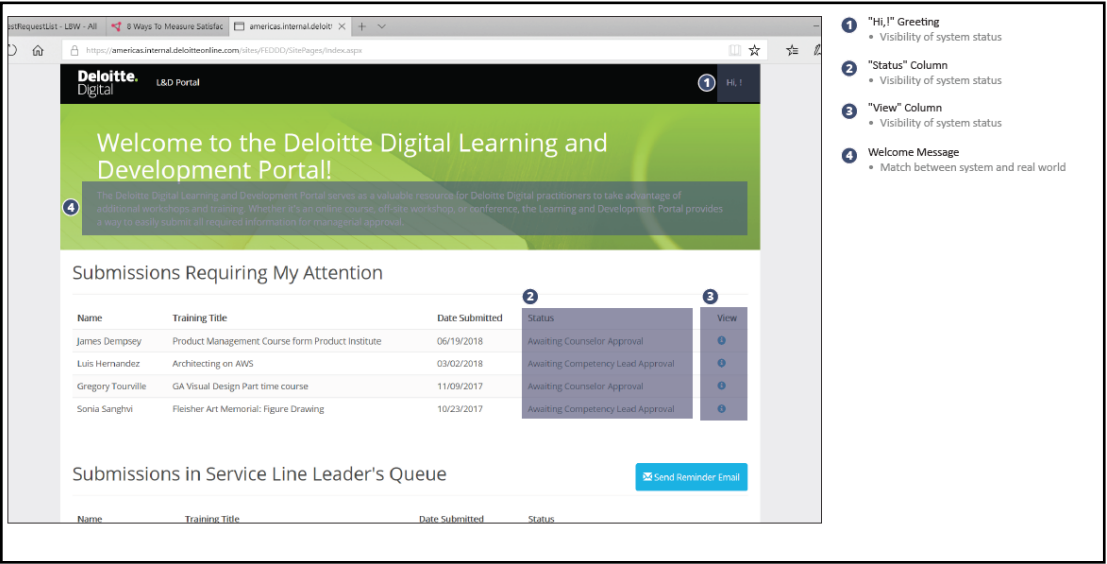
Pages Reviewed

- Landing Page
- Training Approval Form
- Training Approval Request Form
- DDLearningDevelopment
- ReminderEmail

INDIVIDUAL PAGE ANALYSIS

EVALUATION GUIDE

Each individual page evaluation consists of two components: the screenshot page(s) followed by the evaluation table page.



The screenshot page consists of:

- A large screenshot of the page in question
- A series of rectangular overlays drawing attention to key evaluation items
- Numbers assigned to each rectangular overlay
- A list of relevant heuristics correlated with numbered evaluation item(s)

Note that in some cases, evaluation items are correlated with more than one heuristic.

HEURISTICS	OBSERVATIONS	DESIGN IMPLICATIONS
Visibility of system status	<p>1 Because the user's name is not filled in, it might lead users to wonder whether or not they are actually logged in. There is also no obvious way to log out or in to the system, so users do not know their status or how to change it.</p> <p>2 This column might be considered unclear because it does not show what step in the process the user is in or how many steps there are. It also does not inform the user of any action required on their part.</p> <p>3 It may be unclear to users what they will view upon clicking on an item and where the link will take them.</p> <p>4 Only providing the date of last action may not give users enough context as they try to understand where they are in the process of approval.</p>	<p>Design may need to take into account importance of providing logged-in status to the user.</p> <p>Design may need to consider more precise indicators of submission status.</p> <p>Design may need to consider clearer language for actionable links.</p> <p>Design may need to consider the type of information provided to users in the process of request approval.</p>
Match between system and real world	<p>4 The language used in this message is vague and may not give users a true sense for how and why this portal is used.</p>	<p>Design may need to take into account the audience and use more specific language when describing the process they will follow.</p>
Aesthetic and minimalist design	<p>5 This column is redundant because it provides the same information as the section title.</p> <p>6 This column is redundant because the status of any completed training should be 'complete.'</p> <p>7 This button may be an important action, but users must scroll down the page to reach it.</p>	<p>Design may need to consider the information presented and the value it provides.</p> <p>Design may need to consider the information presented and the value it provides.</p> <p>Design may need to consider the importance of submitting a new request and the frequency with which it is used.</p>

The evaluation table page consists of a column listing heuristics for each evaluation item from the previous screenshot page(s), using the correlated numbers

- A column with all relevant observations for each evaluation item
- A column with all relevant design implications for each evaluation item

LANDING PAGE

estRequestList - LBW - All

8 Ways To Measure Satisfac

americas.internal.deloit

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https://americas.internal.deloitteonline.com/sites/FEDDD/SitePages/Index.aspx

Deloitte Digital

L&D Portal

1Hi, !

4

Welcome to the Deloitte Digital Learning and Development Portal!

The Deloitte Digital Learning and Development Portal serves as a valuable resource for Deloitte Digital practitioners to take advantage of additional workshops and training. Whether it's an online course, off-site workshop, or conference, the Learning and Development Portal provides a way to easily submit all required information for managerial approval.

Submissions Requiring My Attention

Name	Training Title	Date Submitted	2Status	3View
James Dempsey	Product Management Course form Product Institute	06/19/2018	Awaiting Counselor Approval	i
Luis Hernandez	Architecting on AWS	03/02/2018	Awaiting Competency Lead Approval	i
Gregory Tourville	GA Visual Design Part time course	11/09/2017	Awaiting Counselor Approval	i
Sonia Sanghvi	Fleisher Art Memorial: Figure Drawing	10/23/2017	Awaiting Competency Lead Approval	i

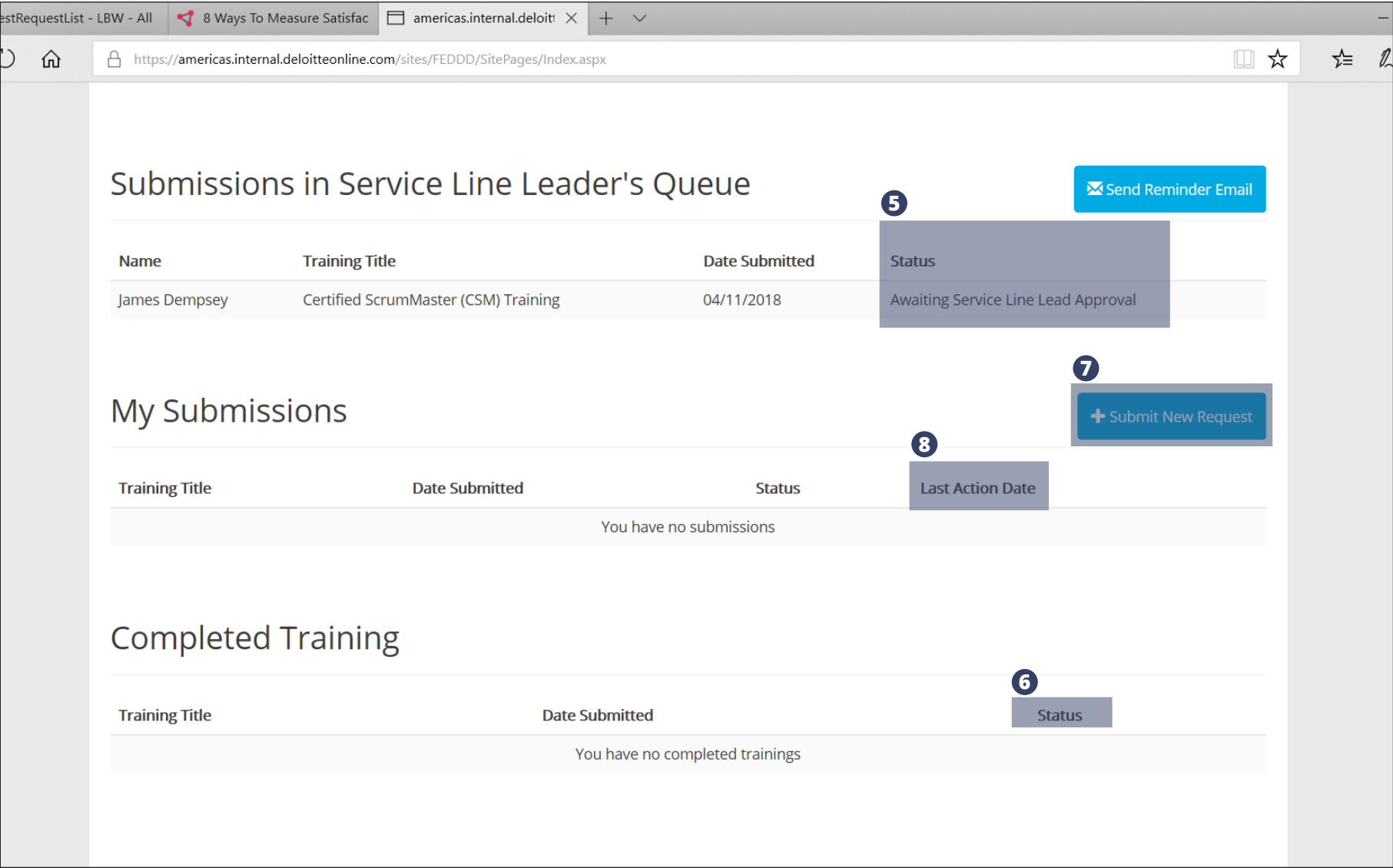
Submissions in Service Line Leader's Queue

Send Reminder Email

Name	Training Title	Date Submitted	Status
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- 1"Hi,!" Greeting
 - Visibility of system status
- 2"Status" Column
 - Visibility of system status
- 3"View" Column
 - Visibility of system status
- 4Welcome Message
 - Match between system and real world

LANDING PAGE



- 5 "Status" in SSL Queue Section
 - Aesthetic and minimalist design
- 6 "Status" in Completed Training Section
 - Aesthetic and minimalist design
- 7 "Submit New Request" Button
 - Aesthetic and minimalist design
- 8 "Last Action Date" Column
 - Visibility of system status

LANDING PAGE: EVALUATION

HEURISTICS	OBSERVATIONS	DESIGN IMPLICATIONS
Visibility of system status	<p>1 Because the user's name is not filled in, it might lead users to wonder whether or not they are actually logged in. There is also no obvious way to log out or in to the system, so users do not know their status or how to change it.</p>	Design may need to take into account importance of providing logged-in status to the user.
	<p>2 This column might be considered unclear because it does not show what step in the process the user is in or how many steps there are. It also does not inform the user of any action required on their part.</p>	Design may need to consider more precise indicators of submission status.
	<p>3 It may be unclear to users what they will view upon clicking on an item and where the link will take them.</p>	Design may need to consider clearer language for actionable links.
	<p>8 Only providing the date of last action may not give users enough context as they try to understand where they are in the process of approval.</p>	Design may need to consider the type of information provided to users in the process of request approval.
Match between system and real world	<p>4 The language used in this message is vague and may not give users a true sense for how and why this portal is used.</p>	Design may need to take into account the audience and use more specific language when describing the process they will follow.
Aesthetic and minimalist design	<p>5 This column is redundant because it provides the same information as the section title.</p>	Design may need to consider the information presented and the value it provides.
	<p>6 This column is redundant because the status of any completed training should be 'complete.'</p>	Design may need to consider the information presented and the value it provides.
	<p>7 This button may be an important action, but users must scroll down the page to reach it.</p>	Design may need to consider the importance of submitting a new request and the frequency with which it is used.

TRAINING APPROVAL FORM: TOP OF PAGE

eminderEmail - All Items

DDLearningDevelopment -

americas.internal.deloit

L&D Redesign | Trello

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https://americas.internal.deloitteonline.com/sites/FEDDD/SitePages/Form.aspx

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Deloitte Digital

L&D Portal

Hi, !

Training Approval Request Form

1

Practitioner Details

First Name:

Last Name:

First Name

Last Name

Level:

Select Level

▼

Competency/Capability:

Select Competency

▼

FY17 Training Hours Already Completed (CED):

hrs

Current Utilization:

%

Check the Talent On Demand portal to get your current utilization.

Will this training/conference put you below your utilization target?:

☐ Yes

☐ No

2

* All fields are required

3

Have you attended an external training/conference in the last 12 months or have you been approved for an upcoming training/conference?:

☒ Yes

☐ No

Name of Conference/Training:

Total Amount Spent:

\$

Counselor's Email:

- 1 Practitioner Details Section
 - Aesthetic and minimalist design
- 2 Form Instructions
 - Aesthetic and minimalist design
- 3 Previous Conference Information
 - Recognition over recall

TRAINING APPROVAL FORM: BOTTOM OF PAGE

eminderEmail - All Items

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https://americas.internal.deloitteonline.com/sites/FEDDD/SitePages/Form.aspx

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Training/Conference Details

4

Name:

Training/Conference Name

Location:

City

State

Start date:

End date:

Costs

Registration:

\$

Total Cost:

5

Training/Conference Criteria

1. Is this training/conference in line with the goals of your competency?

Yes

No

6

Please provide a brief description

2. Is this training/conference in line with your career goals?

Yes

No

3. Will this training help you complete or get a certification that DD needs to be competitive in the market?

Yes

No

Cancel

Submit Request

- 4

Training/Conference Details Section

• Recognition over recall
- 5

Training/Conference Criteria Section

• Visibility of system status
- 6

Response Text Box

• Consistency and standards

TRAINING FORM: EVALUATION

HEURISTICS	OBSERVATIONS	DESIGN IMPLICATIONS
Aesthetic and minimalist design	<p>1 If a user is logged in, they might expect the system to already have records of the information in this section. Filling it out again might feel redundant.</p> <p>2 This note is small and users may not notice it, especially once they have scrolled down and it is out of view.</p>	<p>Design should take into account the accessible preexisting information and how it can be pre-populated to reduce user effort.</p> <p>Design should consider placement and size of important information that users need to successfully complete a task.</p>
	<p>3 This field required users to recall or look up several details about a conference, rather than providing an easier option, such as a dropdown menu.</p> <p>4 This field requires users to recall or look up several details about a conference, rather than providing an easier option, such as a dropdown menu.</p>	<p>Design may need to consider the optimal way for users to enter this information.</p> <p>Design may need to consider the optimal way for users to enter this information.</p>
Visibility of system status	<p>5 When users select an option, this text box appears. This may frustrate users who were not expecting to have to fill out additional information when they first looked at this question.</p>	<p>Design may need to account for the cases in which additional information is required and how it is elicited from the user.</p>
Help and documentation	<p>6 The text box provides vague instructions and no word count, so users may not know how much effort or time to put into writing a response.</p>	<p>Design may need to consider providing some form of instructions in order to standardize the information recieved through this form.</p>

TRAINING APPROVAL REQUEST FORM: TOP OF PAGE

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DDLearningDevelopment -

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https://americas.internal.deloitteonline.com/sites/FEDDD/SitePages/ApprovalForm.aspx?SID=202

Deloitte Digital

L&D Portal

Hi, !

Training Approval Form

1

Practitioner Details

First Name:

James

Last Name:

Dempsey

Level:

Consultant / Studio Staff

Competency/Capability:

Product Manager (PM)

2

FY17 Training Hours Already Completed (CED):

20 hrs

Current Utilization:

85 %

Will this training/conference put you below your utilization target?: ☐ Yes ☒ No

Have you attended an external training/conference in the last 12 months or have you been approved for an upcoming training/conference?: ☒ Yes ☐ No

Name of Conference/Training:

Certified Scrum Master Training

3

Total Amount Spent:

\$ 1200

Counselor's Email:

csanangelo@deloitte.com

- 1 Entire Page Format
 - Aesthetic and minimalist design
- 2 Training Hours and Utilization
 - Recognition over recall
- 3 Total Amount Spent
 - Recognition over recall

TRAINING APPROVAL REQUEST FORM: BOTTOM OF PAGE

Training/Conference Details

Name:
Product Management Course form Product Institute

Location:
Online VA

Start date: 07/09/2018 **End date:** 09/15/2018

4

Costs

Registration:

\$ 1299

Total Cost: \$1299.00

Training/Conference Criteria

1. Is this training/conference in line with the goals of your competency? ☒ Yes ☐ No
I am switching to the PM compitancy and this will give me a foundation of skills to be able to succeed

2. Is this training/conference in line with your career goals? ☒ Yes ☐ No
IN order to move and succeed in PM I would like to learn more about the industry, best practices and how the leaders in this industry act.

3. Will this training help you complete or get a certification that DD needs to be competitive in the market? ☒ Yes ☐ No
I will be given a certificate in Product Management from the Product Institute

5

Approve

Reject

- 4
- Costs
 - Visibility of system status
- 5
- Action buttons
 - Visibility of system status

TRAINING APPROVAL REQUEST FORM: EVALUATION

HEURISTICS	OBSERVATIONS	DESIGN IMPLICATIONS
Aesthetic and minimalist design ❶	There may not be any need for this page to be formatted as the same form that a general user fills out.	Design might need to consider the best format for displaying information gathered from a form based on the audience.
Recognition over recall ❷	There is no benchmark provided for a normal or average amount of hours for these fields, so users are forced to try to remember what a "good" number might be.	Design might need to account for the context needed to facilitate the approval process.
	❸ Does not indicate how much any given individual is allowed to spend in a fiscal year.	Design might need to account for the context needed to facilitate the approval process.
User control and freedom ❹	There is no way to account for other costs (e.g. hotel, food, transportation) even though there is a 'total' label - generally indicating that there are multiple costs being added together.	Design might need to provide more options/categories for costs.
Visibility of system status ❺	It may be unclear what submitting or accepting the request does because there is no sense of the next step or next approver who will see this request.	Design may need to account for the specific user and their position in the process.

DDLEARNINGDEVELOPMENT: LEFT OF TABLE

1

2

3

4

Deloitte

DDLearningDevelopment

new item or edit this list

LBW - All

Find an item

FirstName	LastName	PracLevel	PracCompetency	PracCED	PracUtilization	PracUtilizationImpact	CounselorEmail	ConferenceName	ConferenceCity	ConferenceState	AltLocationLowerCost	costAlternative	VirtuallyOffered	ConferenceStartDate	ConferenceEndDate	RegistrationCost	TravelCost	LodgingCost	PerDiemRate	TotalCost
James	Dempsey	Consultant / Studio Staff	Product Manager (PM)	20	85	No	csanangelo@deloitte.com	Product Management Course form Product Institute	Online	VA	undefined	undefined	7/9/2018	9/15/2018	1299					1299
Skyfar	Weaver	Analyst / Studio Associate	Engineering	0	95	No	brokoszak@deloitte.com	Deloitte Blockchain Guild IBM Blockchain Training	Toronto	CA	No	No	6/11/2018	6/12/2018	0	400	500	118	1136	
Tali	Cohen	Analyst / Studio Associate	Digital Business and Strategy	3.5	97	No	jfranks@deloitte.com	Certified SCRUM Master (SCM)	Washington	DC	undefined	undefined	6/18/2018	6/19/2018	1295.00				1295	
Sean	Salyards	Senior Consultant / Specialist Senior / Studio Senior	Product Manager (PM)	2	138	No	jfranks@deloitte.com	Mind the Product	San Francisco	CA	No	No	7/16/2018	7/17/2018	899	400	550	276	2401	
Kevin	Savage	Senior Consultant / Specialist Senior / Studio Senior	Product Manager (PM)	24	79	No	adru@deloitte.com	Mind the Product	San Francisco	CA	No	No	7/16/2018	7/17/2018	899	400	550	276	2401	
Mike	Corey	Consultant / Studio Staff	Product Manager (PM)	64	0	Yes	alslater@deloitte.com	Certified ScrumMaster - cPrime	Washington	DC	undefined	undefined	5/23/2018	5/24/2018	995				995	
Felicia	Alfieri	Consultant / Studio Staff	UX	54	83	No	ssyed@deloitte.com	Felicia Alfieri	Princeton	NJ	No	No	5/14/2018	5/14/2018	0	250	135	129	514	

- 1

2

3

4

5

6

7
- The Whole Page

Aesthetic and minimalist design

Menus

Aesthetic and minimalist design

Entire Table

Aesthetic and minimalist design

Left to Right Scrolling

Consistency and standards

Undefined Values

Match between system and real world

Column Titles

Match between system and real world

Search

User control and freedom

DDLEARNINGDEVELOPMENT: RIGHT OF TABLE

11

Deloitte.										
ExpenseDate	RegistrationCost	TravelCost	LodgingCost	PerDiemRate	TotalCost	CounselorSupport	CompetencySupport	PracCareerGoals	DDGoals	Status
/2018	1299				1299			Yes	Yes	Awaiting Counselor Approval
/2018	0	400	500	118	1136			Yes	Yes	Approved
/2018	1295.00				1295			Yes	Yes	Approved
/2018	899	400	550	276	2401			Yes	No	Approved
/2018	899	400	550	276	2401			Yes	No	Approved
/2018	995				995			Yes	Yes	Approved
/2018	0	250	135	129	514			Yes	No	Approved
/2018	0	250	135	129	379			Yes	No	Approved

8

9

10

- 8
- Several Empty Columns
- Aesthetic and minimalist design
- 9
- Past Training Information
- Flexibility and efficiency of use
- 10
- "Created" Column
- Visibility of system status
- 11
- Hidden sorting functionality
- User control and freedom

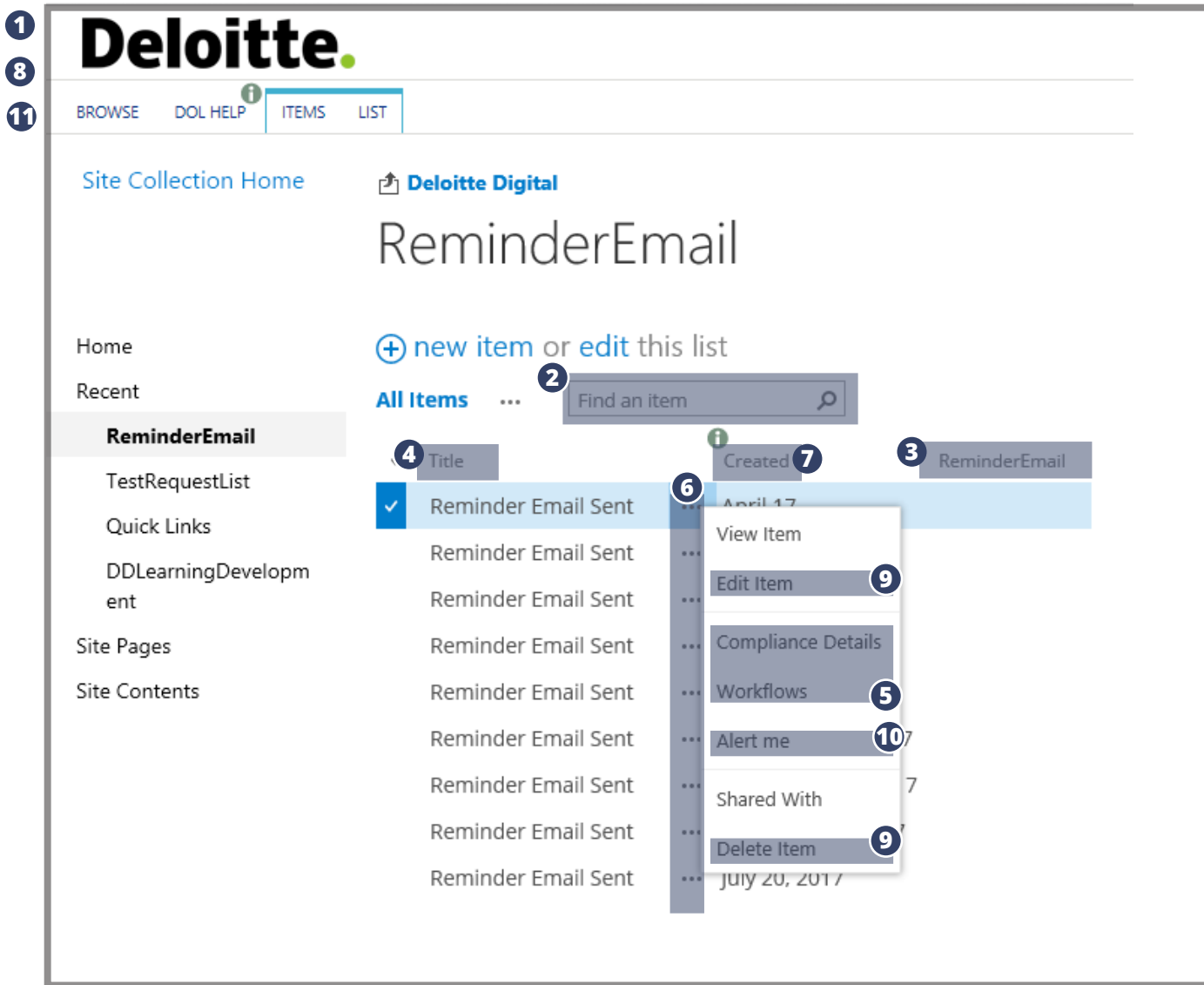
DDLEARNINGDEVELOPMENT: EVALUATION

HEURISTICS	OBSERVATIONS	DESIGN IMPLICATIONS
Aesthetic and minimalist design	1 The existence of this page in general is redundant with some of the information in the portal.	Design may need to consider if additional information is necessary to be on a separate page.
	2 There appears to be five different menus.	Design should consider consolidating menus and only including essential information/links.
	3 The table contains more fields than necessary and is very difficult to read.	Design might consider identifying essential data and restructuring how it appears.
	8 Many columns are partially or completely empty.	Design might consider identifying essential data and restructuring how it appears.
Consistency and standards	4 Left-to-right scrolling makes reading and navigating this page difficult.	Design might consider using top-to-bottom scrolling or completely restructuring the appearance of this data.
Match between system and the real world	5 People do not use 'undefined' to answer a yes/no question.	Design might take into account the audience and options when displaying data.
	6 The Camel Case and lack of spacing between the column headers (and most titles on this page) is not syntax a human would use or write, and might be offputting.	Design might take into account the audience when displaying data.
Flexibility and efficiency of use	7 The search field is small and hard to see; it disappears from view when the user scrolls right on the table.	Design might consider importance and frequency of searching.
	9 There is only one set of columns for past training information, which does not allow flexibility in the case that a user attended multiple trainings in the past year.	Design might consider frequency of having more than one past training and a more flexible way to display that data.

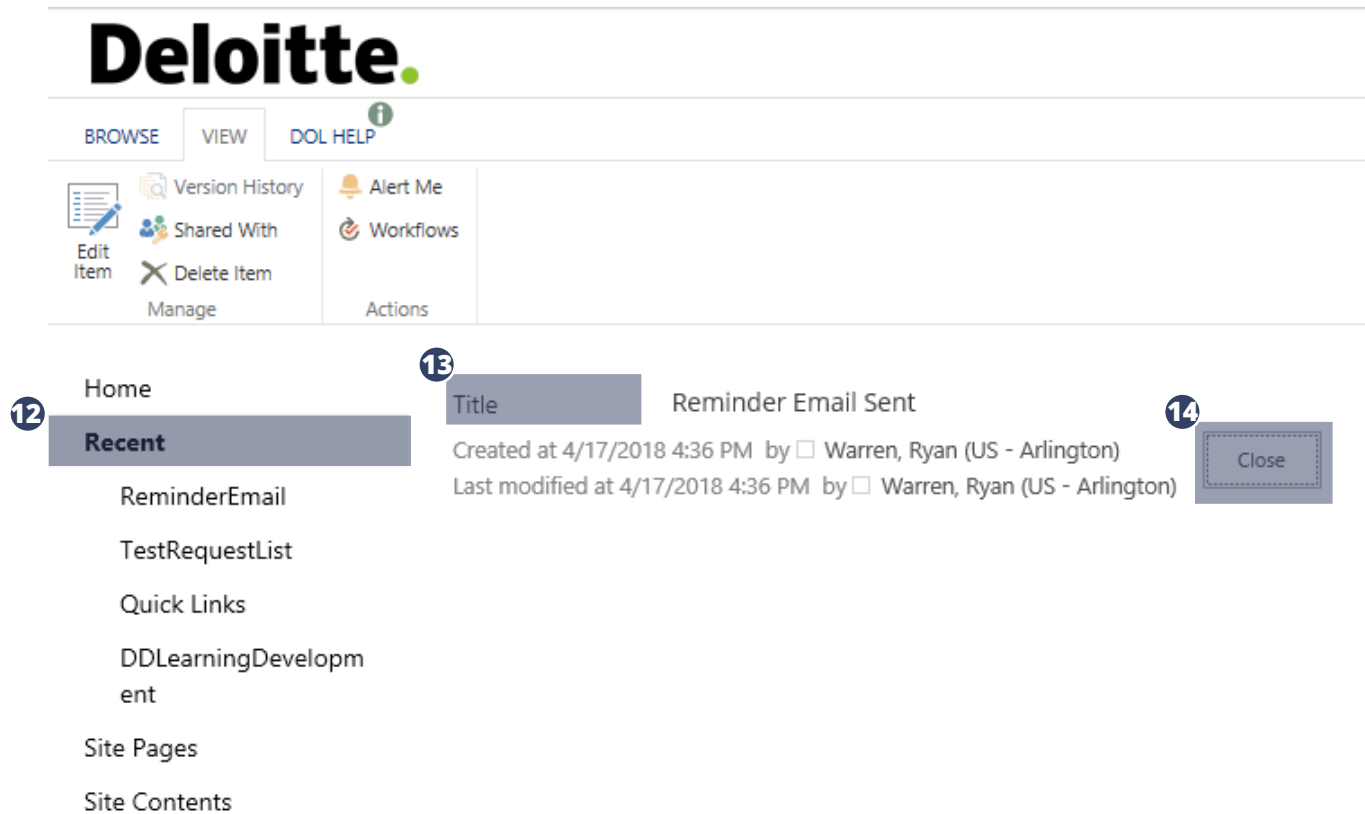
DDLEARNINGDEVELOPMENT: EVALUATION

HEURISTICS		OBSERVATIONS	DESIGN IMPLICATIONS
Visibility of system status	10	This column is the very last field in the table, but it is how the table is sorted by default. Users might not realize how the table is ordered until (if) they scroll all the way to the right.	Design might consider how and why the data is sorted by default.
User control and freedom	11	Users can sort the data by columns, but they might not see how at first glance.	Design might consider importance and frequency of sorting.

REMINDEREMAIL: LIST VIEW



REMINDEREMAIL: DETAILS



- 12 Selected Menu Item
 - Consistency and standards
- 13 "Title" Column Content
 - Match between system and the real world
- 14 "Close" Button
 - Visibility of system status

REMINDEREMAIL: EVALUATION

HEURISTICS	OBSERVATIONS	DESIGN IMPLICATIONS
Aesthetic and minimalist design ❶	The existence of this page in general is redundant with some of the information in the portal.	Design may need to consider if additional information is necessary to be on a separate page.
	❷ Based on the number of entries, search functionality might be unnecessary.	Design might consider importance and frequency of searching.
	❸ This column has no data beneath it, so it might be unnecessary.	Design might consider identifying essential data and restructuring how it appears.
	❹ Every row in this column contains identical data.	Design might consider identifying essential data and restructuring how it appears.
	❺ These links go to pages that contain no information.	Design might consider identifying essential links and restructuring how they appear.
User control and freedom ❻	The options and actions in this sub-menu are hidden and some users might not know where to find them.	Design might consider identifying essential links and restructuring how they appear.
Match between system and real world ❼	The word "created" might not make sense in the context of sending an email.	Design might take into account the audience and action when displaying data.
	❽ This table is lacking information like who the email was sent to/from. This is information that a user might expect to encounter when looking at data about email.	Design might take into account the audience and action when displaying data.
	❾ It does not make sense conceptually to edit or delete a reminder that has already been sent.	Design might take into account the audience and action when displaying data.

REMINDEREMAIL: EVALUATION

HEURISTICS	OBSERVATIONS	DESIGN IMPLICATIONS
Match between system and real world 10	The titles given do not relay email that a title field typically does.	Design might want to consider creating an IA appropriate for its audience.
Help and documentation 11	The entire page lacks context about what it's displaying and instructions for how it can be used.	Design might want to consider integrating instructions or help for complex screens.
Consistency and standards 12	Upon clicking on 'View Item,' the bolded menu link changes, communicating to users that they have navigated to a different page. However, the task at hand is viewing the details of an email, which belongs under the ReminderEmail sub-menu.	Design might want to consider site navigation and creating an IA appropriate for its audience.
	13 Configuring alert settings generally falls under 'Settings,' so users might not think to find that action under this sub-menu.	Design might want to consider displaying data appropriate for its audience.
Visibility of system status 14	It is unclear what the "Close" button will do or where the user will be redirected after clicking it.	Design might want to consider site navigation and creating an IA appropriate for its audience.