

Cybersecurity Training Portal Evaluation

This project is about creating a training portal on Cyber Security and Forensics. The training portal focuses on Android security and it implement learning styles (ways of how different people learn better). It has features such reading material, communication features such as messaging and forums, and assessment such as quizzes and progress reports. The purpose of this evaluation is to asses the design and functionality of the features. You will be given a set of tasks and at the end of each task you will complete a NASA TLX questionnaire. Tasks are numbered from 1-3 and the experiment id is the same number as the task. You will be given a participant id and each task will be timed manually. Please note that any and all information is stored anonymously and it is confidential. If you have any questions you can ask me now or after the evaluation is done. You can also e-mail me at 1104205c@student.gla.ac.uk or ioanniscleary@gmail.com for any further feedback or questions.

Task 1 sign up, log in, profile and help

1. **Sign up** for an account
2. **Log out and log back in**
3. Go and **check your profile**
4. **Click on the complete profile message** that will take you to the learning style/type page.
 - a. **Select any questionnaire and complete it**
 - You will be given a sheet take notes and to help you calculate your result
 - b. **Enter your result** on the website.
5. **Go to your messages** and check the folders
6. **Write a message** to admin1104205c
7. **Go to forum** and explore
8. **Create a topic and post a reply**
9. Complete NASA TLX (experiment id = 1)

Task 2 reading and assessment

1. **Read chapter "Spam"** and attempt any exercises that are available
2. **Take the quiz** of that chapter (**name ="Spam"**. You might want to take the example quiz in order to get a feel of how the assessment works)
3. Go to your **profile** and **view your progress**
4. Go to the **grade breakdown**
5. Go to the **statistics** page
6. Go back to the home page
7. Complete NASA TLX (experiment id = 2)
8. Complete general feedback sheet

General feedback

Participant id:

What you liked:

What you didn't like:

What you would change:

What you would add:

Questionnaire notes

Participant id:

Selections (numbers):

Add amount of selection per learning style (This format might help :
)

||||| = 5

Activist:

Reflector:

Theorist:

Pragmatist:

Enter highest result on the website.

Dependent variables: Time needed to complete tasks, Time needed to navigate to pages, Quiz score

Independent variables: Number of navigation bar buttons and arrangement. (Website design: layout and color scheme) and functionality.

Hypothesis:

- Learning styles help users perform better.
 - Navigation bar layout is well organized, it obvious and easy to find things.
 - Navigation between chapter pages is easier with next/previous and back buttons.
 - Website layout and colour scheme is clear and it is easy for the user to read content.
 - All features of the website are working (pages are loaded, actions are executed as expected).
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Evaluation Results

Participant 10 - Overall time = 33m20s

Task 1

TLX : 1m 30 s

Task overall: 11m 13s

- Sign up - Go to : 3s, To complete: 15s
- Log out and Log in - Log out : 7s, Log back in: 3s
- Go to profile: - - Go to : 3s, To complete: 5s
- Learning style page - Go to: 3s
 - Complete questionnaire: 7m
 - Calculate result: 3m - **REFLECTOR**
 - **Activist: 6**
 - **Reflector: 15**
 - **Theorist: 14**
 - **Pragmatist: 8**
- Go to help centre : 10s Done: 24s

Task 2

TLX : 1m

Task overall: 20m 57s

Comment- too long, vague question, can't see statistics, colors are too bright, similar question

- Chapter - Go to : 14s
- Read Chapter - Overall: 12m 34s
 - 1: 1m 34s
 - 2: 1m 40s
 - 3: 2m 50s
 - 4: 2m 39s - ex: 1m 34s
 - 5: 2m 17s
- Quiz- Go to: 5s - Overall : 6m39s
 - Example quiz - 9s
 - Spam quiz - 6m 25s
- View progress - 30s

- Statistics - 1m 10s (confusion where it is) looked for in Course bar

Task 3

TLX : 1m

Task overall: 1m 10s

Comment- label looked like button

- Go to messages - 3s
- Send message - 7s
- View message - 10s
- Go to forum - 6s
- Create topic - 14s
- Reply - 30s

General Feedback

What you liked: Useful information. Forum and messages are a good idea

What you didn't like: Colour scheme - sometimes too bright. Long evaluation

What you would change: Make chapter shorter

What you would add: A choice between chapters (more than one).

Participant 11

Task 1

TLX : 2m 28 s

Task overall: 11m 33s

Comment: Distracted by long questionnaire (A), note sheet helped. Automated process of questionnaire. Calculation.

- Sign up - Go to : 2s, To complete: 16s
- Log out and Log in - Log out : 5s, Log back in: 10s
- Go to profile: - - Go to : 3s, To complete: 7s
- Learning style page - Go to: 3s
 - Complete questionnaire: 6m42s
 - Calculate result: 3m38s - **REFLECTOR**
 - **Activist: 4**
 - **Reflector: 15**
 - **Theorist: 10**
 - **Pragmatist: 7**
- Go to messages - 2s
- Send message - 17s
- View message - 41s
- Go to forum - 2s
- Create topic - 16s -40s search for button
- Reply - 5s

Task 2

TLX : 1m 14s

Task overall: 18m 47s

Comment- attempt to pass sections of knowledge that were known, Found new knowledge good when read through, missed exercise at first. Searched for quiz in the chapter itself, next step was under course. During the quiz went back to chapters - couldn't remember some information. Progress and statics were useful, went to course to find the statistics. 63%

- Chapter - Go to : 2s
- Read Chapter - Overall: 11m 27s

- 1: 1m 42s
 - 2: 1m 53s
 - 3: 2m 11s
 - 4: 2m 01s - ex: 1m 30s
 - 5: 2m 10s
- Quiz- Go to: 47s - Overall : 6m37s
 - Example quiz - /
 - Spam quiz - 5m 50s
- View progress - 14s
- Statistics - 0m 10s
- Grade breakdown 7s

General Feedback

What you liked: Good UI, knew where (nearly) everything was. Nice visualisation of stats for your profile.

What you didn't like: Some pages were not obvious to find. Manual process of questionnaire (need to be automated)

What you would change: /

What you would add: Video tutorial demonstrating the website.

Participant 12

Task 1

TLX : 3m 32 s

Task overall: 15m 04s

Comment: Distracted by long questionnaire (A), note sheet helped. Automated process of questionnaire. Calculation.

- Sign up - Go to : 2s, To complete: 28s
- Log out and Log in - Log out : 9s, Log back in: 15s
- Go to profile: - - Go to : 3s, To complete: 2s
- Learning style page - Go to: 18s
 - Complete questionnaire: 9m24s
 - Calculate result: 3m23s - **REFLECTOR**
 - **Activist: 7**
 - **Reflector: 12**
 - **Theorist: 7**
 - **Pragmatist: 9**
- Go to messages - 3s
- Send message - 27s
- View message - 5s
- Go to forum - 2s
- Create topic - 26s -7s explore
- Reply - 10s

Task 2

TLX : 2m 16s

Task overall: 19m 15s

Comment Went to profile button to log out. (Suggested that the logout is visible). Learning style message went to messages(inbox). Thought that a page/section was a chapter (Suggested previous/next would be labelled as previous page/next page. Tried to click disabled links, add a hint to hover over the links. Found chapter interesting, learned new things. Identity theft. - 88%

- Chapter - Go to : 2s

- Read Chapter - Overall: 13m 39s
 - 1: 1m 38s
 - 2: 1m 40s
 - 3: 2m 51s
 - 4: 2m 42s - ex: 1m 48s
 - 5: 3m 00s
- Quiz- Go to: 15s - Overall : 4m35s
 - Example quiz - /
 - Spam quiz - 4m 35s
- View progress - 8s
- Statistics - 0m 34s
- Grade breakdown 4s

General Feedback

What you liked: Interesting topics. Good looking website..

What you didn't like: Manual completion of questionnaire

What you would change: Chapter confusion (page)

What you would add: /

TLX

experimentalID	participantID	tx_Score	scale_mental	scale_physical	scale_temporal	scale_perform	scale_effort	scale_frustratio	workload_ment	workload_physi	workload_temp	
	1	10	30.14	13	10	45	21	49	8	0.27	0.07	0.27
	2	10	53.8	49	14	51	62	64	38	0.13	0	0.33
	3	10	22.13	9	10	14	41	49	6	0.07	0.27	0.27
	1	11	25.46	17	25	21	28	27	5	0.07	0.2	0.13
	2	11	62.87	87	22	64	30	68	30	0.33	0.07	0.2
	1	12	31.66	8	63	48	51	14	18	0.27	0.2	0.13
			1	89	71	49	17	49	25	0.33	0.07	0.2

experimentalID	participantID	workload_perfor	workload_effort	workload_frustr	workloadWeight	workloadWeight	workloadWeight	workloadWeight	workloadWeight	workloadWeight
1	10	0.2	0.2	0	3.47	0.67	12	4.2	9.8	0
2	10	0.2	0.2	0.13	6.53	0	17	12.4	12.8	5.07
3	10	0.2	0.13	0.07	0.6	2.67	3.73	8.2	6.53	0.4
1	11	0.33	0.27	0	1.13	5	2.8	9.33	7.2	0
2	11	0.2	0.2	0	29	1.47	12.8	6	13.6	0
1	12	0.13	0.27	0	2.13	12.6	6.4	6.8	3.73	0
2	12	0.13	0.27	0	29.67	4.73	9.8	2.27	13.07	0