Thinking Aloud Test

User Interface / User Experience Designs

Group Members

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Usability Test of the Web Site

https://namal.edu.pk/

NAMAL INSTITUTE

1 Executive Summary

We have done with this Think Aloud Test by following the guidelines shared in the course of UxUi, and after properly testing all the users, we added them in the group of test users. Think aloud test is a direct observation method of user testing that involves asking users to think out loud as they are performing a task. Users are asked to say whatever they are looking at, thinking, doing, and feeling at each moment. After the consent form and background check we began with the testing. We placed a camera to the test user while they were performing the task. We also made our on colleagues to write down the facial expressions of the user while performing the tasks. We were using one pilot who has more experience with the camera as compared to others to avoid any missing thing.

We created a list of 8 tasks which every test user performed while their turn. All tasks have a rate complexity in a specific range.

All the users completed all the tasks without much hesitations except task 8. Three out of 4 users failed to perform the task 8 in which the test user has to login into the portal system of Namal University. This was because the test users did not know their credentials. Also the guest login option is not that much visible on the login page that everyone can see it without any problem. Another big problem was, when a visitor visits the contribution section of the website, there was no proper link which can redirect the user to the online transfer of the cash. There was an old way to transmit the money which is also an odd thing.

One of the most positive thing about the website is, the sub links open on a very moderate rate. There was no lag between the switching of the sub links as well.

Our Top three recommendations are as follows:

- There should be a proper visibility for the Guest Mode in the Login of LMS
- There should be multiple modes of Money Transferring in the contribution section
- When the user tries to contribute, there should me multiple links for different banks

2 Test Methodology

2.1 Test Procedure

Users are asked to say whatever they are looking at, thinking, doing, and feeling at each moment.

We reached the test user and told him about our plan. After his agreement, we move forward. We gave the user the basic information about the procedure which we are going to perform. We also show a demo video to the user so that he can learn in which manner we have to perform and in which way we are going to move. The user uses a designated test machine and is monitored by an examiner, camera, a microphone and screen-capturing software. We also placed

a mirror in front of the user to notice his facial expressions. We finished the test after filling the feedback questionnaire.

How We Proceeded

We set up our test environment in a room of our institute in which we placed a PC for the user on which he will perform the task, a camera and a mirror to capture all the necessary things. We introduced our complete team with the test user and made him to see a previous video of Think aloud test so that he can complete the task with greater ease. We then gave them the consent form/non-disclosure agreement to sign and then went through the background questionnaire.

When the users were done with the background questionnaire, we started the test. We gave a list of 8 tasks to all the test users and told them to finish the following tasks. When a user performs a particular task, we completely notice all of its aspect and write down all the notes completely. After the completion of test, we went to all the user and ask them different general questions. After the question, we ask them to fill the questionnaire.

We did the pilot test a day before the think aloud test of normal users and did the final test a day after the test of the normal users. When we were done with all the testing, we complete our remaining parts and write down this report.

2.2 Test Users

User Profiles

- Users that wants to know about chairman's message.

- Users that wants to know about vision and mission of Namal.

- Users that wants to know about Namal core values.

- Users that wants to know about Namal story.

- Users that wants to know about Namal knowledge city.

- Users that wants to know about people.

- Users that wants to know about administrative departments.

- Users that wants to know about Quality Enhancement cell.

Users that wants to know about Academics:

- Users that wants to know about BS EE

- Users that wants to know about BS CS

- Users that wants to know about BBA

- Users that wants to know about BS MATHS

- Users that wants to know about the Academic Calendar

Users that wants to know about Admissions:

- Users that wants to know about Why Namal?

- Users that wants to know about Admissions timetable

- Users that wants to know about Admissions criteria

- Users that wants to know about Entry test guidance

- Users that wants to know about Financial Aid

- Users that wants to know about Deposit slip

- Users that wants to know about Fee structure

- Users that wants to know about FAQs

Users that wants to know about Life at Namal:

- Users that wants to know about Workshops and seminars

- Users that wants to know about Facilities

- Users that wants to know about Green Namal

Users that wants to know about News and Events:

- Users that wants to know about What happening at Namal

- Users that wants to know about how Namal welcomes new rector

- Users that wants to know about university super league

- Users that wants to know about baithak

- Users that wants to know about international mountains day

- Users that wants to know about Theme dinner

- Users that wants to know about Baithak 25 Nov

- Users that wants to know about Inter house football competition

- Users that wants to know about how Namal celebrated Eid miladun-nabi

- Users that wants to know about Tasweerography event

- Users that wants to know about open mic

- Users that wants to know about Planation drive

- Users that wants to know about Namal school

- Users that wants to know about Namal's first incubation center launching

- Users that wants to know about Mou signing ceremony for Namal Agritech center

- Users that wants to know about Tayayba's participation at NUS

- Users that wants to know about Osman jaliel as a cultural ambassador

- Users that wants to know about Badminton tournament.

- Users that wants to know about Minute to win it 6.0

- Users that wants to know about MOU for promoting scientific contributions by Muslim civilization

Users that wants to know about how to contribute?

- Users that wants to know about where to contribute?

- Users that wants to know about the website for contribution

- Users that wants to go to the www.namalknowledgecity.com

Users that wants to know about the Academic Calendar.

Users that wants to know about the Faculty.

- Users that wants to know about Board of governors

- Users that wants to know about Faculty of all departments

- Users that wants to know about CS faculty.

- Users that wants to know about EE faculty.

- Users that wants to know about BBA faculty.

- Users that wants to know about Math's faculty.

- Users that wants to know about other faculty members.

- Users that wants to know about Senior management team

Users that wants to know about Namal University LMS (NULMS):

- Users that wants to visit nulms

Users that wants to know about Quality Enhancement Cell:

- Users that wants to know about QEC Team.

Users that wants to know about how to contact Namal (Contact us).

Users that wants to know Latest News from Namal.

Users that want to know What's Happening at Namal?

Users that wants to know What Makes Namal a Great Choice?

Users that want to apply for admission 2020.

Users that wants to know about Rural and Agriculture Informatics Lab.

Users that wants to know about Resources:

- Users that wants to know about NULMS

- Users that wants to know about Library

- Users that wants to know about Student societies

- Users that wants to know about Facilities

Test Group

The group of test users we selected are our university mates. The users were interested in exploring the website of the Namal University.

Choosing the test Subject

We asked people who were interested in exploring new things, people who have some bad or good experience while exploring a new website. We then filtered our users and select 4 users from all of them how showed the interest.

Aliases

The mapping of real names to aliases is included in the **Test Users** section.

Test Users

Below table gives an overview of the test users participated in our TA.

Test User	TP1 (Pilot)	TP2	TP3	TP4
Date of Test	11.12.2021	12.12.2021	12.12.2021	12.12.2021
Time of Test	10:10	11:15	12:20	18:20
First Name	Sagar	Uzair	Zeemal	Waqar
Aliases	Zeeshan	Arsalan	Alayna	Sajid

Test User	TP1 (Pilot)	TP2	TP3	TP4
Sex	male	male	female	male
Age	21	21	20	25
Occupation	Student	Student	Student	Lab Engineer
Uses a sight aid on the computer	Glasses	Glasses	-	-
Any form of color blindness	-	-	-	-
Educational level attained:	Higher Secondary School	Higher Secondary School	Higher Secondary School	Computer Science
If Studying/Studied: [Study Subject]	ML	ML	AI	AI
Using PC for [years]	12	10	15	10
Time spent on PC per week [hours]	12	18	11	15
OS normally used	Microsoft Windows	Microsoft Windows	Linux	Microsoft Windows
Internet usage per week	2.5	4.2	8	10
Surfing at most from	home	work/home	work/home	home
Connection normally used	DSL	cable modem/ 4G	cable modem/4G	cable modem
Web browser normally used	Chrome	Firefox	Firefox	Chrome
Experience as a webmaster	-	-	-	-

Test User	TP1 (Pilot)	TP2	TP3	TP4
Has visited Namal Website Before?	Yes	Yes	Yes	Yes

2.3 Test Tasks

These are the task which we will be using to test the website using Thinking Aloud Test.

Task No.	Description	Prerequisites	Completion Criteria	Max. Time	Possible Solution Path
1	Please go to the web site https://namal.edu.pk/ and spend a few minutes looking around the site.	Web browser opened at www.google.com	User indicates they have finished looking around or 3 minutes have elapsed.	3 minutes.	After 3 minutes ask the user: 1. Who does this web site represent? 2. Who is this web site intended for? 3. What does this web site offer?
2	Please go into the academic session.	Website should be opened in the browser.	User indicates they have finished looking around or 1 minutes have elapsed.	5 minutes.	Click on the navigation bar "academic".
3	Apply online in Namal.	Website should be opened in the browser.	User indicates they have finished	4 minutes.	Click on "Apply Online" -> "Apply Now"

			looking around or 2 minutes have elapsed.		
4	Visit Academic Departments	Website should be opened in the browser.	User indicates they have finished looking around or 5 minutes have elapsed.	6 minutes.	Hover over "Departments" and click on the "Academic Departments" -> click on desired department.
5	Visit the Contribute section in the Namal website.	Website should be opened in the browser.	User indicates they have finished looking around or 2 minutes have elapsed.	3 minutes.	Click on "Contribute" navigation bar and in the popup shown click on "Namal Knowledge City".
6	Visit the News and Events in Namal.	Website should be opened in the browser.	User indicates they have finished looking around or 3 minutes have elapsed.	3 minutes.	Click on "News & Events" navigation bar in the top.
7	Check information about the Namal.	Website should be opened in the browser.	User indicates they have finished looking around or 2 minutes have elapsed.	5 minutes.	Hover over the navigation bar "About" in top menu bar. Here you can select targeted option for the information like "Core Values" etc.

8	Visit and log in NULMS (Namal University LMS).	Website should be opened in the browser.	User indicates they have finished looking around or 6 minutes have elapsed.	7 minutes.	Click on "NULMS" written in top menu. You will be directed to NULMS page. Now Click on "Log in". Enter username and password in the respected sections and press log in.

2.4 Test Environment
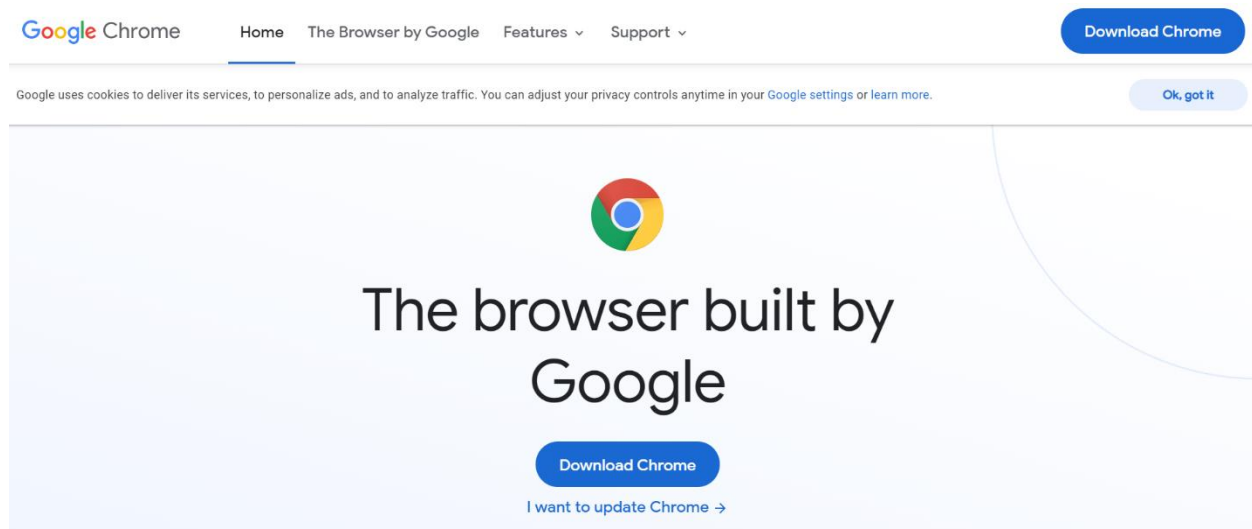
The web browser which we used:

Figure 1: Web Browser

The Test room and environment:

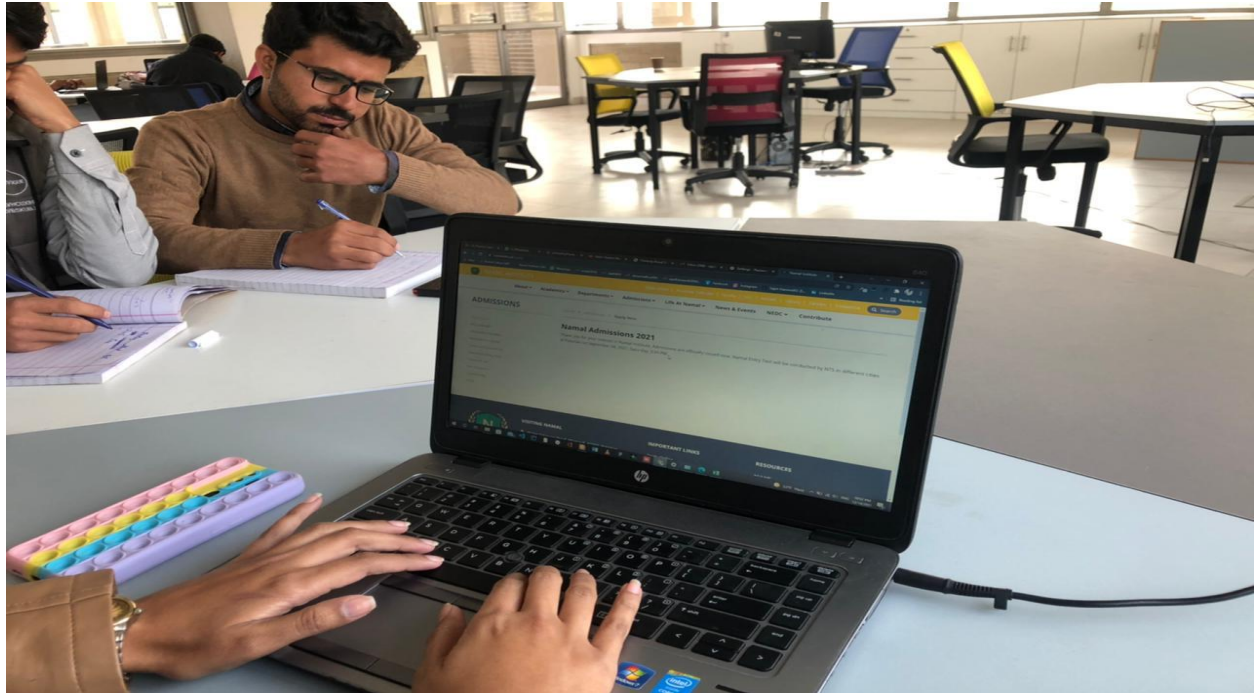Figure 2: Environment

Figure 3: A big picture

Figure 4: The PC

Hardware	Intel Core2 Duo, 4GB RAM
Operating System	Windows 10 Education
Web Browser	Google Chrome
Connection	8Mbit
Monitors	32 bit
Monitor Resolution	1280 x 800
Monitor Size	13, 3'' TFT

Recording Equipment

We have a source for the equipment, but we still waiting for confirmation, and so the equipment cannot be specified at this moment in time.

As Screen Capture Software we will use CamStudio.

2.5 Training

We made the Test Users to watch a movie on the topic of Think Aloud test and also we explain all the necessary details that how this test carries out. Users then tried to emulate this during the test to a more or lesser extent.

We did not provide any special interface to the test users. We simply use the most common used browser, chrome, a keyboard and a mouse for the input and for the output purposes, we used a LED. All of the test users were familiar with Computer and all other Tools

3 Results

3.1 Discussion and Analysis

The website being tested was https://namal.edu.pk/, it can be developed further. But at the moment we are checking the good and bad points in Namal website.

There were many positive findings in the website. Website has a good user experience. Many users were able to do their tasks. Website does not take more time in loading the pages. Pages of the website take maximum 4 to 5 seconds. Most of the users were satisfied with the speed of page loading.

Almost all tasks were accomplished by the users but LMS log in was difficult for some users. Finding the section of financial aid and fee criteria was difficult for some users.

The test users liked the structure and overall menu of the site. They were able to find the sections which they were asked to find. They also liked the ease of finding the opening times however like stated above some used google to do this.

A summary of how many users completed each task and whether any assistance was given is shown in Table A.

Task No.	Number of Users		
	Completed	Completed with Assistance	Not Completed
1	4 (100%)	0 (0%)	0 (0%)
2	3 (75%)	1 (25%)	0 (0%)
3	3 (75%)	0 (0%)	1 (25%)
4	2 (50%)	0 (0%)	2 (50%)
5	2 (50%)	1 (25%)	1 (25%)
6	4 (100%)	0 (0%)	0 (0%)

Task No.	Number of Users		
	Completed	Completed with Assistance	Not Completed
7	1 (25%)	0 (0%)	3 (75%)
8	1 (25%)	0 (0%)	3 (75%)

Table A: Tasks completion statistics.

3.2 First Impression

Tables given below a summary of the responses of the test users to the questions asked after the first impressions task.

TP1	Marketing of Namal
TP2	Announcement of Namal
TP3	Marketing of Namal.
TP4	Marketing of Namal.

Table: User responses to the question: "Who does this site represent?"

TP1	Students, Teachers
TP2	People who want information about Namal University, Mianwali.
TP3	People who want information about Admission in Namal University, Mianwali.
TP4	Namal University, Mianwali.

Table: User responses to the question: "Who is this web site intended for?"

TP1	Information of Namal
TP2	Admission information
TP3	Job opportunity for teachers
TP4	Access to the LMS.

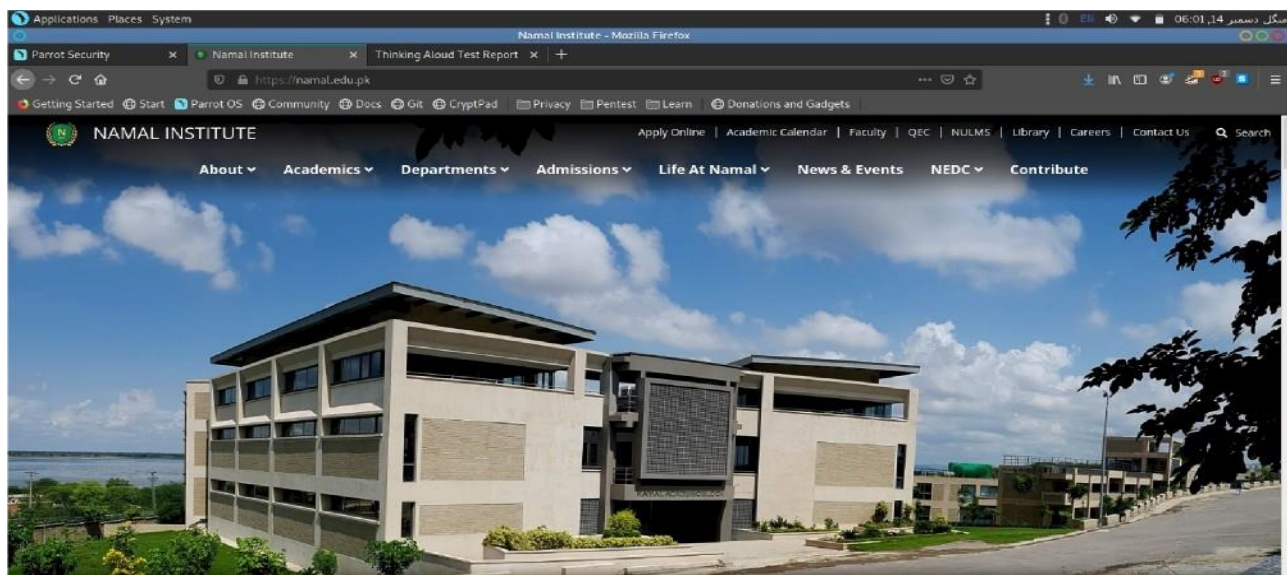**Table:** User responses to the question: "What does this web site offer?"

3.3 Positive Findings

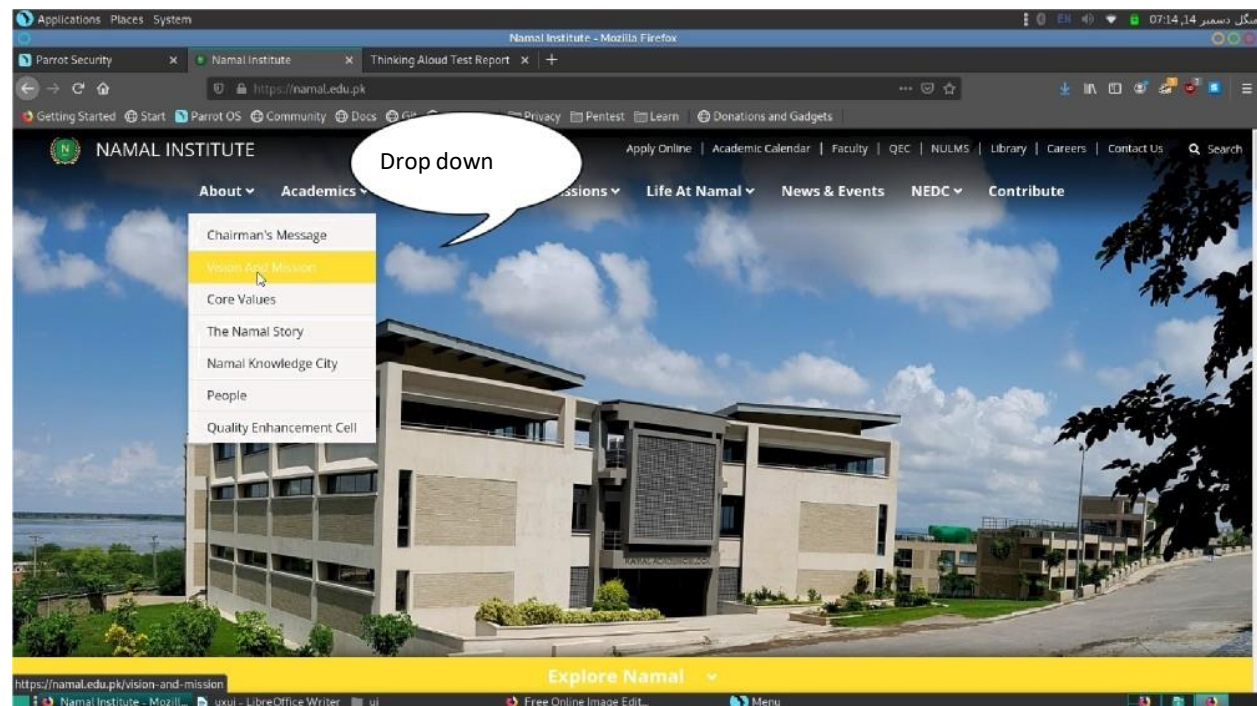### P1. User Interface

TPs:	T1, T2, T3, T4

User interface is in the sequential way like menus at the top, little description and pictures of what is present in the menu.

P2. Responsive and hover effects

TPs:	T1, T2, T3, T4

Responsiveness is the factor that makes an interface to run on all machines (Mobile, Tablets, and PC's) according to their screen resolution. This is a responsive website and gives a different look on mobile screen. Also whenever you hover any item of the menu, it automatically shows drop down menu. User doesn't need to click on the menu to get the drop down.
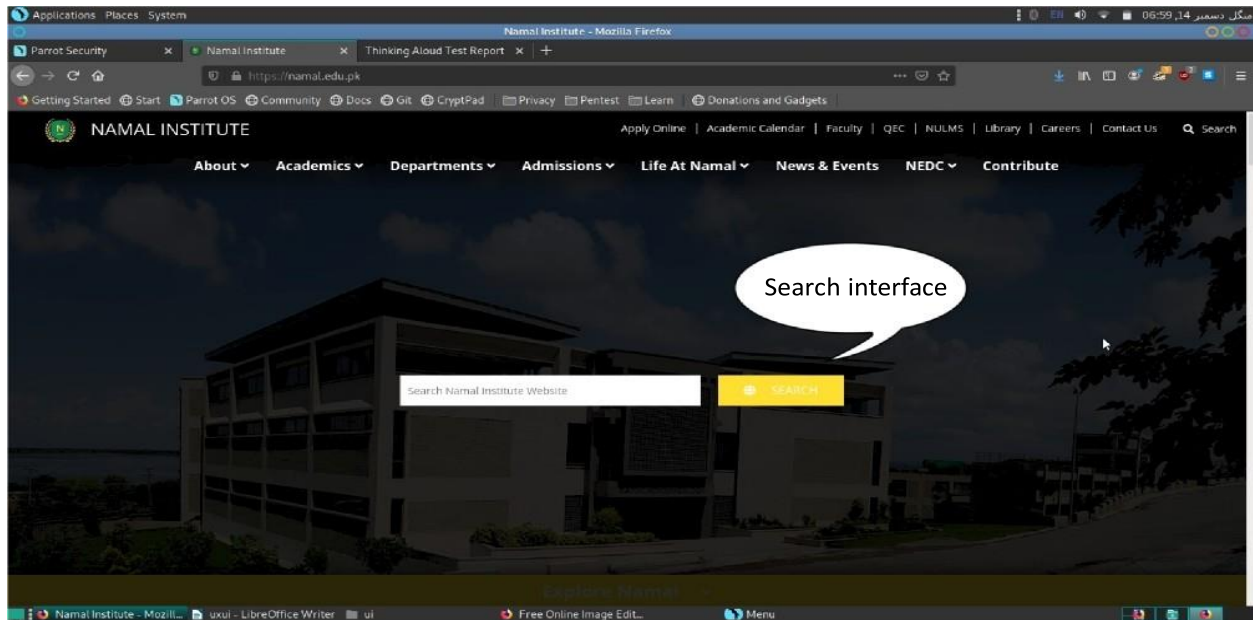

P3. Search button

Whenever the search button is clicked, it gives another interface for the search which allows users to write query.

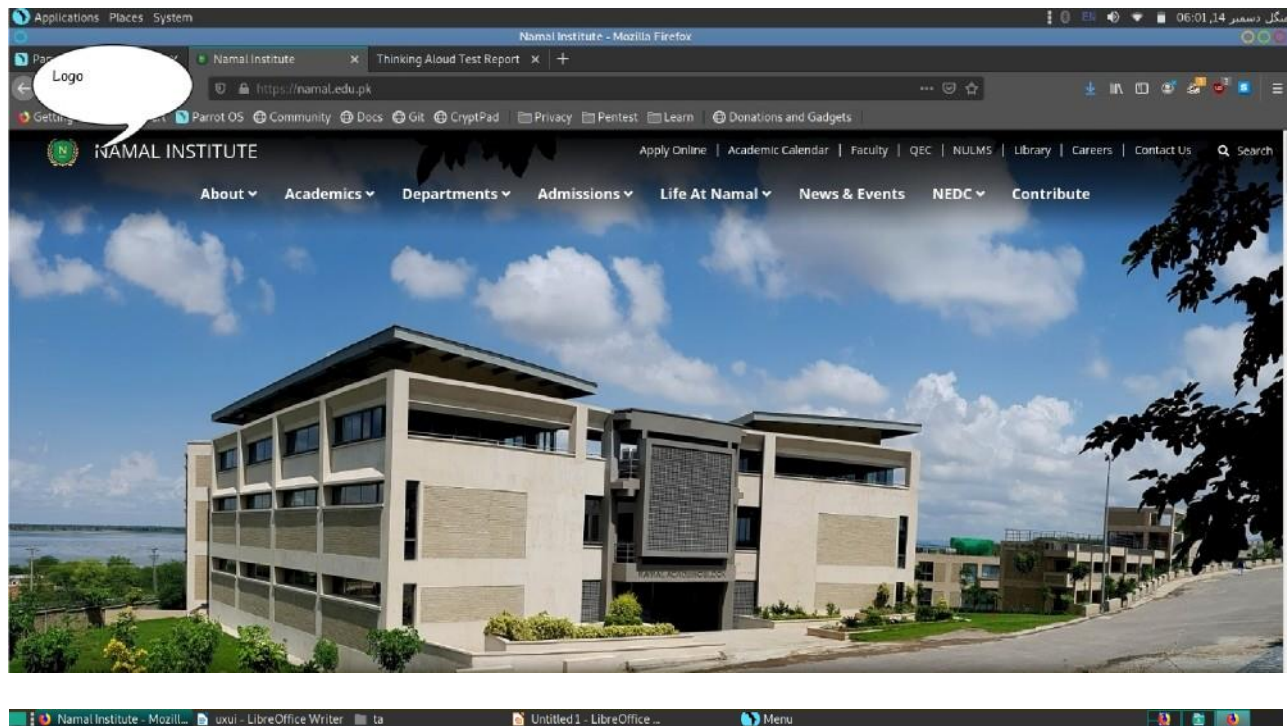| TPs:	T1, T2, T3, T4

Search interface

P4. Color

Color scheme is good users enjoy the decency of the color scheme used. Number of colors are not used in the site.

3.4 List of Recommendations

R1. Logo size

Severity:	4.0
TPs:	T1, T2, T3, T4

The logo size is little. Actually the logo is clickable so, it is small so users are not being engaged by this.

R2. Sequence of list menu

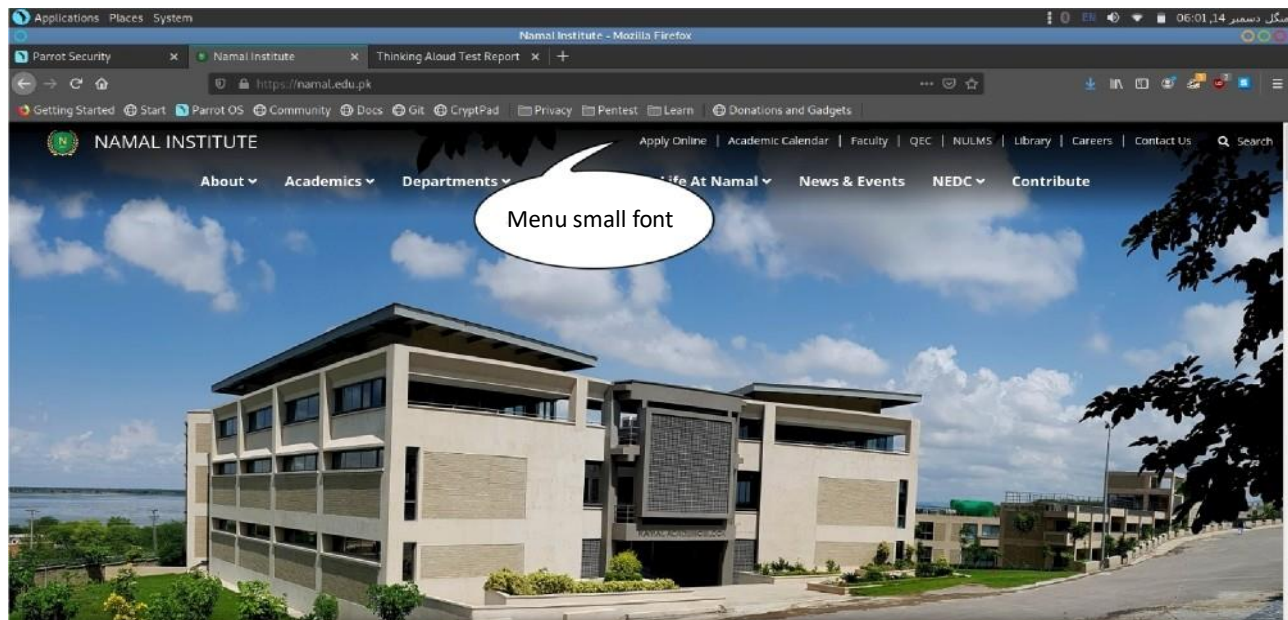| Severity:	4.0
TPs:	T1, T2, T3, T4

The sequence of second menu is not suitable for novice users. It top menu must be at the place where the secondary menu is present. Top menu contains the simple queries which a novice user wants. The secondary menu contains extra information about departments which comes at the second priority.

R3. Top menu size

Severity:	4.0
TPs:	T1, T2, T3, T4

At first the top menu must be present at the secondary position more over the font size must be little bit large so users can clearly recognize.

R4. Home page

| Severity:	5.0
TPs:	T1, T2, T3, T4

When you move to any page from the home page, you do not have any button labeled home so that you can come back to home. You manually come back in browser to move to home. There must be home page button.

R5. Background image

Severity	3.0
TPs	TP1, TP2, TP3, TP4.

The image at the background of menu is so colorful and bright that users are more attracted toward image than the menu. Image must be fade or less colorful.
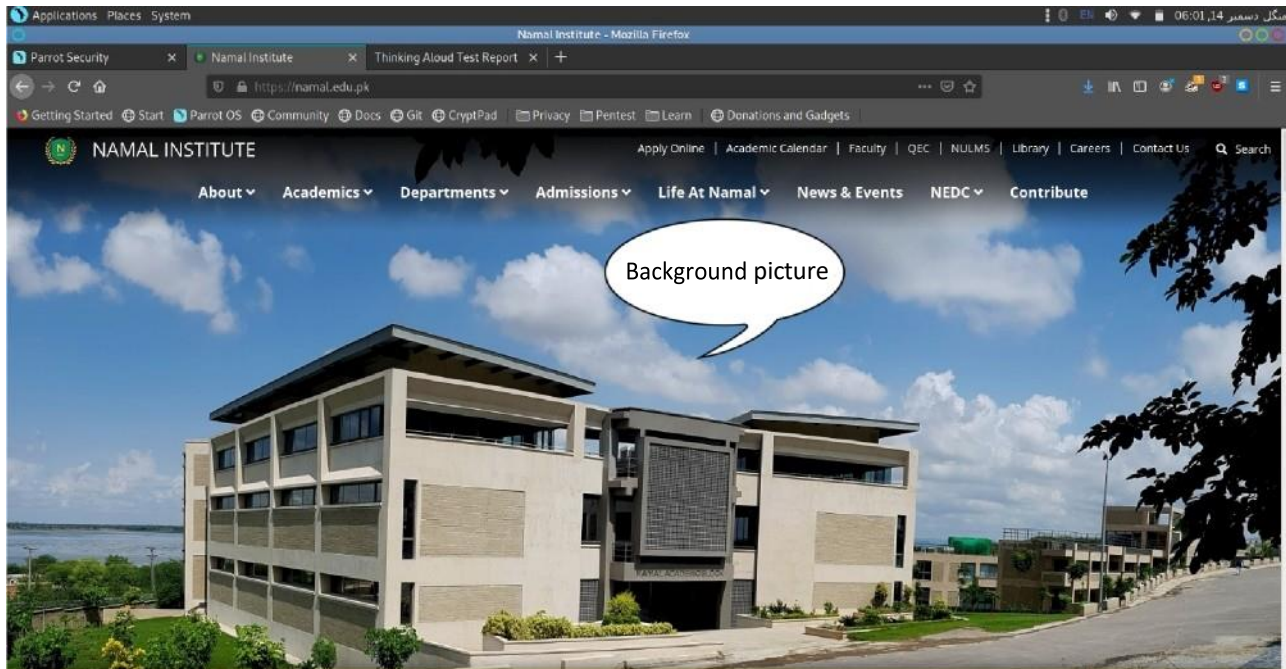
3.5 Interviews

A summary of the main points made by the users.

Then a transcript of the *exact* words said by both interviewer and test user in each interview.

3.1.1 TP1

Q: What was it like?

TP1: Good.

Q: Was it easy or hard to fulfill the tasks?

TP1: Yes, it was easy to fulfil the tasks I was given to perform.

Q: Do you find the page / the navigation well structured?

TP1: Yes, it was well structured. But there was an issue which I had to face very rarely that I hover over the menu of navigation it shows automatically the dropdown menu. Sometimes, I clicked on that menu and unwantedly I shifted to another page.

Q: What was your first impression?

TP1: I had a good impression because the color scheme was very attractive.

Q: Were you able to get enough information from the website about Namal?

TP1: Yes, I was able to get enough information like about Life at Namal, Academia etc.

Q: Where there any problems in finding the session?

TP1: All session were easy to find.

Q: What do you feel while applying online in the Namal? What was the problem which you faced during that task?

TP1: It was easy but as first time user is also confused but as talking about interface it was good enough.

Q: Were you able to find to "Life at Namal" section? If no, then what problem you faced?

TP1: Yes, I easily found that section on top navigation bar.

Q: Were you able to search and log in the NULMS. If yes, where there any problems in finding the "NULMS". If no, then what was the problem in finding the NULMS?

TP1: Yes, I found the LMS and log in was easy to do.

3.2.2 TP2

Q: What was it like?

TP2: Overall it was good but the logo is a little bit small. Color scheme is good.

Q: Was it easy or hard to fulfill the tasks?

TP2: Mostly I was able to perform my tasks but there were some tasks like Financial Aid I wasn't able to find it in easier way.

Q: Do you find the page / the navigation well structured?

TP2: Yes, it was well structured. But there was an issue which I had to face very rarely that I hover over the menu of navigation it shows automatically the dropdown menu. Sometimes, I clicked on that menu and unwantedly I shifted to another page.

Q: What was your first impression?

TP2: I had a good impression because the color scheme was very attractive. And placement of the menu and navigation menu is good.

Q: Were you able to get enough information from the website about Namal?

TP2: Yes, I was able to get enough information like about Life at Namal, Academia etc.

Q: Where there any problems in finding the session?

TP2: All session were easy to find.

Q: What do you feel while applying online in the Namal? What was the problem which you faced during that task?

TP2: It was easy.

Q: Were you able to find to "News & Events" section? If no, then what problem you faced?

TP2: Yes, I easily found that section on top navigation bar.

Q: Were you able to search and log in the NULMS. If yes, where there any problems in finding the "NULMS". If no, then what was the problem in finding the NULMS?

TP2: Yes, I found the LMS and log in was easy to do.

3.3.3 TP3

Q: "What did you think?" / "How was it?"
TP3: Color scheme is good. Interface and very good for users.

Q: Was it easy or hard to fulfill the tasks?

TP3: Mostly I was able to perform my tasks but there were some tasks like "Entry Test Guidelines" I wasn't able to find it in easier way.

Q: Do you find the page / the navigation well structured?

TP3: Yes, it was well structured. But there was an issue which I had to face very rarely that I hover over the menu of navigation it shows automatically the dropdown menu. Sometimes, I clicked on that menu and unwantedly I shifted to another page.
Q: What was your first impression?

TP3: I had a good impression because the color scheme was very attractive. And placement of the menu and navigation menu is good.

Q: Were you able to get enough information from the website about Namal?

TP3: Yes, I was able to get enough information like about Life at Namal, Academia etc.

Q: Where there any problems in finding the session?

TP3: All session were easy to find.

Q: What do you feel while applying online in the Namal? What was the problem which you faced during that task?

TP3: It was not easy for me to apply online. I was confused while applying but after taking some time I was succeeded at last.

Q: Were you able to find to "Academic Departments" section? If no, then what problem you faced?

TP3: Yes, I easily found that section on navigation bar in the drop down menu.

Q: Were you able to search and log in the NULMS. If yes, where there any problems in finding the "NULMS". If no, then what was the problem in finding the NULMS?

TP3: Yes, I found the LMS and log in was easy to do.

3.5.5 TP4

Q: "What did you think?" / "How was it?"
TP4: Color scheme is good. Interface and very good for users. I enjoyed while using the interface.

Q: Was it easy or hard to fulfill the tasks?

TP4: Mostly I was able to perform my tasks but there were some tasks like "Entry Test Guidelines" I wasn't able to find it in easier way.

Q: Do you find the page / the navigation well structured?

TP4: Yes, it was well structured. But there was an issue which I had to face very rarely that I hover over the menu of navigation it shows automatically the dropdown menu. Sometimes, I clicked on that menu and unwantedly I shifted to another page.
Q: What was your first impression?

TP4: I had a good impression because the color scheme was very attractive. And placement of the menu and navigation menu is good.

Q: Were you able to get enough information from the website about Namal?

TP4: Yes, I was able to get enough information like about Life at Namal, Academia etc.

Q: Where there any problems in finding the session?

TP4: All session were easy to find.

Q: What do you feel while applying online in the Namal? What was the problem which you faced during that task?

TP4: It was not easy for me to apply online. I was confused while applying but after taking some time I was succeeded at last.

Q: Were you able to find to "Academic Departments" section? If no, then what problem you faced?

TP4: Yes, I easily found that section on navigation bar in the drop down menu.

Q: Were you able to search and log in the NULMS. If yes, where there any problems in finding the "NULMS". If no, then what was the problem in finding the NULMS?

TP4: Yes, I found the LMS and log in was easy to do.

3.6 Feedback Questionnaires

A tabular summary of the responses to the feedback questionnaire, including the average and standard deviation is shown in Table below.

						TP1	TP2	TP3	TP4	Av	Std Dev
1	Getting to the right part of the site.	Very easy	6 5 4 **3** 2 1 0	Very hard		5	5	4	6	5	0.82
2	Quality of information.	Very good	6 5 **4** 3 2 1 0	Very poor		5	5	6	5	5.25	0.5
3	Ease of reading the text.	Very easy	6 **5** 4 3 2 1 0	Very hard		3	5	4	5	4.25	0.95742711
4	The site's local search facility (if available/used).	Very good	6 5 4 3 **2** 1 0	Very poor		6	3	-	2	2.75	2.081666
5	Appearances of site, including colors and graphics.	Very good	6 5 **4** 3 2 1 0	Very poor		6	5	6	5	5.5	0.57735027
6	Consistency of site.	Very consistent	6 5 **4** 3 2 1 0	Very inconsistent		5	5	4	5	4.75	0.5

7	Speed of pages displaying.	Very fast	6 5 4 3 2 **1** 0	Very slow	3	0	0	4	1.75	2.06155281
8	This site cares about my satisfaction as a Student.	Yes, very much	6 5 4 **3** 2 1 0	No, not at all	5	6	4	5	5	0.81649658
9	How relevant are the information on this site to you?	Very relevant	6 **5** 4 3 2 1 0	Not relevant at all	5	4	4	6	4.75	0.95742711
10	Overall impression of the web site.	Very good	6 5 4 **3** 2 1 0	Very bad	6	6	5	4	5.25	0.95742711
11	Would you feel good after getting information from this site?	Definitely	6 5 **4** 3 2 1 0	Not at all	6	4	5	5	5	0.81649658

| 12 | How likely are you to return to this site later? | Definitely | 6 5 4 **3** 2 1 0 | Never | 5 | 4 | 4 | 4 | 4.25 | 0.5 |

Table B: Tabular summary of the feedback questionnaire

Appendix A: Test Transcript

Chronological protocol of events during the test. Times are given in hours, minutes, and seconds of elapsed time on the videotape! You must watch each user video and manually edit the events into the table.

Code	Event
S	Start of task.
E	End of task.
O	Observation (problem).
G	Positive impression.
Q	Quote "Verbatim user comment".
X	Error, unexpected action.
H	User given help by facilitator.
P	Prompted by test facilitator.
T	Timeout, exceeded maximum time for task.
?	Probe this activity during debriefing.
C	Comment by test facilitator.
*	Very important action.

Legend: Coding scheme for test protocol.

Time(hh::mm::ss)	Event
	TP1
0:00:00	TP enters room
0:00:15	Greeting
0:00:30	Introduction to Thinking Aloud
0:02:30	Consent Form
0:03:10	Background Questionnaire
0:05:00	S :T1
0:05:25	!: TP enters website
0:05:30	What was your first impression?
0:05:40	TP searches for services
0:06:00	TP looks on the English
0:06:05	E :T1
0:06:15	S :T1(B)
0:06:35	Did you find the interface of Namal site interactive?
0:07:00	TP looks on the slider
0:07:04	E :T1(**B**)
0:07:10	S :T2
0:07:20	Is it useful to provide the option of changing language of website?
0:07:50	TP looks again on english
0:07:55	E :T2
0:08:00	S :T3
0:08:30	Did you find the contact form comprehensive?
0:09:30	Tp looks on why Namal?
0:09:40	E :T3
0:09:40	S :T4
0:10:30	Did you understand the abbreviation of edly?
0:11:40	TP looks into the services
0:11:50	S :T5
0:12:30	What the individual understands from the graph?
0:13:10	TP looks on the graph
0:13:15	E :T5
0:13:20	S :T6
0:14:10	Did you consider or understand it how Namal helps students??
0:14:50	E :T6
0:15:00	S :interview
0:17:20	E :interview
0:17:35	S: Feedback Questionnaire
0:18:00	E: Feedback Questionnaire

0:19:00	END
TP2	
0:00:00	TP enters room
0:00:15	Greeting
0:00:30	Introduction to Thinking Aloud
0:01:15	Clip of Keith Andrews
0:02:30	Consent Form
0:03:10	Background Questionnaire
0:05:00	S :T1
0:05:25	!: TP enters website
0:05:30	What was your first impression?
0:05:40	TP searches for services
0:06:05	E :T1
0:06:15	S :T1(B)
0:06:35	Did you find the interface of Namal interactive?
0:07:04	E :T1(**B**)
0:07:10	S :T2
0:07:20	Is there any need of establishing profile of the user?
0:07:50	TP searches for need of profiling
0:07:55	E :T2
0:08:00	S :T3
0:08:30	Did you find the contact form comprehensive?
0:09:30	Tp looks on why Namal
0:09:40	E :T3
0:09:40	S:T4
0:10:30	Did you understand the abbreviation of edly?
0:11:50	S :T5
0:12:30	What the individual understands from the site?
0:13:10	TP looks on the site
0:13:15	E :T5
0:13:25	S :interview
0:15:20	E :interview
0:15:35	S: Feedback Questionnaire
0:16:10	E: Feedback Questionnaire
0:16:20	END
TP3	
0:00:00	TP enters room
0:00:15	Greeting
0:00:30	Introduction to Thinking Aloud

0:02:30	Consent Form
0:03:10	Background Questionnaire
0:05:00	S :T1
0:05:25	!: TP enters website
0:05:30	What was your first impression?
0:05:40	TP searches for services
0:06:00	TP looks on the English
0:06:05	E :T1
0:07:10	S :T2
0:07:20	Did you find the contact form comprehensive?
0:07:50	Tp looks on why Namal
0:07:55	E :T2
0:08:00	S :T3
0:08:30	What the individual understands from the graph?
0:09:30	TP looks on the graph
0:09:40	E :T3
0:09:40	S :T4
0:10:00	Did you find the interface of namal interactive?
0:10:20	TP looks on the slider
0:10:30	E :T4
0:10:55	S :interview
0:11:30	E :interview
0:11:50	S: Feedback Questionnaire
0:12:10	E: Feedback Questionnaire
0:12:10	END

	TP4
0:00:00	TP enters room
0:00:15	Greeting
0:00:30	Introduction to Thinking Aloud
0:02:30	Consent Form
0:03:00	Background Questionnaire
0:04:10	S :T1
0:04:20	!: TP enters website
0:05:40	TP searches for services
0:06:00	TP looks on the English
0:06:05	E T1
0:06:15	S :T2
0:06:45	Did you find the contact form comprehensive?
0:07:15	Tp looks on why Namal
0:07:20	E :T2

0:07:25	S :T2
0:07:30	Is it useful to provide the option of changing language of website?
0:07:45	TP looks again on English
0:07:50	E :T2
0:07:55	S :T3
0:08:00	What the individual understands from the graph?
0:08:15	TP looks on the graph
0:08:20	E :T3
0:08:25	S :T4
0:08:40	Did you consider or understand it how Namal helps students?
0:08:55	TP looks on the site
0:09:00	E :T4
0:09:05	S :interview
0:10:00	E :interview
0:10:05	S: Feedback Questionnaire
0:11:00	E: Feedback Questionnaire
0:11:05	END

Appendix B: Test Team Materials

- Orientation script (In Think Aloud Plan).

Appendix C: User Materials

The mapping of test users' real names to their aliases is documented in the section **Test Users.** We also have a hardback paper copy printed out with this report.

For each user we also have a hard pack paper copy of:

- Completed background questionnaire.

- Data log filled out by scribe

- Completed feedback questionnaire.