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USABILITY STUDY OF AN INTRANET



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USABILITY STUDY OF AN INTRANET

Web usability has evolved emusively with a huge increase on the number of users. The

introduction of usability by applying usability measures has led to user friendly website

and ease of use.

The objective of this study was to test the usability of Messi, which is the intranet of

Turku University of Applied Sciences. The test would find out how easy and competent

the Messi web site is while being used by the real users by letting them take part in

simple task which would help improve the site in the future.

The methods used to collect the data were questionnaire, and observation with the

help of the Etrusoft software that recorded the interaction of the user and the system by

capturing screen action on areas clicked. The questionnaire was sent via e-mail to five

participating students of Turku University of Applied Sciences. All questionnaires were

filled out and returned. The data was then collected and used to evaluate how the

users interacted with Messi, the problems they encountered and how they were able to

recover from them.

The study showed that Messi was easy to learn and use with little problems. This

usability test could be used to help improve Messi in the future which will influence

student users achieve the goal of their tasks.

KEYWORDS:

Usability, Web Usability, Usability Testing, Usability Measures

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1 INTRODUCTION

Usability is a general term that surrounds anything and everything that has to do with the ease of use. A website is an organization's way of communicating and influencing the public by providing an efficient and enjoyable user experience. In this study efficiency and effectiveness are distinguished as part of usability and are explained more in depth.

This thesis is aimed at understanding and taking into account the link between the end user and the site. It discusses usability in perception to novice users and user's actions in depth as from chapter 3. In order to obtain reliable results it also deals with usability test on an existing site basing the evaluation on a group of users as shown in chapters 4 and 5.

The English version of Messi which is the intranet of Turku University of Applied Sciences is used in this thesis to achieve optimized user experience, this means using Messi with a group of student participants in the usability testing so as to be able to achieve better efficient and effective results. By observing the users' actions and reactions enabled testing the site's content and information so as to determine if it worked properly and also to help improve it in the future.

Testing the Messi website was done with use of questionnaire that contained a number of basic questions about the user and their background information plus a second section that dealt with users' perceptions while interacting with the website. The second section was tested with the Etrusoft software that enabled the tester to observe the participants while they interacted with the Messi website. In chapter 4 a group of users will be evaluated on how they use the web site by means of questionnaire and observation.

Chapter 5 discusses the results of the usability test. It shows in depth how the results from the questionnaire were achieved with the help of the Etrusoft software. It also discusses the kind of problems faced while interacting with Messi and how the testers overcame them.

2 USABILITY

Since 1994 the web has evolved emusively with the number of users increasing from 3 million to about 2.0 billion. According to Hudson (2004), the web is often described as a one way street that allows people with the required knowledge to add data so that anyone and everyone can access to it.

Developing a successful user centered website requires good usability knowledge where usability is simplified as ease of use. A website that continually frustrates its users with lack of proper navigation or is difficult to find information is clearly an example of it lacking good usability emphasis. In a usability perspective a website features need to be easy to find and easy to understand.

Testing a website is very challenging especially when dealing with changing technology every day, the many users that access to it, its quick availability, not being able to control the user's environment and round the clock availability of the site.

2.1 Definition of Usability

Usability refers to the quality of a system which means that the people using the system can efficiently and effectively accomplish their tasks (Dumas and Redish 1999, 4). The system whether it be a computer program, a cell phone, a video recorder should be effective, efficient and satisfying In order for people to use it quickly and easily. According to (Dumas and Redish (1999, 5) usability rests on four factors: focusing on users, productivity, accomplish tasks and ease of use.

Focusing on Users

A system itself has no value as its value rests upon its users. In order for designers to develop a system that can be used they basically have to know, understand and work with the potential users of the system as no one can play the user's role.

Productivity

Users mostly use products to enable them reach a certain goal. A system is considered easy to learn and use only if the time it consumes to accomplish a task is desirable and the process the user goes through while predicting the actions to take in order to meet his success. Hence most users use the available interface and records or help to be able to accomplish their task.

Accomplish Tasks

According to Dumas and Redish (1999, 5) most users associate usability with how well a product performs. This is revealed on the results of how tasks are accomplished, to accomplish these tasks certain tools are needed.

In case of a computer system the hardware, software and help records would assist as tools, but only if they were clearly explained if not then the user of the system would easily get frustrated on trying to figure out how to use new tools.

Ease of use

The term ease of use is how a system is easy to use and the person who determines this is basically the user. Many functions that come along side with programs in our computers are not used just because they are not easy enough to learn, use and remember when needed. It is the developer's and designer's task to try and understand how much time and effort the users are willing to spend while trying to figure out how to use a certain program to perform a certain task and use that to create a usable system.

According to Dumas & Redish (1999, 7), most users tend to find it difficult to learn how to use a whole system. Instead they use only a small fraction of the entire system. At first the user has a slow beginning and gradually in time he reaches a high plateau of knowledge and stays there. This might take a whole lot of time and effort.

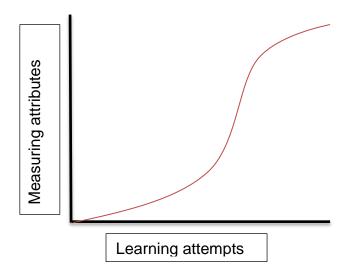


Figure 1: shows how users learn.

2.2 Web Usability

While designing a web page usability is one of the most important elements for its maximum potential success. This means designing a site with the users in mind throughout the whole process. A web page is considered user centered as long as the user gets all they need from it while not feeling imprudent, thus a user should not have to think too much nor should they take forever to find something. Every step they take to find something should always be obvious straight and clear. According to Nielsen (2000, 8), studies on users' learning behavior show that they never want to wait neither learn on how to use a site, thus they should be able to grip the functionality of the site just after viewing the home page.

Various researches show that usability should contain these factors so as to make a web site usable and functional. A user friendly site should have a navigation panel and it should be easy to use. It should be functional, clear and to the point thus one should not wonder about trying to find what it's all about. Updating the site should be done frequently so as to keep users up to date. The sites written manner and language should be at the users' level so that it can be easy for comprehension and easy to find what they want. It should have the

ability to view it in different kinds of browsers and software applications while still have a steady but not slow loading time.

An intranet is basically a private computer network that can be found within an organization. The main idea and purpose behind a usable intranet is to enhance communication of the organization and improve the employees' data sharing and knowledge. Usability of an intranet on the web means designing a web site that users can use without any difficulty. A website attributes should be evident from the start that is in terms of being accurate, easy to use and time. (Tamres 2003, 161)

The intranet benefits are that it permits round the clock access to stored information that can improve customer service. There is virtual distribution of information and team work. It offers clarity to an organization and it can make changes within an organization as it is the perfect tool in projects and internal team work.

2.3 Interface Design

According to Faulkner (1998, 141) when designing a new user interface, or assessing an existing user interface, it is important to remember the following design principles, Focus on user' and tasks that is by determine the number of users that are needed to carry out the task and also who the suitable users should be; someone who has never used the interface, and will not use the interface in the future, is most likely not a valid user. Also define the tasks the users will be performing and how often the task's need to be performed.

Perform experimental measurements like testing the interface early on with real users who come in contact with the interface on an everyday basis. Keep in mind that results may be altered if the performance level of the user is not an accurate. Establish quantitative usability specifics such as: the number of users performing the tasks, the time to complete the tasks, and the number of errors made during the tasks.

2.3.1 Principles of Interface Design

There are numerous principles in interface design thus when designing a web site a designer should integrate in the principles that mainly focus on the user while using the system so as mostly to provide satisfaction.

Simplicity

Simplicity is the mother of all principles, according to Clements (2000). He stresses that simplicity is the most important element of design. Ironically employing simplicity is the hardest thing to do as it is easy to develop a massive design by adding page upon page of features than it is to develop a simple and clear design. Users are not patient but time conscious people, hence they would not try to make huge efforts to try and learn how to use the interface and its functions rather the interface should be kept simple and straightforward.

Poorly arranged interface that is chaotic with complex functions is just not good enough for users to help them accomplish an intended task. Functions should not distract users while they try to do tasks rather they should be properly integrated such as basic functions should be visible and clear while advanced functions can be less obvious and designed in such a way that users can develop how to use them with time. (Wiley and Sons 2002, 27)

Consistency

Consistency is one of the moral principles of a user interface. End users have a consistence standard of expectancy and the user interface should be able to meet them. The system language of conveying messages should always be the same. If a user realizes a certain way of interacting with the system that is consistent then they will always do the same thing over and over again. A user should not be expected to learn one method from one area of the system and then another method in another area. (Faulkner 1998, 56)

In web pages the design format should be consistent throughout the site any changes made to the screen layout should be meaningful and be made obvious. Consistency in pages should always be observed for example page length should be maintained short with simple navigations either horizontally or vertically, long pages are tiresome to read and often users divert their attention from the site. It helps to have a consistent layout as the user usually know what they are doing at the moment and what they will do next.

Easy to learn and use

A web site should be made simple with the emphasis being placed in mind that the user needs it to be easy to learn and use rather than complex. If a website is being made for a large set of people then it might be challenging to create a site that is enjoyable to use. First and foremost the layout should be consistent. A simple and straight forward navigation system should not be hard to learn and use.

Feedback

A web site should provide sufficient information so as the users can be able to reach desired goals while performing tasks. Documentation is a part of the system that users normally don't like to use but should be provided anyway. There should be adequate feedback that the user can rely on so as not to feel lost. This helps a lot as it answers user's questions on where they are, how they got there and what to do next.

An effective interface should be able to give feedback once the user needs it, it should not just leave the user with a feeling of confusion and doubts. Some user interface have a bad habit of not corresponding to their users on relevant matters like revealing action feedback messages, for example while filling out a feedback form the user presses the send button but does not get any message in return. Users should be given feedback for their actions. (Jones referred 18.10.2011)

Aesthetics

Aesthetically designed interface should be visually pleasing and consistent with the principles of graphic design. By providing contrast between screen components with careful use of attractive and balanced colors. Certain users have minor disabilities like being color blind whereby they cannot differentiate between the different shades. The preferred colors that most can cope with are neutral colors.

The interface structure should be well organized. Placement buttons should be of same layout and same size. This helps the site to look pleasing and enjoyable to work with. Programs that are slow and lethargic should also be made or reconstructed to be fast. It is not a must that a program is graphical but it is important for it not to be unpleasant. (Talin, referred 18.10.2011)

2.3.2 Good Usability Criteria

Good usability measures the attributes of a user's experience while interacting with a system whether it is a web site, an application, a cell phone or any device operated by the user. According to Nielsen (1993, 26) good usability is composed of learnability, efficiency, memorability, faultlessness satisfaction. Figure 2 illustrates all these factors, learnability comprises of how easy and fast an end user can learn a new user interface adequately to accomplish a basic task. Efficiency measures the speed of performance that is how fast an experienced user can take to accomplish a given task. Memorability refers to if a user can recall/remember enough after a period of time without using the system so as to use it effectively or not. Faultlessness measures the errors that a user makes while using the system, the seriousness of the errors and how the user recovers from them. Satisfaction measures how much the user likes interacting with the system.

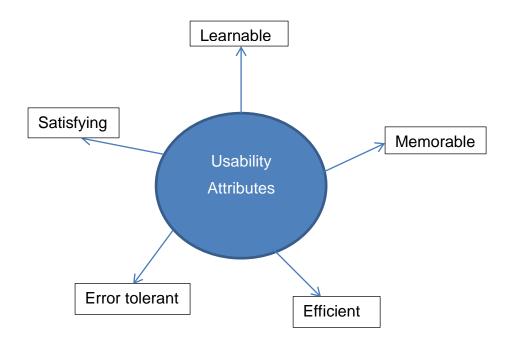


Figure 2: Usability measures (Nielsen 1993, 26).

2.4 Usability Testing Methods

There are many types of usability testing techniques that are used to test websites. Some techniques discussed by Nielsen (1993) are mentioned below.

Thinking aloud

The user is provided with the testing interface and the test tasks. The users perform the tasks while saying aloud what they are doing. Thinking aloud helps the tester understand better how the user tackles his questions, what they are thinking while doing and what they keep in mind while performing the tasks. This method is effective and satisfying but not efficient hence widely used. The aim of this method is to understand the user while interacting with the system. One major problem with this method is that once the user gets tired of thinking aloud it might be difficult to complete the tasks.

Remote testing

Remote testing is a method used when the tester cannot be available or at the same place with the testing participants this means that he/she cannot observe the test taking place at the intended time. In this testing normally the participants use computer network to send the test results, the user uses application software that allows the tester to observe the participants while working on the tasks, video recording can also be used to record the participants while tackling tasks. This method of testing is effective, efficient and satisfying.

Cognitive walkthrough

Cognitive walkthrough is carried out by some usability expert where he examines an interface through prepared tasks so as to assess its comprehension and learnability. The usability testing is mostly carried out in the design stage but it can also be used at other stages like coding and testing. This method of testing is effective but not efficient and satisfying.

Field observation

Usability test here is done by the tester going to the user's workplace and observing how they do their tasks. Normally the tester prepares a list of questions that should be tackled and the kind of information that needed to be gathered. They do this so as to know the kind of understanding the user have about the system and how the users use the system to complete the tasks. This observation method is normally used in the testing stage and deployment stage of the system.

Interviews

This usability test method is best for obtaining information in details and for interacting with the participant so as to achieve more on how they react while answering questions. The testers prepare questions about the system, and then they interview the users so as to obtain answers. In the interview the interviewer asks questions verbally and the participants respond verbally. Then the

interview takes down notes based on the answers. There are two kinds of interview methods, the structured and the unstructured. In the structured method the interviewee is more cross examined where the interviewer asks specified questions about the system.

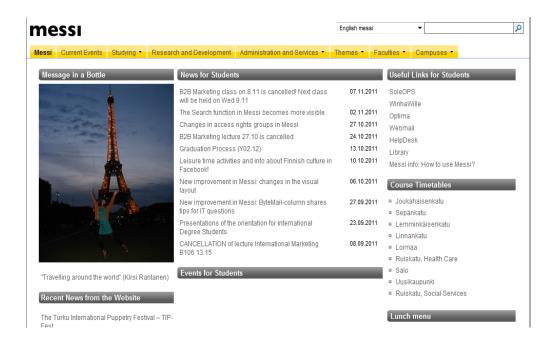
In unstructured method the interviewer does not ask specific questions as his goal is to obtain as much information from the participant as possible. The main goal is to get as much information as possible on how the user interacts with the system and their expectations about the system. These methods are mostly used in the design, coding, testing and deployment of the system. They are effective and satisfying but not efficient.

Questionnaire

Questionnaires are prepared lists of questions used to gather information from the users of a system. They are an inexpensive way of collecting data especially from a large number of people. A well-structured questionnaire can help collect information both on the general usage of a system as well as the needed specific parts of the system. Questionnaires can be based on different topics like the participant's background, the participant's views on certain tasks and their views on the general use of the system. The two main reasons for writing questionnaires is so as to ask the same kind of questions to all users and to be able to remember to ask the question. (Dumas and Redish 1999, 208)

3 USABILITY TESTING OF THE MESSI INTRANET

Usability testing is a method used to assess a software or website by testing it on real users. It focuses on measuring if a system is good enough to achieve its purpose, which is usability testing measures a systems ease of use. The usability testing in this thesis was done in the Turku University of Applied Science Messi intranet site which is shown below in Picture 1.



Picture 1: The Messi interface.

The primary idea behind a usability test is to improve the usability of a system by testing it. Usability tests measure how usable a system is with the real users who are members of groups that currently use the system or will be using the system in the future. The point of conducting a usability test is to give the tester an idea of how well the system functions so as to try to improve it.

While performing the usability test a user carries out tasks that resemble the ones done on a daily use of the system. Normally tasks for the test are not done in groups but rather individually this is to measure each individual's perspective on how they use the system. Observing and recording what the participants do while performing the task, participant's opinions on what they think about the system is also important.

The amount of time it actually takes the participants to complete a test usually varies with the kind of system and the amount of time users are willing to spend while using the system. It usually takes a minimum of days and a maximum of one month to do a usability test on users. The test can cover the whole system or just some part of it; this usually depends on the goals of the testing.

The test was based on two techniques: the questionnaire and observation. Those were the main methods used to gather data. Questionnaires were sent to the participants school email address to be filled out and returned, the general part of questionnaire questions were obtained from a study thesis about Messi that was done in Finnish. The observation was done with the Etrusoft, software that captures and records and screen movement.

The test was run in a computer lab at Turku University of Applied Sciences with Microsoft Internet Explorer browser. The general part of the questionnaire took about five to ten minutes to complete and the test took about a minimum of 15min to a maximum of 1hour to perform all the tasks. The Etrusoft software that recorded and captured screen movement was ideal so as to know how easy or difficult it was for the participants while they tackled the questions, observation of participant's reaction was noted and they were also free to ask questions from the tester on areas that they did not understand.

3.1 Objectives of the Usability Testing

The objective of this study was to find out how easy and competent Messi web site is while being used by students by observing them take part in simple task so as to help improve the site in the future.

A website's user interface plays an important part in how organizations interact with their users. Focusing on the users and tasks by engaging users in the survey process helps to create a site that is easy to learn, functional and enjoyable. Finding out if Messi meets these standards is the goal of this study.

3.1.1 Participants of the Test

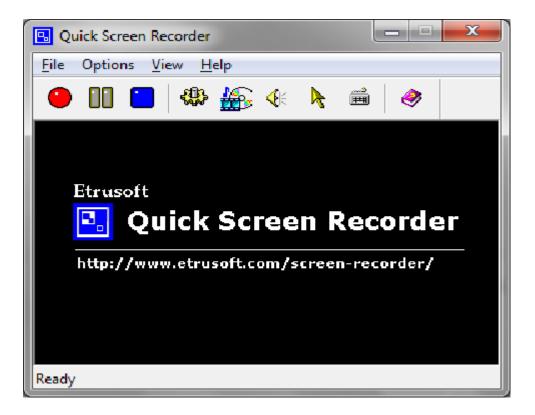
The students of Turku University of Applied Science were selected to take part in the school website evaluation. This is because the website is made for students and hence it was much easier to evaluate novice users that are already familiar with the environment. The students were from the same study group that is the Nursing department but from different study year with more attention being given to the first year students. A summary of the participants is given in Table 1.

Table 1: Report of participants.

Participant no	Age	Gender	Study year	Computer skills	Messi use	prior experience
1	31-35	Male	2011	Good	Everyday	yes
2	22-30	Female	2011	Good	Everyday	No
3	22-30	male	2011	Good	Everyday	Somehow
4	31-35	Female	2011	Good	Everyday	Yes
5	22-30	Female	2010	Good	Everyday	No

3.1.2 Testing with Etrusoft Software

The Etrusoft software is a quick screen recorder that has the ability to capture and record screen action. This software tool is used to record screen activity and change the data to standard AVI video files. It basically records anything that happens on the computer screen including the entire desktop, opening a new program, typing text, clicking buttons or selecting menus. The Quick Screen Recorder (version 1.5.0) was obtained as a trial version from the internet, it was installed in the testing laboratory and used to boost the observation method of usability testing. This software was efficient and effective. The quick screen recorder is shown in picture 2.



Picture 2: Quick Screen Recorder.

4 RESULTS

4.1 Results of Basic Questionnaire Section

The questions asked are presented on Appendix 1. Table 2 below shows how patient the participants consider themselves while using the internet. One participant was fair, three were good and one was excellent. This shows that majority of them are patient enough to achieve their goals.

Table 2: participants patience level (Question 6).

User No	Patience Level	Result
1	3	3 = Fair
2	4	4 = Good
3	4	4 = Good
4	5	5 = Excellent
5	5	5 = Excellent

When asked what kind of internet browser they used the participants response was as seen in table 3. Most of the participants use Google Chrome, Internet Explorer and Mozilla Firefox, few of them use Safari and Opera.

Table 3: Internet browser used by participants (Question 7).

Browser Type	Pai	Participants			Results	
	1	2	3	4	5	
a = Internet Explorer	а	b	b	b	d	b = Google Chrome
b = Google Chrome	С	е	С	d	С	c = Mozilla Firefox
c = Mozilla Firefox	е	С	а	а	а	a = Internet Explorer
d = Safari	b	b	b	d	е	b = Google Chrome
e = Opera	С	С	С	d	е	c = Mozilla Flrefox

When asked what grade they would give Messi they responded as shown below in Table 4. Three users graded it as excellent and two users graded it as Good.

Table 4: Grade given to Messi by participant (Question 12).

User No	Grade Messi	Result
1	4	4 = Good
2	4	4 = Good
3	5	5 = Excellent
4	5	5 = Excellent
5	5	5 = Excellent

Table 5 relates to how the site functions, navigation, ease of use, layout, speed, text visibility, accuracy of data and simplicity. The questions were answered according to the following choices 1 = Totally disagree, 2 = Disagree to certain extent, 3 = Don't disagree nor agree, 4 = Agree to certain extent, 5 = Totally agree, 6 = can't say.

Table 5: diagnosis of Messi (Question 14).

Questions	Participants					Results
	1	2	3	4	5	
Login to messi is easy from my home computer	5	5	5	5	4	5 =Totally Agree
Messi layout is effective	5	5	5	4	5	5 =Totally Agree
Messi text is big enough	4	4	5	4	5	4 = Agree to certain extent
The site is clearly structured	4	4	5	4	5	4 = Agree to certain extent
Home page is clear and logical	5	4	5	4	4	4 = Agree to certain extent

Table 5: diagnosis of Messi (continue).

The site is fast	5	5	5	4	5	5 =Totally Agree
The navigation is easy to use	4	5	5	4	5	5 =Totally Agree
Messi info is easy to find	4	6	5	4	5	4 = Agree to certain extent
I have had enough training to use messi	2	4	5	4	5	4 = Agree to certain extent
I find the information I need easily	4	4	5	4	5	4 = Agree to certain extent
Messi is user friendly	5	5	5	4	5	5 =Totally Agree
I like using messi	5	4	5	4	5	5 =Totally Agree
Messi is easy to use	5	5	5	4	5	5 =Totally Agree

Table 6 measures users' satisfaction about Messi. The questions were answered according to the following choices: 1 = Hardly ever, 2 = Partially, 3 = Frequently, 4 = Almost always, 5 = Constantly, 6 = can't say.

Table 6: user satisfaction (Question 15).

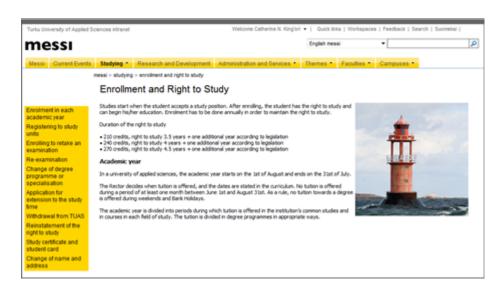
Questions	participants					Results
	1	2	3	4	5	
messi offers information that I need	4	4	5	4	5	4= Almost always
messi offers enough information	3	3	5	4	4	3= Frequently
information in messi is usually upto date	4	4	5	4	2	4= Almost always
Messi has clear language	5	4	5	5	5	5= constantly

4.2 Results of the Observation section

The following results were obtained while attempting to find the answers to the following tasks as presented on Appendix 1.

Task 16: Finding information on enrollment and right to study.

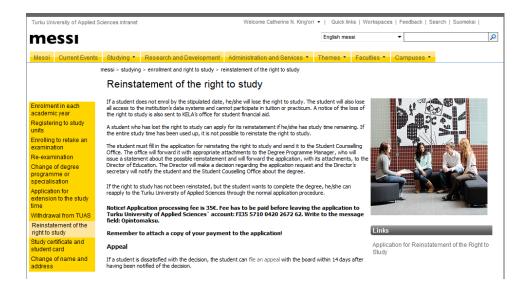
This information was easy for many participants to find although still it did not seem satisfying to most and they ended up in the enrollment for each academic year section which is still acceptable.



Picture 3: Information on enrollment and right to study.

Task 17: What would you do if you forgot to enroll present for a semester?

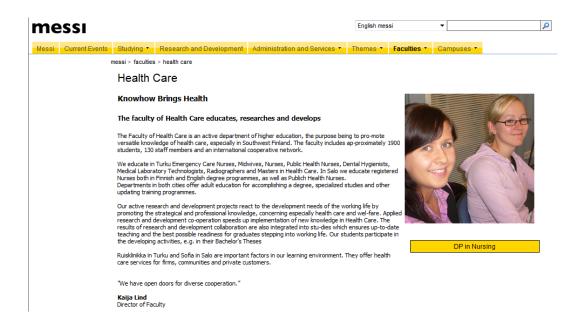
The answer to the above question was searched by many in Sole Ops, WinhaWille and some even used the search engine to look for it but all in vain. It seemed that they had seen it before but could not actally remember where to find the information, but with a little help from the link Enrollment and right to study which can be found under the Studying panel they were able to find it.



Picture 4: Information on forgeting to enroll present for a semester.

Task 18: Finding the health care director in the nursing faculty.

Few participants found this information although most of them got bored of looking for it and navigated away from the question. There is no link on where to find this information also it is not listed under the personnel page one could only find it by reading the information on this page where it was mentioned below.



Picture 5: Finding the health care director.

Task 19: Finding the contact information of their tutor teacher?

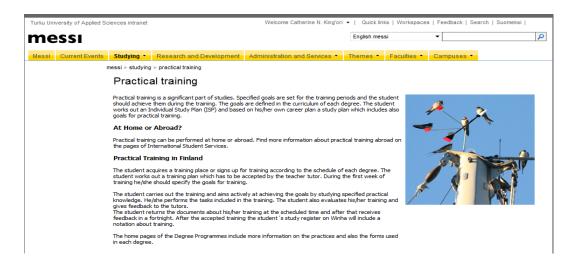
Although majority of the students were able to find this information it was really difficult and it consumed the most amount of time. The link to this page is not cleary stated hence making it time consuming to find the information.



Picture 6: Finding contact information of tutor teacher.

Task 20: Finding information on practical training in the nursing department.

This was an easy task to find although most participants found it to be unclear, as the question would be better framed to find information on practical training rather than finding it in the nursing department which actually did not exist.



Picture 7: Information on Practical training in the nursing department.

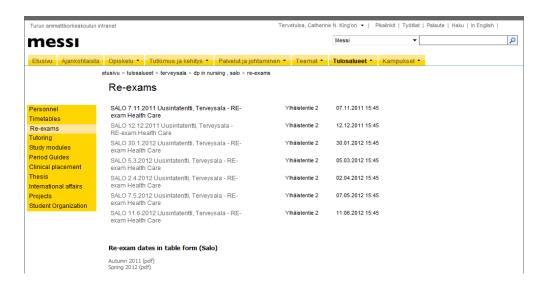
Task 21: Finding information on when one can do a re-exam in health care

Finding information on when one can do a re-exam in health care was a struggle for most of the participants as most of them found the information but in Finnish language. There was a lot of frustration expression shown on their faces while searching for this information as it appeared not easy to find. Below shows the information in Finnish and English.

Terveysala		
SALO 7.11.2011 Uusintatentti, Terveysala - RE- exam Health Care	Ylhäistentie 2	07.11.2011 15:45
Uusintatentti 30.11.2011, Terveysala Ruiskatu	Auditoriot 121 ja 131, Ruiskatu 8	30.11.2011 16:00
SALO 12.12.2011 Uusintatentti, Terveysala - RE-exam Health Care	Ylhäistentie 2	12.12.2011 15:45
Uusintatentti 14.12.2011, Terveysala Ruiskatu	Auditoriot 121 ja 131, Ruiskatu 8	14.12.2011 16:00
SALO 30.1.2012 Uusintatentti, Terveysala - RE- exam Health Care	Ylhäistentie 2	30.01.2012 15:45
SALO 5.3.2012 Uusintatentti, Terveysala - RE- exam Health Care	Ylhäistentie 2	05.03.2012 15:45
SALO 2.4.2012 Uusintatentti, Terveysala - RE- exam Health Care	Ylhäistentie 2	02.04.2012 15:45
SALO 7.5.2012 Uusintatentti, Terveysala - RE- exam Health Care	Ylhäistentie 2	07.05.2012 15:45
SALO 11.6.2012 Uusintatentti, Terveysala - RE- exam Health Care	Ylhäistentie 2	11.06.2012 15:45

Picture 8a: Re-exam in Finnish.

Finding this link in English was a little bit hard as it is not clear or directly shown when to find the information and even after finding it the navigation panel changes to Finnish while the information still remains in English, this brought a lot of confusion to the 1st year students.



Picture 8b: Re-exam in English.

4.3 Overall Comments

The usability test was rated successful. This was as observed in the quality performance of the site which was efficient, effective but not fully satisfying. The usability test also helped evaluate the site to be user-friendly with a little problems occuring in the English version of Messi. Although the site functioned properly some of the English links were not fully translated. This appeard to be a past problem with the older version of Messi that still manifest itself in this new version. The search engine worked properly but could be enhanced to ensure it provided more outcome results on the searched terms within the site.

When asked to comment about Messi most of the participants thought that the front page was quite alright and was not missing anything, although they still had suggestions on how to improve it. For example updating the homepage was suggested to at least once a month. Most commented that the English version of Messi lacked some important information compared to the Finnish version, the contents including pictures and news that were in different languages were not translated at the same. Suggestions of including chat rooms for different groups would make communication a little bit easier than using the student mail, which was believed to be of the current trend and generation.

5 CONCLUSION

Nowadays websites have become a basic necessity to the human population. Website evolvement and the continuous change in technology have created the need for usability testing. Usability test plays a fundamental role in each system and its design. It helps in the evaluation of whether a website is user friendly and enjoyable by observing how the users interact with the system.

Although usability is all about focusing on users, understanding the objectives of usability testing before beginning the actual survey helps achieve quantitative results. Based on usability testing the website tested in the study was developed for an academic organization where the students of that organization took part in the actual test. The goal was to observe and take into account the link between the users and the system having been provided with tasks that measured ease of use.

Good usability measures system attributes that are not only limited to the functionality but to the system as a whole. User acceptance is the main aim towards a system success that is a system is considered sufficiently successful if it is easy to understand, easy to use and easy to learn. If the end user feels that a system is not easy to learn, usable and too burdensome it would not reach user acceptance level and most probably fail.

The website was tested on a group of student users who were the actual users of the system. The methods used to collect the data were questionnaire, and observation with the help of the Etrusoft software that recorded the interaction of the user and the system by capturing screen actions on areas clicked. The data was then collected and analyzed. In all the different aspects of measuring usability, simplicity plays a vital role in creating simple designs that make the system easy to use and maintain.

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QUESTIONNAIRE

TURKU UNIVERSITY OF APPLIED SCIENCES

Welcome to messi intranet survey, messi is Turku's university of applied science website. Your participation is voluntary and data collected is anonymous and confidential.

This survey is based on two sections, the first section is about basic information and the second section is about the participants perception while interacting with messi.

This survey is used to determine perceived ease of use and user satisfaction of Tuas students while using messi.

Questions marked with (*) are compulsory.

Basic information section

1.	what is your age group* Choose an item.
2.	what is your gender?* □male
	□female
3.	which is your current study year?* □2006
	□2007
	□2008
	□2009
	□2010
	□2011

4.	How would you describe your computer skills? □ excellent
	□good
	□fair
	□not so great
5.	How often do you use messi interface? □everyday
	□1-3 times a week
	□once a week
	□once a month
	□not yet visit the site
6.	Grade how patient you are while using the Internet. (0 = weak 5=excellent)
	Choose an item.
7.	What internet browser do you use? □internet explorer
	□google chrome
	□mozilla firefox
	□safari
	□opera
	□other, please specify Click here to enter text.

8.	Do you have prior experience or training on such an interface? $\Box {\sf yes}$					
	□no					
	\square somehow					
	□not really					
9.	Have you faced any problems while using messi?* □yes, what kind Click here to enter text. □no					
10.	Do you think messi's frontpage is missing anything?* □yes, please explain Click here to enter text.					
	□no					
	□I can not say					
11.	what suggestions would you give to improve messi. Click here to enter text.					
12.	what grade would you give messi's homepage? (0 = weak, 5 = excellent) Choose an item.					
13.	what is good on the site? Click here to enter text.					

14. According to your opinion click the most suitable option.

	Totally disagree	disagree to certain extent	don't disagree nor agree	agree to certain extent	Totally agree	can't say
Login to messi is easy from my home computer						
Messi layout is effective						
Messi text is big enough						
The site is clearly structured						
Home page is clear and logical						
The site is fast						
The navigation is easy to use						
Messi info is easy to find						
I have had enough training to use messi						
I find the information I need easily						
Messi is user friendly						
I like using messi						
Messi is easy to use						

15. Measure your satisfaction according to the following.

	Hardly ever	partiallly	Frequently	Almost always	constantly	can not say
messi offers information that I need						
messi offers enough information						
information in messi is usually upto date						
Messi has clear language						

User's Perception while interacting with Messi

This section will be surveyed by observation, please do not fill in this part.

- 16. Where can you find information on enrollment and right to study?
- 17. What would you do if you forgot to enroll present for a semester?
- 18. Who is the health care director in the nursing faculty?
- 19. What is the contact information of your tutor teacher?
- 20. Find information on practical training in your department
- 21. Find information on when one can do a re-exam in health care.