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Evaluation and Modification of the CAHES Website

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By

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Caritas-HK
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Abstract

This project, sponsored by the Caritas Adult and Higher Education Service in Hong Kong, reviewed the complaints about the original Caritas website and provided a prototype replacement website that incorporated changes in line with the evaluation of websites developed in the WebQual system, and consistent with the needs of Caritas, as revealed from focused interviews with key Caritas staff and students.

Authorship Page

Everyone in the IQP group contributed to this report in equal amounts. The sections were equally distributed and drafts were edited and proof read by all the members of the group.

Acknowledgements

First, we would like to thank Caritas Adult and Higher Educational Services in Hong Kong. They have provided us with valuable resources for our working environment and help us secure safe living conditions in Hong Kong. The Caritas staff was very helpful in all our questions and our needs, which made the completion of this project possible. Our liaisons, Amy Chan and Catherine Li, were especially helpful in helping us find potential interviewees for our interviews. In addition, they provided us with useful information regarding the living conditions in Hong Kong. Bosco Chang was extremely helpful with the building of the new website. He provided us with all the necessary computer programs and other computer related resources. We would also like to thank the interviewees, without their feedback, we would not have been able to build a new better interface. We would like to acknowledge all the help we received from Professor Eleanor Loiacono in explaining how WebQual works. Without WebQual, the evaluation of the original website would not have been so thorough. We thank the Database team that was also present in Caritas. They provided us with Excel files in a specific format so our Common Gateway Interface (CGI) search engine would work. Finally, we would like to thank Professor Zeugner and Professor Ma for having such a long tolerance with our report. They have spent countless hours helping us revise this report even when they were not physically with us in Hong Kong. Both of them persuaded WPI in letting us pioneer the IQP path to Hong Kong, therefore letting us have this rare opportunity to work in Hong Kong.

Executive Summary

The objective of this project was to build a new website for the Caritas Adult and Higher Educational Services (CAHES) that met the needs of the CAHES staff and targeted users of the site. CAHES is a non-profit charitable organization that promotes Life Long Learning in Hong Kong and provides education for all those who seek it. The original website was built by EPO-HK Ltd. back in 1997, but due to the lack of meetings to discuss the designs of the website, it was done poorly. Many negative feedbacks were sent to CAHES via e-mails complaining about the unsatisfactory usage of the original website.

CAHES wanted to correct the mistakes of the original website by creating a new one. In order to avoid the previous problems of the site, an evaluation was conducted using the criteria specified in WebQual. WebQual is a system to measure the quality of a good website, and one of the developers of the system is Eleanor Loiacono. She is a Management professor in WPI and we interviewed her for further information regarding WebQual, since the system was still in its early stages. WebQual judges the quality of a website by using 12 key concepts. For a non-business website like the one for CAHES, nine key concepts would be enough. The nine key concepts are informational fit-to-task, interactivity, trust, response time, design, intuitiveness, visual appearance, innovativeness, and flow. The remaining three concepts are used for big business organizations to maintain communication status via the website.

Besides using WebQual for finding the flaws of the original website, 13 in-depth qualitative interviews were conducted. The interviewees ranged from a first-time Internet user to a Web designer. All the interviewees were from the student body or

CAHES staff. The interview consisted of three parts. The first two were standardized questions and tasks geared to gather information regarding the interviewee's background and gave exposure of the original site to the interviewee. Then a discussion using openended questions followed.

The results of the interviews helped finalizing the lists of requirements and recommendations for the design of the new website. From the interviews, there were three major problems that were consistent. The first was that the color usage on the original website was too bland and traditional. The second was that the website had not been continuously maintained by CAHES so there were many pages that contained outdated information. The third was the organization of the website and the links were labeled poorly, causing much confusion when navigating.

From the results of the interviews, it became clear that the old CAHES website was difficult to operate by both novice and expert users. As a result, a new website was created for CAHES. All pages created were based on the literature reviews and interviews done on the site. It also used some of the latest Internet technology such as FlashTM Multimedia and CGI search engine, to make the website more interactive and easier to navigate. It had consistent menus on every page so users could always return to the Home page if he or she ever got lost. Loading time for each page was factored into the construction.

Several recommendations emerged from this study: CAHES was advised to have a constant team of Web designers to maintain the website to renew information on the site at least every three months, the Internet technology in CAHES should also be

upgraded for the purpose of capability to support new technologies; the website should be evaluated in a set period of time.

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Chapter 1 Introduction

Caritas Adult and Higher Educational Services (CAHES) in Hong Kong is an organization that tries to find ways to help those who want a second chance in Education. Usually CAHES offers classes that help develop skills that are valuable in Hong Kong society. They are also a school organization that teaches children ranging from kindergarten to Form 7 (equiv. 1st year of college). As a total, CAHES has around 900 programs to offer and 26 different schools and centers throughout Hong Kong. In 1996, CAHES hired EPO-HK Ltd. to build a website for them, letting students have easy access to the wide variety of programs that were offered. Unfortunately, CAHES was a nonprofit organization so they could not pay EPO-HK as well as other clients, but EPO-HK agreed to help CAHES and built the website by 1997. Unfortunately, CAHES and EPO-HK Ltd. did not consult with each other regarding the design of the website. All CAHES wanted then was that the site had a fast load time and there was information within the site. The website was built with little interaction between EPO-HK Ltd. and Caritas so the design of the website had many flaws. Those flaws caused the negative feedbacks received by CAHES in the past few years. There were many problems to fix within the website, but Caritas did not have sufficient manpower. Caritas then proposed as a project to WPI, the improvement of its website. The purpose of this IQP was to evaluate the original CAHES website and then find solutions to solve the negative feedbacks and any other problems found. The solution to those problems was to build a prototype new site using the original one as an example.

There are many aspects to judging a website. One way to judge was to look at the graphic usage within the site. Judging it by appearance or the technology used to make

the website was too superficial, since that ignores the inside of the site. This other way to judge the quality of a site might be the contents it contains. All users, want from a site might be the information contained within. For such users, simple black and white may suffice. If the content was important, then should not the speed of finding that content be as equally as important? There are just too many ways to judge or evaluate a site, but what if there was a system that picks out all the important components that make a good site and the project uses those components to judge the quality of the site? Such a system was being developed and it was called WebQual. It was very lucky for this IQP that one of the assistants that was developing this new system was also a Management Information Systems (MIS) professor in WPI. Her name is Eleanor Loiacono and she provided a very detailed explanation of this new system. She had worked on it for 4 years and has refined the statistical data collected. To read more about how WebQual works and how it will be used, refer to Chapter three.

The ultimate goal of CAHES was to build a new website. They wanted to learn from their previous errors and rebuild a new website using the remains of the original one. Building a new website was not an easy task either. All the methods of evaluating a website were once again used as reminders of what a good website contains. There was also a lot of new technology that helps to make a website. Multimedia components like FlashTM and Macromedia make the site appealing while Java Scripts and CGI let users interact with the website. To learn more about how to build a good website refer to Chapter two.

This IQP was a complex project; a step-by-step layout needed to be planned for successful results. The Methodology gives a detailed account of how the IQP was

approached and it also contains design considerations in interview questions and other complex tasks.

The last few sections deal with the results of the IQP. The raw data from the interviews were processed and put to use. The final website was described from link organization to color usage. Finally the project report lists what CAHES can contribute to make sure the website will not have negative feedbacks again.

Chapter 2 Web Site Design

2.1 Introduction

Ever since Internet became popular in the 1980's, more and more organizations, schools, and shops have built websites on the Internet to provide customers with information they would like to find. They post general information on the web so customers can look them up and save customers time from going to, or calling to the companies directly. But nowadays, websites are not just plainly filled with information anymore. The Internet now has actually moved more into Electronic-commercializing. Most of them now include stunning graphics and sounds. Their purposes are to get viewers' attention so that they will remember the site and they will return to the website later. Generally, websites with attractive visual and/or audio effects should be able to get popularity from web surfers. However, sometimes a website with many visual and audio effects will actually scare web surfers away. That is because every website actually has its own general format and rules that web developers carefully consider. If they do not do so, their websites will eventually fail. So what are the general ideas to which that web developer/webmaster should pay attention?

2.2 Before Creating a Website

After the task of the website has been set, there are two important points web developers should know about: who will be visiting the website and what are their tasks? When the site was built, who would be visiting the website the most? A university website, for example, would expect to have more NON-university students to visit the site and find out more about the university. This issue usually affects the decision-

makings of the design of the site. For example, a biology website for biologists will differ in content, terminology, writing style, and depth from a biology website for students. The knowledge of computers or websites will also influence the design of the website. Not knowing the users of the site would be much like a traveler without a compass: loss of direction.

The task of the users visiting the website will determine what kind of information should be included. For example, if it were an auction site (e.g. ebay.com)¹, it would be more as an informational site rather than a graphical site, because the objective of the users visiting the site will be buying or selling items, and graphics will not be a big issue. If it were an electronic company (e.g. sony.com)², it would be a graphical site because users visit the site to find out more about their new products, and attractive graphics will be a great promotion. Without knowing the user's tasks creating a website would be similar to drawing a map without knowing the location - it would be useless.

2.3 Organizing Information

After determining the task and the users of the site, organizing the information will be the next step. Depending on the main two issues, information being put into the website should be picked wisely. For a biology website for elementary school students, for example, some in-depth knowledge of biology can be omitted. If the site was for biologists and professors, some general information of biology will not be needed.

After finding what information should be included in the website, categorizing the information will be the next step. Categorizing the information will make it easier for

¹ http://www.ebay.com. 2000

² http://www.sony.com, 2000.

users to find what they need. It would also be better for the developer to put more details on a particular page since the choices of information are categorized.

2.4 Design

When designing the interface of the website, there should be one general format for the whole website. That means no matter how many pages a website might have, the setup of the page should be about the same. If the menu on one page are on the left, and the menu of the other page was on the right, it would not be consistent. Consistency is very important when it comes to designing a website. When users come to visit a page, they expect the operation of all the pages of the site should be the same. If a choice can be found in the menu of this page, it should also be found in the other page. Consistency will be further mentioned later in Chapter Three.

2.5 Graphic Design and Loading Time

As it was mentioned above, all websites should have their own themes to be consistent. This rule applies to graphic design of the websites also. Developers should choose one or two "theme colors" and use them on all the pages of the site. If it is a company website, the color it uses should be the theme color the company uses on their business letters, business cards, posters, banners, and more. That would be memorable for users so that they will easily remember and recall the company when they see those colors. ³

Graphics can be as attractive as they can get, but that does not mean they would fit into all the websites. Many beautiful graphics are big files, which would slow down

the loading process. An appropriate amount of graphics will have a positive effect for the site. Too many graphics will result in slow loading time and intimidating users from visiting the site again. Suggestions are to avoid using large images on a website. If the image is very large and it was needed to be there, divide the image into several smaller images so that it would not slow down the loading time. It will be faster to load several pictures simultaneously than loading one big picture only. Graphics are used depending on tasks and the users of the site. If it is a commercial site, images will play a big part of the website. If it is an informational website, graphical design will not be a big issue here.⁴

Internet is all about up-to-date information with SPEED. That means loading time will be something that web developers should think about. As mentioned above, too many graphics will delay the loading time. For example, a 56Kbps modem is the most commonly used connection in regular households and it can be very slow to load a large graphic. But other places like companies and universities will either have cable modem, T1 or even T3 connection, which are much faster than the 56Kbps modem. Excessive use of graphics will NOT be a problem for people with a fast Internet connection. If the graphics are necessary, a text version of the website can be created so that people with a slow Internet connection can access the websites without waiting for the whole page to be loaded.⁵

³ Eleanor Loiacono, Personal Communication. 11/17/00.

⁴ "WPI: Help with HTML" http://www.wpi.edu/Help/htmlhelp.htm (Oct. 7, 2000).

⁵ "WPI's Web Policies and Style Manual"

2.6 Coding

Besides HTML (Hypertext Markup Language), there are many other languages that can be used for website design. JavaScript is one of the most frequently used interpreted programs today. It is mostly used for multimedia functions and for other applications such as ASP, (Active Server Page.) An ASP is an HTML page that includes one or more script (small- embedded programs) that is processed on a Microsoft Web server before the page is sent to the user. Other than coding, there are plug-ins for the browsers, allowing them to have more multimedia capabilities. Macromedia's FLASH is one of the most powerful graphic enhanced tools for the World Wide Web. It promotes user interactions and advanced graphics. Most of all, it can be implemented in a short period of time.

2.7 HTML

HTML stands for Hypertext Markup Language. It is the most standardized language for all web pages. It is the set of markup symbols or codes inserted in a file that are used for display on a WWW page. The markup tells the Web browser how to display a web page for the user, for example, the size of the words, color of the background, and which images to be displayed. Each individual markup code is referred to as an element or a tag. Some of the elements are in pairs, in which they indicate when some display effect is to begin and when it is to end.

Different web browsers, such as Microsoft Internet Explorer and Netscape
Navigator, have their own non-standard codes. For example only Internet Explorer
supports the rollover text link, while in the past JavaScript works normally only on

Netscape Navigator. The function of a rollover text link is to change the appearance of the text link when a cursor is pointing at it. The current version of HTML is HTML 4.0. But both Internet Explorer and Netscape implement some features differently and provide non-standard extensions. There are a lot of new features on HTML 4.0 and different browsers implement the markups in different ways. Therefore, in order to meet user's need, web developers will need to design pages for both browsers. ⁶

2.8 JAVASCRIPT

JavaScript is an interpreted language that is embedded into HTML. Its usage varies from enhancing multimedia effect on websites to being a supporting tool for forms and receiving data. JavaScript usually takes longer time to implement, but it is very useful for short programs. JavaScript is derived from Java, the object-oriented language derived from C++. Most of the JavaScript method and concept are similar to Java, but the language is much simpler and easier to understand. Currently most Microsoft Internet Explorer and Netscape Navigator programs support JavaScript, although the way they implement the JavaScript will be different.⁷

2.8.1 *EXAMPLE*:

(The following code is obtained from http://javascript.internet.com, 2000)

Here is a JavaScript confirm message that has variable responses. Basically, the response they get depends on what the user enters. The script is assumed to be embedded

⁶ http://www.whatis.com/, 2000.

⁷ http://www.javascript.com/, 2000.

into an html code in order to run.

```
<!-- TWO STEPS TO INSTALL CONFIRM (ALERT):
 1. Paste the coding into the HEAD of your HTML document
 2. Add the last code into the BODY of your HTML document -->
<!-- STEP ONE: Copy this code into the HEAD of your HTML document -->
<HEAD>
<SCRIPT LANGUAGE="JavaScript">
<!-- This script and many more are available free online at -->
<!-- The JavaScript Source!! http://javascript.internet.com -->
<!-- Begin
function askData() {
var inputedData = prompt ("type something!", "" );
if (confirm("Are you sure you typed "+inputedData+"?")) {
alert ("Ok, you did type "+inputedData+"!");
else {
alert ("No, you did not type "+inputedData+", did you? OK. Guess ya did.");
  }
// End -->
</SCRIPT>
<!-- STEP TWO: Put this code into the BODY of your HTML document -->
<BODY>
<CENTER>
<FORM>
<input type=button value="Confirm (Alert)" onClick="askData()">
</FORM>
<!-- Or another method... --><BR>Or....<BR>
<A HREF="" onMouseover="askData()">Confirm & Alert</A>
</CENTER>
<center>
<font face="arial, helvetica" size="-2">Free JavaScripts provided<br>
by <a href="http://javascriptsource.com">The JavaScript Source</a></font>
</center>
<!-- Script Size: 1.03 KB -->
"Hello World!!!" is typed...
       Explorer User Prompt
         Script Prompt:
                                                                                         OK
         type something!
                                                                                       Cancel
         Hello World!!!
```

Press ok



Press OK



2.9 FLASH⁸

FlashTM is very popular software developed by Macromedia. This software makes 2D computer animations easier to create. The current version of the software is 5.0. FlashTM nowadays is everywhere on the Web. First, it was because the loading time for FlashTM is very short. Since the graphics are vector-based, it can adapt to the different display sizes and resolutions, and it can run as it is being downloaded. Second, it renders better graphics. FlashTM files are more efficient, compact, and they are designed so that it is faster and easier to deliver compared to GIF and JPEG files.

Flash[™] 5.0 is an animation package that allows web designers to create their own animations. It gives them the ability to use graphics from any type of graphics or illustration tool and import them into the application. Then designers can create animation and special effects using those images, and add sound and interactivities into the Flash[™] file.

^{8 &}quot;Macromedia Flash" http://www.macromedia.com/, 2000

In order to view the content of the FlashTM files from a browser, the browser will need a FlashTM Player plug-in. FlashTM plug-in is one of the web's most accessible plug-ins. More and more companies have started using FlashTM to enhance their website's qualities. Disney, Volkswagen, Citibank, The New York Times, Cisco, and IBM are just a sampling of the thousands of sites that use FlashTM to jazz up graphics without sacrificing user bandwidth.

Flash[™] was originally owned by a San Diego-based software development company called FutureWave in 1996. It was renamed as Flash[™] when Macromedia acquired FutureWave.⁹

⁹ http://www.whatis.com/, 2000.

Chapter 3 Evaluation of a Website

Our project was to evaluate a website for Caritas and make possible recommendations to improve on it. Even though the Internet has grown exponentially these few years, there still has not been a defined standard to evaluate a website. There is a system being developed called WebQual which breaks down a website into twelve necessities: informational fit-to-task, interactivity, trust, response time, design, intuitiveness, visual appearance, innovativeness, flow, integrated communications, business process relationship, and substitutability (Eleanor Loiacono)¹⁰. These are the 12 points that need to be considered when creating a good quality website. These 12 points capture most of the points discussed by all the information gathered in our research. WebQual sums up what most researchers simply discuss so WebQual is the primarily research background that will be in use. These are the 9 most salient points from WebQual for this project.

3.1 Informational fit-to-task

The first point is "informational fit-to-task" which means the information is directed toward a specific group of the public. Depending on what that group is, the information and design of the website must suit their needs. That is the most important aspect of designing. The designer must know what part of the public they are appealing to. Every decision after that revolves around that group. That is why there has not been a

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¹⁰ Eleanor Loiacono, WebQual Advisor. 11/17/00

defined way to evaluate a website; there are just too many types to have a general template. A template will also just limit the creative aspect of creating a design.

3.2 Interactivity

Interactivity is the usage of the site. Many sites today do not just relay information but provide services. For example, Caritas is a large organization that provides programs for people seeking higher education. A website for Caritas should have ways of registering for programs and give users the ability to contact the faculty for questions. Visual effects are considered in this point also. To keep the visitor interested, the site must be stimulating. The website should make the user want to search through its contents and be curious about the organization the website is to represent. That will be the ultimate achievement.

3.3 Trust

Trust is important among people everywhere; it only makes sense to be part of the feeling one will get when using a website. If a person trusts a company as, for example, they trust their banks they will stay awhile and keep coming back. To accomplish trust there should be statements like "your e-mail will not be sold to other companies" or "this is a secure 128-bit encryption". By stating the companies' exact intentions for the user's information, the users will not doubt the companies' actions.

3.4 Response Time

This is the same as loading time mentioned in the Design section of this background, but it is also an important point to look at when evaluating the website to make sure the design has been followed. With today's many new advances in website technology, response time or load time needs to be taken into consideration. There are many new technologies to improve the visual enjoyment of the site like animated pictures or small intro movies like FlashTM. These can make significant improvements to interactivity of the site, but these new technologies take more loading time. HTML code text is fast to load, but if a picture of very high resolution is added, then the Web page will take a much longer time to load. The designer has to take into account the connection speed and browser type the user is using to visit the Web. Many households could have Cable or DSL connections nowadays, but most households have not been willing to invest in it. Many use dialup connections that use the existing phone line to transfer the data. The connection is very slow compared to the alternatives. Loading Web pages with many graphical components could take several minutes. The connection could be easily broken within those few minutes so valuable time is wasted because the website takes too long to respond. A Web page of text could also take some time to load. It is best to keep a Web page smaller than 32 Kb¹¹.

The newer versions of Microsoft Explorer and Netscape can load pictures and other multimedia components by the use of "plugins". Some of these plugins are not built into some web browsers so it requires time to download them. There are also some computers that have only text browsers that cannot load pictures so that some group of

11 www.wpi.edu/Campus/Webcom/Policies/recommendations.html, 2000

the public cannot even access most Web pages. It is always a good idea to include a text version of the website like Amazon¹² and other successful sites. A text version loads very fast so users can access the information they need and avoid the cost of loading time for graphics and pictures that are not important to the user.

3.5 Design Issues

Design issues are part of Interactivity, it looks at the aspects mentioned before regarding designing a website and make sure they have been followed. It deals with usability also, but more specifically how manageable is the site. The color usage and kinds of text are things to consider. The consistency is very important throughout any design. If a link is red in color, then every link on the website uses the same red. The designer can use color as a coordination system letting the user navigate the site more easily. Another good rule to follow is always to have a link that can go back to the main page on every page so the user will not get lost. If a company or organization has a logo or color that relates to them it is good to use it in the design. Take WPI's website 13 for example. The WPI logo is on every page that is maintained by WPI. The links are red in color and the background is gray through all the pages.

The consistency makes the users comfortable and gives them a feel for the site.

They can intuitively know which are links and they do not have to worry if the current page is outside of the organization they were seeking. It is like the feel of home, you know where everything is and you can relax. A good quality website has to have a way

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¹² www.amazon.com, 2000

¹³ www.wpi.edu, 2000

to receive feedback from those who have visited it. The ultimate test of a good website is the quality of the comments about it. There should be a link to e-mail the Webmaster with comments and questions and maybe a guest book to sign.

Sites with large amounts of information should carefully consider the size of the page containing the information since load time might be affected. If a page were very big, then it would be wise to break up the pages into separate pages or have "anchors" that can link the user to specific parts of one big page.¹⁴

3.6 Intuitiveness

Intuitiveness comes with being comfortable. If the links and format of the website are consistent as mentioned in "design issues" then intuitiveness is achieved. User will be confident to search deeper into the site, lacking the fear that they will get lost and lose the information they are looking for.

3.7 Visual Appearance

A website is basically the advertisement for the organization. But too much visual appearance will conflict with response time. It is hard to balance out quality vs. efficiency but considering many of the connection speeds available, loading should not be that much of a problem. A solution is just to create a text version only so those that cannot load quickly can still access the info on the site. Then on the graphical version, the Webmaster is free to include as many stimuli as he or she wants.

¹⁴ www.wpi.edu/Campus/Webcom/Policies/recommendations.html, 2000

3.8 Innovativeness

To make a unique site, one needs an innovative design style. A few years ago, frames became very popular for the use of organization and navigation purposes. Graphical usage is the most common way to achieve uniqueness. Using different mixes of color and nice background pictures is useful. For more innovation ideas, go to HTML Goodies¹⁵ for the most up to date technology to make the website stand out.

3.9 Flow

It is extremely important to make a website comfortable for the user. The flow is the smoothness of the site, which means the consistency of the site is thorough. Many companies' websites have themes. Take the Nike website 16 for example, their theme is sports. All their pictures are of shoes or sport celebrities. Their icons consist of balls and other stuff; they also have many graphical components on the site. These components keep the sporty theme of Nike.

3.10 Others

There are three more points on the WebQual list, but they deal with website of big corporations with business processes, and communication between different departments. These are not usual in the normal websites. The previous nine points should be sufficient

http://htmlgoodies.earthweb.com/, 2000
 www.nike.com, 2000

to evaluate and create most websites. If additional details are needed, then go to the WebQual website. 17

3.11 Website Evaluation Conclusion

The nine points discussed above are connected together. They form a complete design format for making a high quality site. Things like consistency and questions such as who are the ones visiting the site, build the base for all Web creation. When evaluating and recommending changes to Caritas website, those were the nine points we considered. All the materials that we have reviewed have stressed those points to its limits. Considering the connection methods provided at Hong Kong, many of the response time points are not a problem. Hong Kong has even better connection methods than in the United States. Plus Hong Kong is a small but world-class city; they have easy access to the latest technologies. When evaluating the Caritas website we kept in mind that the ones accessing the site were most likely first time users or those having limited exposure to website usage. We also kept in mind design issues when evaluating the website; points that we suggested for making a website. Consistency will of course be there to give them a comfortable feeling to search for their higher education. E-mail links will be everywhere to give easy access to all the personal help they will need. Those are some of the things we considered when evaluating the original website of CAHES.

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¹⁷ www.webqual.co.uk, 2000

Chapter 4 METHODOLOGY

Since the whole original CAHES website was first created with efficiency as its goal, the interface and structure of the website may not be user-friendly. It was also created four years ago, so it also needed to be updated with some more advance web technology. Our objective of this project was to modify or rebuilt the Caritas educational website so that the website will be user-friendlier than before. The whole project was divided into three main parts, and two of them were "mandatory."

Re-build the caritas interface. (Required)

Re-build the section where students can view the upcoming courses. (Required)

Optimize the interface of the whole Caritas educational website.

4.1 Methodology Steps

1. Qualitative Interviews

This type of interviews was used on Caritas senior staff. The purpose of this interview was to know more about the CAHES background and the current situation. It was impossible to give them a standardized interview because each staff is in charge of different fields. The result of these interviews was used as basis of the report and the preparation of the website.

2. Standardized Interviews

This interview focused on users' expectation of websites. The interviewees included CAHES staff and students. Most questions in this interview were the same, and included

a little quiz on surfing the original CAHES website and evaluation of it. The interview ended with casual discussion where comments on the website were exchanged.

3. Evaluation of the original website.

Other than interviewing the staff and students concerning what they wanted from the website, the project team also evaluated the original CAHES website based on the literature reviews on the WebQual. This was one of the most important parts of the project since nothing could be done if real problems were not identified.

4. Website Design

The website design part of the project started right after the WebQual evaluation of the original CAHES website. It proceeded concurrently with the interviews. Since time was limited, the site was at first built based on the literature reviews that were done before going to Hong Kong. Modifications on the new design were made when necessary, depending on the results from the interviews.

4.2 Interviews

The interviews helped to understand the approach of the previous Caritas HK

Adult and Higher Education website. Thirteen interviews were conducted. The

standardized portions of the interview were divided into three sections. The first two

parts were standardized questions and tasks. The first part was a list of brief standardized

questions that was designed to get background information about the interviewee. The

second part was a User Interface test that was designed for testing the interface of the

original CAHES website. This was a standardized test and was designed so that any level (computer or internet familiarity) user was able to complete it. The third part was an indepth qualitative interview to gather opinions and reactions toward the interface. There are two exceptions to this format. Bosco Chan and Catherine Li were interviewed by using an in-depth qualitative format. They were exceptions because their responses formed the basis of what questions to ask for the remaining interview process. The questions for the standardized interview process are listed below

:

A. Background Questions

- 1. What is your current employment status?
- 2. May you give us a brief description of your education background?
- 3. From 1 to 10, how good is your understanding of English? (1: Can't read 10: Understanding all)
- 4. How familiar are you with computer? (Use same scale as above)
- 5. Have you used the Internet before?
- 6. If yes, how often and what is the purpose for usage?
- 7. Have you been to the Caritas website recently?

B. User Interface Test

- 1. Look for the Purpose of Caritas.
- 2. Look for the listing of Full-time Programs
- 3. Now look for Elementary English (I) in Part-time Programs.
- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School.
- 5. Look for Overseas Collaboration school links.
- 6. Go back to the Home Page.
- 7. Look for a link to e-mail a comment.
- 8. Look for the quiz under the Life Long Learning Celebration activities section.

C. Caritas website (After Usage)

- 1. Is the graphic appealing?
- 2. Do you anything that looks wrong on the homepage?
- 3. What do you expect this website to do?
- 4. What do you think is the most accessed part of the Web page?
- 5. Did the Web page give you problems while you are searching?
- 6. What is the main problem with the Web page?

- 7. Did you read the history section of Caritas?
- 8. Was it easy to navigate?
- 9. Anything you like about the current setup of the Web page?
- 10. Did you find the info you were looking for?
- 11. Was there enough information?
- 12. What part of the Caritas website would you link directly from the homepage? (For easy access)
- 13. What do you recommend changing?
- 14. Any other topics worth mentioning concerning the navigation of the website?

4.3 Website Design

The design of the website proceeded simultaneously with interviews were being conducted. Since re-constructing the structure of the website would not have much to do with the user-friendly part, it was possible to work on it before all the interviews were done. But Interviews needed to be done before we did any important steps for the website since it was necessary to know the task of the website before start working on the structure of the site. Most decision makings of the new website were based on the literature reviews on the WebQual, suggestions from the CAHES staff, and data collected from the interviews.

This project required a close coordination with the Database Team, since the course selection part of the website used a text file generated by the application that the Database Team built. The function was only for the listings of all courses offered by Caritas. It was not necessary to take care of the registration part like WPI because of the high security risk in Hong Kong. This search engine part of the website used Perl CGI as the coding language. Text file search was the only option since the original CAHES server did not have a database and it was not efficient to build a new one within two months.

Chapter 5 Results of the Interviews

This section is a list of the results gotten by each interview. For clarity, important points from the interviews are extracted and listed under their commentor. For each interview's details, please refer to their transcripts located in Appendix A.

5.1 Interview with the Staff of CAHES

The staff of CAHES were the ones that wanted the Web site to be made, so it was mandatory to interview some of the CAHES staff. The staff could answer the important questions such as: who are the users, what is the purpose of CAHES, and what are expected capabilities of the CAHES Web site.

5.1.1 Interview with Bosco Chang (Organizer for Audio/Visual Technical Section)

- Home page is the most important because it gives the "first impression".
- The Home page was too bland.
- The Caritas spinning Logo was offensive.
- The original design had only efficiency in mind.
- The targeted age group is 18-30.
- There is 5-7% of the current student body that is over 40 years old.
- Caritas Web site cannot be as colorful as some commercial sites.
- He wanted to use Flash[™] so the site would look more youthful and advance.
- The content was not organized.
- Some of the information has not been updated for four years.

- Main Menu section is useful, but was hidden in the Original CAHES Web site.
- The Purpose and History page of CAHES Web site obstructed navigation.
- The organization of the Purpose and History page was a request from the staff.
- Many users would not read the Purpose or History page.
- He wanted the new Web site to have a "show hand policy".

5.1.2 Interview with Catherine Li (Assistant Organizer of Social Ethics)

- Part-time courses are more popular than Full time ones.
- The most popular Part-time course is Learning English.
- Most of the current student body are 16-28 years old.
- The CAHES Web site is mainly used for searching information on the courses offered by CAHES.
- She thinks that searching in a booklet is faster than searching through a Web site.
- She hates having to scroll through a Web page.
- The new Web site is targeted for the youth of Hong Kong.
- Color mixtures needs careful consideration.
- The original Web site was boring and too traditional.

5.1.3 Interview with Rebecca (Senior secretary of the Administrative Office of CAHES)

 Most of the previous negative feedbacks were caused by the bad organization of the Web site.

- Most of the users were looking for Part-time course information.
- It was hard to access the Main Menus page.
- Her computer usage was very moderate.
- She would chose to use a booklet to search for information rather than a Web site.
- A new browser window would pop up at certain parts of the original Web site,
 causing confusion to novice users.
- Having English and Chinese text at the same time is efficient.
- The graphics of the page needed change.

5.1.4 Interview with Wan Kwok Fai (Clerk of Caritas Francis Hsu Evening College)

- He used the original CAHES Web site often.
- He found the Purpose and History page annoying.
- He had trouble only in finding the Quiz page in the User Interface Test.
- Information was not up-to-date, "an orphanage for lost data".
- He recommends CAHES to have specialized people maintain the site.
- He hopes the new Web site can allow staff members from other centers communicate.

5.2 The Student Body

The student body was where most of the potential users are. The staff did not use the website that much because they had easy access to the most updated booklets. The younger generations used the Internet so students of Caritas were more likely to use the

CAHES website to search for information about their classes or potential classes. This group was our primary users. Catherine was kind enough to arrange meetings with randomly chosen members of the student body so the research could be conduct.

5.2.1 Interview with Cherry and Ashida

- They had trouble finding the Main Menu section.
- Both said the site was ugly.
- Navigation was hard because information was not grouped together.
- They would use Flash[™] to make the site more appealing.
- They liked City University of HK Web site the most out of HK's school sites (www.cityu.edu.hk).

5.2.2 Interview with Idy

- She had trouble finding the Part-time section because the Main Menu page was hard to access.
- The History page hides the links it had.
- Links need organization and better labeling.
- She suggested a section called "Student Life" for the new Web site.
- The color combination fits CAHES because it was conservative like CAHES.
- She would use the Web to do research rather than use a book.

5.2.3 Interview with Andy

- He knows how to make Web pages, but it was just a hobby.
- He had used the CAHES site before to do research, but could not the information.
- Like most interviewees, he had trouble finding the Part-time courses section.
- He also had trouble finding the Overseas Collaboration section.
- He would add more links to the Home page for better navigation.
- He would reorganize the link and content of the Web site.
- Making the site more colorful would not ruin the image of CAHES.

5.2.4 Interview with Wi Loun Leung

- Had never used the Internet before.
- Had trouble finding the Part-time section.
- The new browser window confused him.
- Add cartoon characters for a comical theme.
- Mentioned there was no direct link to the Part-time section from the Home page.

5.2.5 Interview with Mrs. Chan

- She is in her 50's but trying to learn English.
- She has an artistic background.
- She needed a hint for finding the Part-time section.

- Labeling for the links were not clear.
- Didn't understand the meaning of the spinning CAHES logo.
- She suggested using gold and red color for the new design of CAHES Web site.
- History page hinders the efficiency of her search.
- Make the Home page "Bigger and Sharper".

5.2.6 Interview with Benny

- He has high knowledge of computer use and design.
- He helps companies build Web sites.
- Went to the CAHES site before, but could not find what he wanted.
- Did average in the User Interface Test.
- Took long time on searching for Part-time section.
- CAHES cannot be bright and flashy because it is an informational site.
- Suggested using frames to increase the search efficiency.
- Booklets are more convenient for searching because it has well known format.

5.2.7 Interview with Jonathan

- Had the problem finding the Part-time section.
- Got confused between International Collaboration and Overseas Collaboration pages.
- Appeal was ok, but color is too simple.

- Suggested the Main Menu to be the Home page.
- CAHES do not need to be visually appealing, just have good content.
- Prefers to use the Web to search.
- Information on the original site was not up-to-date.
- Liked Hong Kong University (www.hku.hk) the most. It uses frames.

5.2.8 Interview with Daisy Wong

- Had trouble finding the Part-time courses section.
- History page was an obstacle in the User Interface Test.
- Graphics and color too simple.
- Too many CAHES logos and they do not need to be animated.
- More links on the Home page would make the searching much easier.

5.3 Results of the Web Site Team Interviews Categorized (Table 5.1).

Table 5.1 is the summation of the results of the Interviews. It contains common comments given by most of the interviewees. The top row is common problems found by the interviewees as users on the original CAHES site. The interviewees are separated into three groups according to their Internet knowledge level. There are three advanced users, five average users, and five novice users. The level of user depends on the scale they have rated themselves during the interview. The scale is from 1 to 10, 10 being completely understanding of all the functions of the Internet.

Table 5.1

	Boring Color Usage	Misleading Links	Couldn't Find Main Menu Quickly	History Section Skip	Been to the CAHES website before
Advance Users (scale 8 and up)	2 out of 3	2 out of 3	2 out of 3	3 out of 3	3 out of 3
Average Users (scale 7-5)	4 out of 5	2 out of 5	5 out of 5	5 out of 5	3 out of 5
Novice Users (scale 4 and down)	4 out of 5	2 out of 5	5 out of 5	4 out of 5	0 out of 5

Chapter 6 Analysis of the Interview Results

Now lets consider all the useful information given by the Interviews, and reach some judgments. Every interviewee had said that the graphics could be improved. They only vary in how to improve them. Bosco had hoped to use FlashTM to make the Home page more dynamic and interactive. The opening page for the new website was made with FlashTM. It gives a brief animated introduction of Caritas and its mission. Adding the opening page will make the website livelier, but it would not ruin the professional image of Caritas. Java Scripts could be used to make the menus and links interactive. Giving the Home page, a new look can be done with the usage of different color combinations. Combination of FlashTM, Java Scripts, and CGI was used in the making of the new website.

Bosco, Catherine, Mrs. Chan, Jonathan, Benny, and Wi Loun Leung all suggested that a youthful theme or color usage was the best course of design since the majority of the targeted uses are youths. The suggestion by Mrs. Chan using colors of Mei Sum Bakery was not a feasible option since color combination of red and gold by Mei Sum was suitable for older people. The focus was on the younger generation with their bright flashy colors. However, the theme cannot be too childish. There needs to be careful consideration on how a comical Home page will affect the image of Caritas in the eyes of parents and sponsors. After all Caritas was still a respected education provider. In addition, the purpose of the CAHES website was to relay information to anyone who wants it; the site was not trying to sell a product. Wi Loun Leung's idea of using comical characters would not be a suitable option. Daisy Wong did mention too many logos of

Caritas at the Home page, which ruins the look of the page; moreover, they take up important space. Caritas staff members also expressed dislike towards the spinning of the Caritas' logo. It seems to them as disrespect to Caritas rather then advertising it, so animation on the Logo was not an option to glamorize the Home page.

The next big change for the Home page was organizing the links provided there. All the interviewees had problems with finding the Main Menu section of the original CAHES website, which suggests a link that directs to the Main Menu needs to be provided. Even better was making the Main Menu links part of the Home page. That way it saves the user's time from having to load the Home page and then the Main Menu page, before searching. Pictures of CAHES are also a wonderful addition to the new Home page. After seeing the sites of other Hong Kong Universities, Ashida and Idy liked the idea of placing a picture of the school on the Home page since it lets visitors see a real image of the organization. In addition, it lets the users feel the presence of the organization.

Every interviewee also discussed the format of the whole website. The reason most of the interviewees had problems finding the Main Menu was that there was no direct link to it from the Home page, but also the labeling of the link that led along the way to the Main Menu was misleading. The link on the Home page was labeled "to browse". That label for the link was not bad, it does let the user browse a big part of the website, but it first led to the Purpose of Caritas. Then after the Purpose section, it leads to long page of text that talks about the history of Caritas and only then to more links; no links for Part-time information. At this point, a new user would have thought they were lost. The problem was a combination of bad organization of content and labeling of

links. To prevent the problem of non-informative label links, Java Script could be used for giving a short but more in-depth listing of what information could be obtained by going to this link.

The popping up of new browser windows was a major obstacle to users not very familiar with computer usage. The new window opening prevents the usage of the Back button to retrace all the steps previous. Therefore, if a novice computer user was lost on one of the Web pages, and there was no link to go to previous pages, then he or she always tries to uses the Back button. When the Back button was not operational and the novice user was lost, he or she was stuck. It was very discouraging to get lost, even if it was only in the virtual world. The user will not go back to the same site unless there was a great interest in it. This problem was easy to solve for the CAHES website. The only time when a new IE browser pops up was when it was giving a description of Part-time courses, so the new design could be displaying the descriptions of all the courses in one big page. This idea brings a new problem along with a solution. The problem was mentioned in Catherine's interview, she hates scrolling. If one page contains all the descriptions of every Part-time course, then that page will be very long and require a lot of scrolling. A solution to this new problem was putting anchors or links that go directly to the part of the page that gives the description. Since it was on the same page, there was only one load time for one page, no matter how many times the user uses the anchors to navigate. If one page was too big, then separating into several pages will increase the load time.

Now there are problems of language. Hong Kong is a very complex society and the two major languages here are English and Chinese. Even though the majority of the

users of the CAHES website will be students wanting to learn English, there are Overseas Collaboration groups and possible sponsors that only understand English and might want to see what Caritas has to offer. There was a demand for an English and Chinese language support, so Rebecca's comments might help solve that problem. She pointed out that at some sections of the original CAHES website, there was both English and Chinese text that means the same thing. This method would also eliminate the need to create two versions of the same site. If there were two versions, updating would be a problem, as the Web master would have to update two sites with the same information, but in a different language. If one site was forgotten to update, then the two sites will become different sites instead of different versions of the same. This solution would also reduce the memory space on the server.

During the interviews, several interviewees had requested the addition of some functions that were not present at the original CAHES website. Idy had suggested the addition of a Student Life section that gives new students information that was not provided on the booklets, little things that only current student of CAHES would notice and mention to potential students. For example, Idy did not know that some classes had to spread to Saturday and some classes have 4-hour breaks. This suggestion was good since many Colleges do have this section, but it was a topic that the students need to discuss with Caritas. The content of the advice and whether there was enough advice given to make it interesting needs to be evaluated by Caritas staff members, so it could not be done with the little time left. Mr. Wan Kwok Fai had mentioned that the 26 schools and centers do not communicate very well among themselves. He suggested a CAHES staff bulletin board that lets all the staffs of the 26 locations communicate and

solve problems. However, this bulletin board should not be able to be accessed by outsiders. This was an interesting idea, but security issues come into play. Also using email can solve these problems. E-mail was the same as a bulletin board if the sending list was to everyone that was a staff of CAHES. The security issues are solved by e-mail since e-mail was secure to begin with.

Chapter 7 Design of the CAHES website

Now that the interviews have been analyzed and evaluated, before modifying or even renovating the website, it was necessary to do a thorough analysis on the whole website and to find out what the negative comments were.

7.1 Negative Comments

Although there were quite a few comments sent to CAHES, the comments fell into two categories of complaint: bad interface and difficult to navigate. The comments that were received by emails were same as the ones from the interviewees. They stated that it was very hard to look up certain information in the website. For example, they had problems finding information beyond the first few pages. As mentioned in the interview evaluation, it took them a while to get to the program information and etc. They also complained that they were forced to walk through the history part of the website before getting into the main menu. During the interface test of the interview, many interviewees did not expect the one and ONLY link to the main menu was located in the second page of the history section. Some of them did not even want to read any further than the first page of the history section and clicked back to the first page of the site.

7.2 Analyzing the CAHES website

In this section of the report, the original CAHES website will be divided and analyzed parts by parts. There will be several main points to focus on, and information and appearances will be some of them. Points of each part of website may vary due to the objective of the particular part of CAHES website.

The original CAHES website has been divided into 5 parts: Main page, General information, Program Information, Colleges & Centers, and Program offered in this Season.

7.2.1 Main Page

This part of the website included all pages that could be accessed from the index.html of CAHES website. The first page provided links in which to allow you to visit the most updated Full-time program information, history of CAHES, and some outdated activities. It also has the email link to EPO-HK Ltd. But the outdated activity part can be ignored since they will not exist when the new site comes alive. Everything in the first page was set CENTER horizontally. The insignia of CARITAS was put on the top of the web page. It was modified into a GIF file that it spins. The background was set tiled. All click-able links but one email text link were all non-transparent graphics. Since the background of the web page was not pure color, the white spaces from the images can be seen because they blocked the view of the background. It was believed that the site was not designed for any resolution greater than 800 x 600, since the background fits almost perfectly when using 800x600 resolution.

The link for the history of the site was named "Surf the web" in Chinese. It was easily to make users to believe that they can find what they need after clicking the link. But then users were forced to read two pages of CAHES history before providing them the link to the main menu of the site. These two pages are mostly text. There are not many graphics. But the backgrounds of these two pages are also tiled, and the images are

not transparent either. From the look of the website structure, Main menu should be ABOVE the history section, not below it. It was not wise to put the link at the end of the second page of the history section.

The up-to-date full time program provides users with current full time class information. When entered, it led you to the Full time program information main page. It gives you choices on what type of full-time program you can choose from. The background of the web page was also tiled. Click-able links in that page are also non-transparent images. But since the images of the page were based on the background of the original page, they came out not as poorly as the first page. The pages are divided into two sections: left side was for menu, and right side was for contents. All texts on the menu side are not click-able, except the little mouse next to the description.

7.2.2 General Information

The link to the General Information was located on the main menu of the website. The first page of the General Information contains a list of organizations on the left, and a scanned flyer divided in three and set as links. The way to operate the site was simple. The flyer in the middle are just links to College & Centers, Program Information, and Head Quarters and Support offices. When the links on the left are clicked, they will lead users to the appropriate page. However, whatever the user clicks, it will disappear from the upcoming page. In other words, it will not allow you to choose the link that would lead users to the same page.

This part of the site was very simple because its links only go one level down.

The only thing that would confusion to users was the links on the left side of the page that changes on different pages. For example, if you are in the Workgroup page, the Workgroup link will not be on the left. Users will notice the links are shifted and get confused.

7.2.3 Program information

The link to the Program information was located on the main menu of the website. When entered, it led you to the program information main page and gives you all the available program categories links. There are Part Time, Full Time, Oversea Collaboration Program, and etc. The page uses table that was set in the middle, and the texts are set to align left. Generally, the setup of all program information pages is the same. When anyone of the categories was clicked, a framed page will appear. The left side of the frame was for menu and the right side was for description. When any of the links on the left side was clicked, a new browser will appear and a new-framed page was up. At the same time, there are two browsers running in the computer.

The benefit of using framed pages was to be able to keep the menu at the same spot even when you are scrolling the description on the other part of the frame. But most of the pages on the program information need to be reloaded when a link was clicked, including the menu side. That totally defeats the purpose of framed pages. Also it was NOT efficient to have one page for every single course. The description was usually short. If possible, some or even ALL the description can be put together.

7.2.4 Colleges & Centers

The link to the College & Centers was also located on the main menu of the website. When clicked, it would lead you to the Colleges & Centers Main Page. The Colleges & Centers are divided into 3 parts: Kowloon, Hong Kong and other islands, and New Territories. Each part contains colleges and centers located in the corresponding area. In each of them there is a map where the colleges and centers are located. Also for each of the colleges and centers, there was a link that leads to a new page containing the address and a map on how to get there. All 3 pages have a link that leads to Head Quarters and Support Centers. This page was different from the others; since they are mostly just offices, maps are not available.

The map for each college and center was too blurry to look at. Although SOME of the addresses have maps with transportation directions, most of them are very hard to see. Also, since Caritas counts a day school and night school at the same place as 2 different schools, Maps of both schools should be the same. But they have 2 different sites and different images even though they're ALMOST the same. The other part of the problem was that they only have HQ and SL link inside the parts. It was not included in the colleges & center main page.

7.2.5 Programmes Offered in this Season

This link can be found on the main menu of the website. The first page will provide you several links. They are Search Programs by categories, application form, Notice, and registration time for each college and center.

7.2.6 Search Programs by categories

This page was designed for users who are interested for registering classes in Caritas. Most of the classes available in this page are part-time. At first it lists all the available subjects. All the subjects are links and users can click them if they are interested. When users choose a subject, it will lead them to a framed page. All the courses of the same subject are listed on the left side of the framed page. When one of the courses was clicked, the course information will appear on the right. The information includes the brief description of the course, where the class was being taught, how much it costs, how many days of class are included, and etc. There was a link at the end of the left-side menu that leads you back to the category page. When clicked, a new browser will appear and the category page will be loaded on that window.

It was acceptable to have all the subjects available on one page. But once users get into certain subjects and start choosing available classes, it becomes inefficient. The situation was the same as the one in the Program Information. Using a whole page for one class will require possibly hundreds of pages. But unlike the program information, the information provided in this part of the site varies every season. It would be also inefficient to put all the information together. It might be the only way to do it if there was no database set up.

7.2.7 Application Form

This page was a form for registration. It has text fields everywhere. Although this was a form, it was only a static html page. Nothing can be sent through the Internet

from this site since there was no send or submit button. There are two links available, back to homepage and back to the Main Menu.

This page can cause confusion to users. Seeing text fields on the page, users will assume that it was an online application, but it was not. The page should tell users that this was a printable form. For the two links on the page, it should have one more link in there that allows users to go back to the Program Offered This Season Page.

7.2.8 Notice

The notice was just plain text. But it should at least have a link back to the previous page. Without any link on the page, it would force users to actually use the back button of the browser to go back to the previous page.

7.2.9 Registration time for each college and center

This page provides users with information like what time they can go to colleges/centers and register. It also tells the ways registrations were accepted in different schools. Similar to the Application Form page, it also has the same links.

Out of five parts of the site, this part was the most inconsistent. In the Search page, after entered into any of the subjects, users cannot even see ONE CARITAS sign or name there. For the notice page, a plain text was saved into html and there was no link there. It would give users a feeling of "sloppy." In other words, it was not user-friendly.

7.3 Overall Analysis of the Original CAHES Website

After analyzing the whole site, it was clear that the site somehow did accomplish what CAHES first proposed: simple and efficient. The site does load fast but it was not attractive at all. It might be for the best since in 1997, the average Internet connection speed was around 14.4 – 28.8 Kps. But technology advances rapidly. The internet connection speed for regular households nowadays is 56Kps or even broadband connection. That means even if a web page's size was big, it would not take as long to load. That allows the new website to have more graphical design. Overall the navigation of the original website was one of the main problems. The most noticeable example would be the one on the index page. The "browse the site" link led users to the purpose and objective of Caritas first, instead of giving them the main menu. After this analysis, there are 4 main points that are needed to keep in mind: 1. The new website will need to be consistent; 2. The site should be easy to navigate; 3. The graphics should be appropriate for the purpose of the website (this was an informational website;) and 4. The performance of the website should be efficient in loading time and accessibility.

7.4 Structure of the New CAHES website

Before building a website, constructing a structure for the whole site was very important. Although the original CAHES site might not be very nice to look at, the structure it used does make sense. Re-using the four-main-menu system will be the best choice for the new website. It was because the four main menus: General information, Program information, Program offered in This Season, and College & Centers are all self-explanatory. If the main menu needs to be changed, the menu must be simplified.

But if the way to simplify it were by taking one or two menus out or combining two together, it would be impossible. General information contains information of different organizations. It cannot be categorized as part of the College & Centers since that was NOT a building. It has nothing to do with programs so it cannot fit into either Program Information or Program Offered in This Season. General information and College & Center are distinctive. But what about Program Information and Program Offered in this Season, can they be combined as one?

Program Information and Program Offered in this Season belong to the very same category. The purpose of the Program Information was to list all different types of programs and provide a brief description on everyone of them. POS (Program Offered in this Season), only provides users with information on how to register and all the available classes in the current season. It was suitable to combine the two into one main menu. But users usually just go into the site and start searching for classes. It would be better to have a separate link available for users. The decision was made for the site's efficiency.

7.5 Contents of the website

For contents, it would be too much to redo actually all the contents in these seven weeks. It would be more efficient to use the most recent information from the original website. The data might not be updated compared to the most current information CAHSE has, but that was how far this IQP can go. Most of the content does have Chinese and English versions. But some of them either only have Chinese or English. That was one of the reasons why it was not appropriate to build two separate versions of CAHES website.

There was a discussion of what type of site should be created. During the process of preparing for the website, extensive Web surfing was done focusing on universities in HK, such as Hong Kong University (www.hku.hk,) Chinese University of Hong Kong (www.cuhk.edu.hk,) City University of Hong Kong. At the end of this research, it was decided there were three choices to choose from.

- 1. A fixed 800x600 resolution interface aligned to upper left corner.
- This interface will always appear on the very upper left corner. No matter how much information was there, the width would still be 800. The default length was 600. But it can stretch if there was more information on the page. If the page was up on a monitor with higher resolution, the page will still align to top and left. This design has been used by most big companies like Compaq, boston.com, Gamespot.com, etc.
- 2. A fixed 800x600 resolution interface aligned to top and middle

 This interface will always appear in the middle of the browser and aligned to the top.

 The situation was similar to the one above: fixed width of 800 and stretchable length of
 600. It will stay in 800 in width and in the middle of browser even if the resolution was
 higher than 800x600. This design can be found in AOL.com, HK University's website,
 and Chinese University of HK's website.
- 3. A stretchable 800x600 resolution interface aligned to top and middle

 This interface will stretch depending on the size of the browser. Its default size was

 800x600. But if the browser was bigger, the page's right and bottom sides will also align
 to the browser and stretch so that the page will cover the whole screen. This design can
 be seen in City University of HK's website, Microsoft.com, and www.wpi.edu.

This part of decision-making was very important to the future of the project, because after choosing one out of the three, the whole site will be using this design.

There are several issues that need to consider before making this decision. One, how hard was it to maintain a site with each of those designs? Two, how much time was left for the project? Three, for informative and traditional sites, which design was more suitable?

The first design and second design are definitely easier to manage than the third one, because the first two have the fixed size on width and length. It was just a matter of how much materials needed to be included in a page. But for the third design, many things needed to be considered. For example, if there was something on the right side of the page, should it move too when the resolution was higher and the browser was stretched?

After all, the project team did not make the decision on this interface. Caritas was the client for this project and they had to make this important decision. Before the design of the website officially starts, several different index pages were done and Caritas staff were invited choose. They decided to use the first design, which was the fixed 800x600 resolution interface aligned to upper left corner.

The new CAHES site was mainly divided into three different interfaces based on the design the project team and Caritas Staff have agreed on. Overall the whole site was using a basic interface structure: Banner/Title on top, left-side menu, bottom menu, top menu occasionally, and updated time above the bottom menu. The bottom menu was on every single page of the website. The links are Home, About, News, Programmes, Contact, and Caritas HK. The home link will take users back to the first page of the site.

The About link will lead users to the Purpose and Objective of Caritas. If users desire to go further, a link would lead users to the history of CAHES. The News link would lead users to the News page, which will contain the most updated news and activities of CAHES. The Programmes link would take users to the Programmes Information page, which will be discussed later. The Contact link will lead users to a brief contact information page with address, phone number, and email available. The Caritas HK link will take users to the homepage of Caritas HK Headquarter.

There are also several theme colors for this website. The colors are based on one of the CAHES brochures published in 1998. It used a special dark blue (#313063) as the cover of the book and it matches the sign of Caritas very nicely.

7.6 Interface 1

This interface was the main interface of the whole site. It was also the first design that was set for the project. It was for the index page and all pages that are one level down from the index page. The Banner contains the Caritas sign, its English name on top: Caritas Adult and Higher Education Service, and its translation in Chinese. For design purposes, some pictures were taken around the school. One of them was picked and a small part of that picture was cut and pasted into the banner. There was a black bar above it and the English was on that bar in the color of white. The sign of Caritas and the Chinese name of Caritas Adult and Higher Education Service are both aligned to the left and on top of the part of a picture that was cut and pasted. Since the requested default size of a web page was 800x600, the banner was set to have the length of 780.

At first, the updated time was above the banner. This decision was changed due to the fact that with both updated time and banner on top, and if the user was using 800x600, the top banner will take almost 1/3 of the screen and that would not be efficient. There was a top menu with links that was the same as the bottom menu in this interface. The top menu was made of graphics that are coded with java scripts, allowing the graphic to change when the cursor moves around the graphic area.

Two top menus are made when designing this interface. The second menu was made because it would be better for the banner area to take less space. The differences between two menus are that the second one was thinner and better graphically.

On the left side of the interface, there was a black menu bar there with dates on top of it. In this interface, the left-side menu contains the four main menu links: General Information, College & Centers, Program Information, and Programs Offered in This Season. That was to prevent users to surf around the website just to find the main menu page, as they usually did in the original CAHES website. A new link was also included in the left-side menu. The "Others" link was reserved for Caritas if they have any important program to post that would be staying online for a short period of time.

Although the links on the left are quite self-explanatory, it would be better if the site could provide some information about the link before users actually click on them. There are a lot of ways to do that using either java scripts or ActiveX from Microsoft. The project team first chose to use Java scripts so that whenever users move the cursor, a text description will appear below the left-sided menu. As a result, it came out nicely since it was plain text so the descriptions were very clear. But problems occurred when testing the website by increasing the size of the font on the browser. At that time, the

links were also created as text. Both links and description were enlarged and they totally messed up the interface of the web page. To prevent it from happening, it was necessary to change the text link into graphics. Another problem was that the description was too low since it was below the menu. For users that have small resolution, it would be impossible for users to view the description of links on the top. Then the Caritas staff requested to have popup description for the left-side menu. The project team warned the staff that usually those functions will not work for Netscape. But the Caritas staff mentioned that most people now in HK are using IE and it was still fine even if they are using Netscape and NOT able to see the description. So now each link on the left would have a description whenever the cursor was in the link areas.

On the right side of the page, there was a vertical bar. That bar was reserved for the Chinese title of each page. The purpose of this vertical bar was purely for the design. The background of the vertical bar was tiled and it was CARITAS in Chinese.

There are also some issues on the color of the interface. For the banner, as mentioned, there was a black bar above the picture with the English name of CAHES on it in white color. But three weeks before the end of the project, Mrs. Catherine Li came in and looked at the design. She stated that using black color as the background and white letters was a bad omen in Hong Kong. That also applied to the black left-sided menu because it used black as background also. She also explained that it would be fine for youngsters to look at. But it would not look good to other people, since black in Chinese can mean "unlucky." As a result, the color on the left-sided menu was changed into the blue theme color. For the bar in the banner, it was replaced by a much lighter color.

The following pages use the interface I:

- 1. Index page
- 2. Objective and Purpose of Caritas and History of CAHES
- 3. News in CAHES
- 4. Contact page
- 5. Program information page
- 6. ALL Colleges & Center pages
- 7. General Information Page
- 8. Programs Offered in This Season

Below are the brief description of each page using the interface I.

7.6.1 Index Page (index.html)

This page can contain ANYTHING about the website. It can contain the brief description of the four main menus with short welcome messages. It can also have upcoming programs' headline and provides links that would directly lead users to the program's web page. This page was set to be empty right now and it was reserved for the Caritas Staff to put anything they want in there. On the vertical bar it was the Motto of CAHES.

7.6.2 Objective and Purpose of Caritas and History of CAHES (about1.html & about2.html)

This page posts one of the pictures taken with the digital camera. It also has a line quoted and it was placed next to the picture for the design purpose. There are links to

the next page above and below the contents of the page that led users to the Timeline of the History of CAHES. Next page was the TimeLine of CAHES. The Timeline was divided into several sections with four events in each section. Every section was book marked and there was a link bar on the top of every section. It allows users to simply click the time and it would take them there instead of scrolling up and down. This page also has links back to previous page before and after the contents of the page.

7.6.3 News in CAHES (news.html)

This page was reserved for any news in CAHES. This page was empty so far other than the basic interface 1. The Caritas Staff proposed that they wanted to make it so that people from other departments can simply upload the file into the server and then the document can be loaded into the web page. This kind of technology was related to the technology that was needed to use for class search engine since they both need to read data from text files.

7.6.4 Contact Page (contact.html)

This page contains another picture taken by the digital camera. It has the address, phone number, and email address of the main office of CAHES. If users want to contact other places, there was a link that would take users directly to the College & Centers menu.

7.6.5 Program Information

Program Information was one of the main menus of the page, and this page was one of the only pages in the Program Information that would use this interface. It lists all different types of programs existing in CAHES. They are divided into five categories: Full-Time Programs, Part-Time Program, China Projects, Overseas Collaboration Projects, and Other Programs. Multiple tables separated them. For each category, there are several sub-categories. The other page in Program Information was the Overseas Collaboration program. It contains universities from other countries. Using Rebecca's suggestions, the universities were not sorted by countries.

7.6.6 Colleges & Centers

Colleges & Centers was another one of the four main menus. CAHES colleges/centers are divided into 4 different sections: HK island and other islands, Kowloon, New Territories, and Headquarters and support offices. The main page of Colleges & Centers gives users a brief introduction of this part of the site. Below the introduction were the four links. Below the links was the contribution of centers. When a cursor was on a graphical link, a map will appear with the contribution of colleges/centers of the corresponding area.

For each page of Colleges & Centers, there are lists of colleges and centers with full name, addresses, telephone number, and email address. Each page will also have the 4-link menu after the list of colleges/centers but without the contribution of colleges/centers. In the original page, there was a link for each college/center that

required a new browser to pop up and it would provide a map for the corresponding college/center. After several discussions, the project team decided not to have this function again since the maps were not very clear themselves and it would be redundant since the pop-up window would have nothing but information available in the original page again.

7.6.7 General Information

General Information was one of the four main menus. The setup of this part of the site was similar to the Program Information. This was the only page in General Information that would use the Interface 1 also. It would list all the organizations in this page with links so that users can choose what they would like to see.

7.7 Interface 2

Interface 2 was used for pages in the Program Information category only. It was a simplified version of Interface 1. It does not have as much color than Interface 1. The main color combination of this interface would have to be black and white. But for the banner part of the site, there are different designs for each sub-category. Although it was said that every banner was different, they are still consistent. They all have the Caritas sign and blue theme color around it, same fonts, and same size. Each sub-category would have its own introduction. The left side was the menu with all the links for that category. A possible pull-down menu will be on top if necessary. There was also a menu bar in the bottom. This was the menu that was mentioned before which will be at every page.

7.7.1 Part-Time Program

Other than the search engine of the website, this was perhaps the most time-consuming part of the website. CAHES has approximately 15 subjects for Part-Time Classes. Most of the subjects would have 10+ or even 20+ courses. English, for example, has 36 courses. To avoid having framed page and pop-up windows, left-sided menus and pull-down menus are used. The fifteen subjects are placed on the left side of the page. Since the course descriptions are short, it can be put together into one page. All the course numbers have been bookmarked and users can use the pull-down menu to search for the course descriptions they are looking for. A "back to top" link was available for users to go back up to the top of the page and search courses of the same subject again.

7.7.2 Full-Time Programs

Full-Time Program was similar to Part-Time Program only that it does not have as many courses. But its courses' descriptions are very long. Pull-down menus and left-side menu are used again. But for all the courses in the same full-time programs, their links will be stored in a pull-down menu. When chosen, it would lead users to the other page with the same menus but different course descriptions. For those that do not have more than one course, they would not have a pull-down menu since it would not be necessary.

7.7.3 Other Programs

Other Programs are somewhat different from others in the graphical way. This sub-category contains very different courses. The color and font design of each page depends on the title of the page. For example, the summer program will use a "happier" font since Times New Roman was too formal and etc. It was similar to Full-Time Program that each program only has one page. So most of the programs in the OTHER PROGRAMS sub-category do NOT need a pull-down menu.

7.7.4 China Projects

This was the smallest sub-category in the Program Information. There are only two different links on the left and only one of them needs a pull-up menu with two choices. Basically this part was similar to the other sub-categories also.

7.8 Interface 3

Interface 3 will be used for the General Information category only. The old banners from the original CAHES general information were reused. The structure of the new General Information was similar to Interface 2. The only difference was that this section was using the stretchable 800x600 resolution.

7.9 CAHES website Search Engine

For the website to be valuable for the students and staff of Caritas, course information needs to be accessed with ease. Caritas has over 900 courses offered yearly and around 300 of these courses are active at any given season, therefore manual searching through the course information takes a long time. Another Worcester IQP team

has upgraded the Data Base of Caritas so that updated information was easily accessed and managed within the Caritas offices, but not for the students. Students still have to go through the hassle of getting booklets and search manually for courses of interest.

The search engine contained in the new website will greatly benefit current and future students by providing more updated course listings. Before, there was just a list of programs offered that season on the website. After careful analysis, some courses on the current season listing were actually old and last season. The reason for the current listing not being updated was that it took much time to add and delete courses on the Web page. Caritas was lacking manpower and maintaining the website every season was not a priority.

The solution of a search engine on the new website will bring efficiency in updating. It speeds up the updating process because it uses the files exported from the data base program written by the Database IQP group in Hong Kong. The exported files are updated because the files are from the central database of Caritas. Those files are used in the production of the seasonal booklets of Caritas, therefore, the most updated information available in Caritas. Updating the database files was a necessity for the course organization of Caritas, so the complications of priorities are eliminated.

The objective of a search engine was to make searching for information easier which was what needs to be achieved so that the new website was an improvement over the older one. The search engine was made with Perl, an interpretive computer language commonly used for database and website collaboration. The search engine allows the user to search by Class Number, Class Name, or one of the 26 schools and centers. If information was found matching the query, then it returns a listing containing the Course

Number, Course Name, Begin Date, Fees, School Name, E-mail address, and phone number. There are other fields of information available besides the ones listed, but through the interviews, those fields listed are enough.

Chapter 8 Conclusion and Recommendations

8.1 Conclusions

In order to build a good website, research and interviews are needed to be done. It was necessary to know who the users of the site are and what their tasks are on the website. It was also important to know what kind of website it was necessary to build. In this case, Caritas Adult and Higher Education was an educational organization: it was categorized as an informational website. Most of the users for this website were ranged from ages 16 to 28. They usually came to the website to find available classes and upcoming events hosted by CAHES.

Since this IQP's objective was to modify or redesign the original CAHES website, the project team needed to know the real problems. To avoid biases, multiple interviews were necessary. Different types of people were interviewed, from Caritas Staff, full-time students, to unemployed part-time students. Data showed that the main problems for the website included poor navigation and outdated information. Interviewees also provided new ideas for the upcoming CAHES website. The results of the interviews are listed below:

- Not every page has links that direct users back to the Home page.
- The ability to contact Caritas was not present on every page.
- Some link's labeling was misleading.
- The Workplace English Campaign link on the Home page sometimes did not work.
- The original website was not maintained regularly.

- The homepage did not provide important links to access other important parts of the website.
- Users were forced to read the history and purpose of CAHES.
- The setup of the Main Menu page was not very efficient in helping accessing the rest of the website. (Fast loading time)
- Color usage was boring or too traditional on the original website.
- New design cannot be too flashy or in any other way, ruin the professional image of Caritas.
- The logo of Caritas should not be spinning around because spinning could be misinterpreted as disrespect.
- The targeted users are in the ages of 16-28.
- The original design was not attentive to the limited knowledge of novice users.
- Caritas website was an informational site, not a commercial site.
- There was no search engine for the courses, just long lists.
- Navigation was not intuitive.
- Information content on the website was not consistent with booklet information.

From the research of Web Quality Evaluation, it was clear that the CAHES website needed to have the following qualities: Consistent, good navigation, appropriate graphics, and efficiency. To do that, a thorough analysis of the original CAHES website was necessary before the modification was actually started. There were several technical errors discovered:

• Improper usages of framed pages.

- Improper usages of popped-up windows.
- Poor website structural design.
- Poor navigation
- Tile backgrounds
- Non-consistency of website design and content
- Web pages not adaptive to view in sizes greater than 800 x 600 resolution.

Building the new CAHES website was very time-consuming. All the research and data collected were used as references. Materials from the original site were also used. The graphics of the new website were purposely designed to be conservative because this was an informational website. Restriction of colors applied because of the difference in cultures. There was only one version of site with Chinese and English immediately adjacent since there was not enough translation through out the website and the lack of time for the IQP. With new ideas from the Caritas Staff, the website team needed to learn Perl to build a new class search engine. A total of 87 web pages were built for this project. Screenshots of the sample pages are located in the Appendix B.

From PQP to IQP, it was clear that building a good website was not an easy task to accomplish. There were many issues to be considered. For example, what are the users of the website? What are their tasks? After knowing the answers for the first two questions, then what type of website should it be? What kind of interface should it use? Was there any cultural tradition that needed to be considered?

There were more questions that needed to be asked before a good website was built. It was even harder to modify or rebuild a website. It was necessary to find out the

real problems of the original website before starting on a new one. Additional research needed to be done. Interviews were very useful because websites were to "serve" potential customers, and everyone was a potential customer. Customers could tell employees suggestions and ideas. But it was also important that the employees know how to separate appropriate and inappropriate ideas. To do that requires the employee to understand totally the real objectives and purposes of the "product," which would come from the interviews with the "clients," or the Caritas Staff.

8.2 Recommendation

As mentioned before, a website was theoretically "dead" if the site was outdated. This IQP was only to redesign the website so that it would be more user-friendly. But that would NOT fix the problem of outdated information. Based on all the research, interviews, and website constructions, several recommendations are listed for CAHES to consider:

- Website needs to be updated frequently.
- It will be necessary to assign a group of well-trained web developers to maintain the CAHES website.
- A CAHES website server should be upgraded, for the capabilities to support new technologies on the web.
- The website server should have a web-based database to provide optimized class search engine.
- Consider an online registration for classes (which requires a group of specialists and a upgrade on the website server, referenced in the recommendations mentioned above.)

- Make sure all contents of the website have both Chinese and English translations.
- The people who design or maintain the website should have direct access to the server.
- All staff and students in Caritas should be notified that there is actually a CAHES website.
- Periodically do an evaluation of the website by giving surveys to staff and students to ascertain how user-friendly the Web site is.

Chapter 9 Bibliography:

- 1. "WPI's Web Policies and Style Manual" http://www.wpi.edu/Campus/Webcom/Policies/recommendations.html#PageContent (Oct. 7, 2000).
- 2. Eleanor Loiacono, WebQual Advisor. 11/17/00.
- 3. "WebDeveloper.com" http://www.webdeveloper.com/ (Oct. 7, 2000).
- 4. "Beginning HTML at htmlgoodies.com" http://htmlgoodies.earthweb.com/ (Oct.7, 200).
- 5. "WPI: Help with HTML" http://www.wpi.edu/Help/htmlhelp.html (Oct. 7, 2000).
- 6. Brown, David. "100 Guidlines." http://www.cs.wpi.edu/~dcb/courses/CS3041/guidelines.html (March 16, 1999).
- 7. "Web Developer's Virtual Library" http://wdvl.com/ (Oct. 7, 2000).
- 8. Preece, Jenny. Human-Computer Interaction. Addison-Wesley Pub Co, 1999.
- 9. Raskin, Jef. Humane Interface, The: New Directions for Designing Interactive Systems. Addison-Wesley Pub Co, 2000.
- 10. WPI Web Team. "WPI Web Development Office" http://www.wpi.edu/Academics/Library/Web/ (Oct. 7, 2000).
- 11. Shneiderman, Ben. Designing the User Interface: Strategies for Effective Human-Computer Interaction. Addison-Wesley Pub Co, 1997.
- 12. Ware, Collin. Information Visualization: Perception for Design (Morgan Kaufmann Interactive Technologies Series). Morgan Kaufmann Publishers, 1999.
- 13. Spool, Jared M. Website Usability, a Designer's Guide. Morgan Kaufmann Publishers, 1998.
- 14. Drate, Spencer. Web Art: A Collection of Award Winning Website Designers. Watson-Guptill Publications, Incorporated, 1999.
- 15. Rees, Michael J. Designing Web Interfaces, HyperText and Multimedia. Prentice Hall, 2000.

- 16. Lynch, Patrick J. Web Style Guide: Basic Design Principles for Creating web Sites. Yale University Press, 1999.
- 17. Siegel, David S. Secrets of Successful Web Sites: Project Management on the World Wide Web. Hayden, 1997.
- 18. Fleming, Jennifer. Web Navigation: Designing the User Experience. O'Reilly & Associates, Incorporated, 1998.
- 19. Fahey, Mary Jo, Web Publisher's Design Guide for Windows. Coriolis Group, 1997.
- 20. Stein, Lincoln D, How to Setup and Maintain a Website. Addison-Wesley, 1997.
- 21. Bosco Chang, Organizer for Audio/Visual Technical Section. 1/16/01
- 22. Catherine Li, Assistant Organizer. 1/19/01.

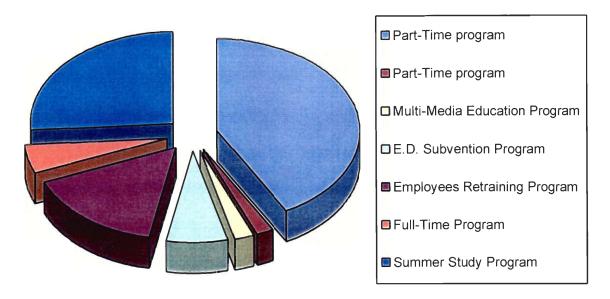
Appendix A Caritas – Hong Kong

(Information provided by the brochure of Caritas Adult and Higher Education Service published in 1998)

Caritas HK is one of the 54 members of Caritas Internationalis. Inside of Caritas HK, it's divided into many divisions. There are approximately 300 service components operating from over 100 service locations. "The Purpose and task of the organization is to be at the service of individuals, families, groups and communities as they strive in the social, economic, physical, psychological, intellectual, moral and spiritual areas of life to pass from less human to more human conditions, to be the principal agents of their own lives and destinies, to build in their environment communities grounded on truth, guided by justice, motivated by love, realized in freedom, flowering in peace." Its annual budget for expenditure exceeds one billion dollars, of which most of it is raised in Hong Kong. Other than some of the services heavily funded by the Hong Kong government, Caritas HK relies on the fees and subsidy of those who participate and use the service, and the donations as well as fund-raising campaigns throughout the regions.

Caritas Adult and Higher Education was established in 1963. It is a branch of the Education Division of Cartias HK. They use "lifelong learning; Lifewide Investment" as their motto to promote the importance of education. Service provided by CAHES includes Full-time and part-time programs, Employees retraining program, Information and Educational Technology Service, International Collaboration, and more. CAHES now has 26 colleges and centers in Hong Kong. That would include day and night schools. They are divided into 3 main colleges and centers: Caritas Francis Hsu College, Caritas Bianchi College of Careers, and Caritas St. Joseph's Institute for Further & Adult Education.

The following is the distribution of Participants by Programs:



The following table is a list of the accomplishments of CAHES.

	<u> </u>
1963	First part-time courses in domestic science and secretarial training begun.
1966	First adult education centre set up
1969	First full-time programme started.
1974	Summer Study Programme begun.
1976	Functional Literacy and Adult Basic Education Programme begun.
1977	Multi-Media Education Program providing courses through open learning using various teaching
	media begun.
1978	Tailor-made Extension Programme for our business community begun.
1980	Collaboration with various mainland institutions in organizing education programmes in
	Guangzhou, Shenzhen, Zhanjian, Kaiping and other parts of the Mainland begun. Audiovisual
	Technology Section to provide educational technology to member schools established.
1987	City Centre to provide human resource development and educational counselling service
	established.
1989	Linkage with various universities/colleges begun.
1990	Caritas Francis Hsu College approved by the former Governor to offer sub-degree programmes.
	Affiliation with International Council of Adult Education (ICAE) established.
1991	Affiliation with Asian South Pacific Bureau of adult Education (ASPBAE) established.
1993	Employees Retraining Programme to assist local employees affected by economic restructuring
	to get employment in another trade started. first graduates of Caritas Francis Hsu College since
	its approval to offer sub-degree programmes produced.
1994	Learning programmes through Cable Television launched.
1995	Overseas Studies Collaboration Scheme launched.
	The Federation for Continuing Education in Tertiary Institutions formed with CAHES being a
	founding member.
1996	Courses for new arrivals developed into a major undertaking.
1997	Centre for Advanced and Professional Studies established.
	Education and Retraining Information Network for New Arrivals established.
	Mainland Educational Projects and Information Unit established.

Appendix B

Interview Transcripts and Questions

B-1 Interview: Bosco Chang Questions

I. Personal Information:

- 1. Can you briefly talk about your educational background (school & year)?
- 2. Can you explain what your major is?
- 3. What kind of jobs have you had before coming to Caritas?
- 4. When did you first work at Caritas?
- 5. What position were you when you first enter Caritas?
- 6. Can you explain in detail how you get to where you are today?
- 7. what role does your position play in Caritas as a whole?

II. Information Technology in Caritas

- 1. When did Caritas HK first have an idea to have a website on the Internet? Why?
- 2. Other than the Caritas HK adult and Higher Education Service website, do other services of Caritas also have their own URLs?
- 3. What is the main objective of the website?
- 4. We understand that the old Caritas website was hosted by EPO-HK, Ltd. Can you briefly explain how Caritas get involved with this consulting company?
- 5. What were potential users of this website?
- 6. Were there any survey or interview being done before the website was up?
- 7. Did you know what methods did EPO-HK use to make a design for the website?
- 8. We realized that there were several main negative feedbacks. Exactly what were they? In what form they were sent to Caritas?
- 9. Is EPO-HK, Ltd still hosting the Caritas website?

III. Closing questions

- 1. Personally, how did you feel about the old website?
- 2. For a general educational website, what will be something that a web developer need to keep in mind of?
- 3. Do you think the current structure of the website is still usable? Why/ Why not?
- 4. As a professional, do you think an educational website with an user-friendly interface will positively affect the rate of students applying for classes?
- 5. Does Caritas want a fancy, graphical website or an easy to navigate and efficient website? Why/Why not?

End of Interview

B-2 Interview with Bosco Chang(1/16/01)

He received his Bachelor Degree at University of Alberta at Canada at 1986. His major was Computers and Statistical Science. In 1988-1990, he attended Chinese University of Hong Kong for his Diploma in Education. He attended school part time since he was also working at the time. 1991-1995, still at Chinese University of Hong Kong to get his Master in Education. The difference between computer science when he was in College was that it focus more on program structures and the architects of programming. Classes concern Data base structures, Fortran, Cobalt, and Data processing. He notice that now, computer science must deal with the ideas of web and internet, like networking and ebusiness. There was no big concept of the World Wide Web back then, they only had simple networks within the boundaries of the University. Mr. Chang also realized that the statistical science being taught then was not for real use in the outside world.

In 1986, Mr. Chang went straight to Caritas to work as a teacher in Computer Science and Statistics till 1989. From 1989-1991 he was the Prefect of Studies. Then from 1991-1995, he was a principal in one of Caritas Schools. In 1995 till now, he is the Organizer for Audio/Visual Technical Section. That section is in charge of the production of teaching materials like making overheads to present in class. Then they added a TV studio for the production of educational videos and promotional ads for Caritas. In 1995 there was a reform to make it more of an IT school, this was the 1st major project Caritas undergone to update itself. The administrator said that the equipment they are using was outdated and needed some more IT equipment. Back then, due to financial availability, they only have 14 computer room for the whole Caritas Organization in Hong Kong. They reformed in the proper time because it was in that period where the Pentiums came out, so 3 of Caritas schools were the first ones to get Pentium computers. Now they have 27 computer offices and over 1000 computers. They also have two servers, one for mail and the other for web. In 1998 they use isdn lines for video conferencing purposes, this was their 2nd project. They mostly conference with Shangai, but it cost too much for the long distance call, because how China use outside calls fees to compensate for the loss in the local calls. The 3rd project was to get the staff to use all this new IT equipment. They had to use "tricks" and other promotional ways to get them to use it. For example training courses or eliminating the access of fax so they will be force to use the email as means of communication. The acceptance part was the hardest part of the project, but it worked out. Checking the activity logs in 1999, it seems that the tactics used was pretty successful. Every email account was active, but they were still only used for work related purposes. Mr. Chang realized that some of the faculties haven't incorporated the e-mail use into their personal lives, which was part of the objective of this 3rd project. Their next proposal is the in 2001-2002 to migrate to a bigger server to have a data server.

The proposal for the website was presented at 1996, and the website itself was active at 1997. It was created by EPO-HK Ltd. for the price of \$20000 HK. The design for the website was not discussed thoroughly due to the relative cheap cost of the payment at the time. EPO-HK was first contacted as a guest speaker to classes about the building of a website. Later they were hired to build a homepage for Caritas. The main issue for the design of the web page was speed. Back then the target group for Caritas' website was people who wanted to enroll in the courses provided by Caritas. But most of those people were poor so their internet access would be slow. The website design was made to support the 28.8 modems used in those days. After EPO created the website, all the updates and maintenances work was done by Caritas. There was another Caritas Hong Kong website (www.caritas.org.hk), but that is more of the social working dept. Where this one is the educational. Since social workers don't have an income, they have limited IT equipment. So their website is hosted by EPO. The web page for Caritas Adult and Higher Education was hosted on their own servers. This department managed to get more fundings because they have tuition as an income. Their main financial problem was the issues regarding 1997 and that Caritas is a charity organization. The reversion of Hong Kong to China has cut a lot of the funding of Caritas, so they have limited money to spend. Once they have enough funding, they hope that they could get their hand on enough laptops to give to the faculty so they can do work in the limited space of their desks. The cost of a notebook computer is much more expensive, but due to the limited space, it couldn't

be helped. If more funding is available, then they also to have a more professionally website done for them.

The organization of Caritas Adult and Higher Education branch is consist of a Director, then Coordinator, then 3 organizers and then 15 principles for 26 schools/centers. The director is Rev. Michael Yeung, he oversees most of the operation, but he concentrates on the elementary schools and handicap children educational centers. The Coordinator is Andrew Ma, which is in charge of the secondary school levels and up. He has the 3 organizers to help him. Then the 15 principles are disturbed to the 26 schools/centers. Some of the principles have to oversee more than one schools/centers because of the lack of principles for each school/center. Mr. Chang said, "Usually a person working in a volutary agency must do more than what their original job was".

The design of Caritas Adult and Higher Learning website has to appeal to the a vast number of ages. The major age group of users are between 18-30's years old but there are also a few courses that appeal to the elderly. There is a 5%-7% amount of students that are over 45 years of age, so the design of the website must appeal to all age levels. Mr. Chang also expressed that he didn't think that creating two separate version of the website would be a good solution to the problem of slow connections. Yes if there was a text or non-flash version, there will be a solution to the loading problems of the site, but a new complication arises. The new problem is having to maintain the website. If there was a update or correction needed to be posted on the web, then changes have to be added to both versions. Sometimes some additions aren't added to one so two versions of the same thing aren't consistent and info is lost in this process. Mr. Chang also expressed interest in a "show hand" design policy to help with the navigation problems. Before, there were many feedbacks by e-mail that the site was very hard to navigate or to obtain info and it was boring. He wanted a "show hand" design that is menu-driven. What is meant is that there will be a side menu that provides links to major access zones of the website. The menu is a table of contents, exposing all that the website has to offer. Then just a few clicks with get the user to their desired destination. What should be in the website is background information, "what's new", schedules, objectives, contact info, and courses info. Mr. Chang hopes to use the "what's new" portion to provide a place to post the new courses offered and get a feedback of the interest level, kind of like testing the waters before going in. He has looked at other university sites and thinks that they are also too boring or has too many pictures to load. Mr. Chang thinks that photos aren't as important to a website since their quality is usually not that good and it might waste valuable loading time. He wanted the new site to be more on the appealing and trendy kind, but not so much that it would ruin the image of Caritas to be a professional Education provider. Loading time is also a big issue also.

B-3 Interview with Catherine Li Questions

I. Personal Information:

- 1. Can you briefly talk about your educational background (school & year)?
- 2. Can you explain what your major is?
- 3. What kind of jobs have you had before coming to Caritas?
- 4. When did you first work at Caritas?
- 5. What position did you get when you first enter Caritas?
- 6. Can you explain in detail how you get to where you are today?
- 7. what role(s) does your position play in Caritas as a whole?

II. Caritas Adult and Higher Education Service Website

- 1. When the idea of CAHES website first came out, who were the targeted users?
- 2. Was there any evaluation for registered students asking for how they heard about Caritas? If not, what are the percentage for those who heard about it from the website?
- 3. Does any of the staff use the CAHES website? For what purpose?
- 4. What are the categories of courses offered CAHES?
- 5. Out of all the courses available in CAHES, what are some of the most popular courses?
- 6. If possible, can you give us a recent approximate of how many people registered for each category?
- 7. Do the courses offered have their own websites, providing students with the syllabus of the class online?
- 8. After users found the course they would like the register on the web, what are the ways that they can register?
- 9. What are other ways that people can find out about the courses offered by CAHES?
- 10. Are the courses on the web updated frequently?
- 11. Did the registration rate go up ever since the website was up?

III. Expectation for the renovated/modified CAHES website

- 1. In your opinion, is there anything missing in the current website?
- 2. What are the things that should be added so that it would help those who are interested in taking Caritas courses?
- 3. Please rate the current CAHES website, from 1-9: 1 as Poor, and 9 as Excellent. Why?

End of Interview

B-4 Interview with Catherine Li(1/19/01)

Catherine Li attended University of Manitoba in Canada. She graduated with a degree in Counseling Psychology. She then went to work at Caritas in 1985 after University of Manitoba in the Caritas Bianchi College of Careers. From 1987 to 1988, she went to China on behalf of Caritas to teach English. From 1990-1992, Catherine worked to obtain her Diploma in Adult Education part-time while she continues to teach in Caritas. Her Diploma in Adult Education was from University of British Columbia in Canada, but Catherine remained in Hong Kong. She can do that because University of British Columbia sent over professors to have class part-time. The Diploma was targeted at working teachers so the class time was during school vacations and it was very intensive schedule. After being a teacher for 4 years, she held a position at the Academics Affair office. Now she holds the title of Assistant Organizer, so she helps out Amy Chan, which is the Organizer. Mrs. Li is in charge of Social Ethics in the Adults and Higher Education Department. She also reviews the curriculums and student developments.

Caritas Adult and Higher Education department offers a very wide selection of courses. There are roughly 300 active courses and a selection of around 900 total. They range from topics like English for business to courses on how to cook daily foods. Most registration processes are done by phone. Also most of the course info are mostly obtain through the usage of booklets that have been updated every 3 months. Compared, course booklets are much more popular then the usage of the Caritæ Web page for course info lookup. Even Mrs. Li admits that she has never used the Web page for to look up any info that she needs. She usually picks up one of the course booklets rather than open up a web page. She also hates having to scroll all over the place to get the information compared to just flipping a few pages in a book. That seems to be the consensus of most of the staff at CAHE. They usually don't use the Web page as means of resource, it is more of an advertisement tool for CAHE. Even that is the hope for the Web page, it has been a very great success. Yes, there has been an increase of the number of enrollments, but that is due to the new courses that were added throughout the years. From speculation, Mrs. Li believes students of CAHE are still getting most of the course info by means of the booklets that are updated every 3 months.

Mrs. Li mentioned that the Web page wasn't "flexible, dynamic, and too basic". She believes that the target audience is younger people around the age of 16 to 28. Mrs. Li hopes that the website will be a little more innovative, unlike the other University Web pages, which she also says is "Traditional and Conservative". The target age group is so young because in Hong Kong, middle age people haven't grasp the usage of a Web page.

B-5 Interview Transcript of Rebecca (Staff)

Background Questions

1. What is your current employment status?

Answer: Senior secretary of the Administrative Office of CAHES.

2. May you give us a brief description of your education background.

Answer: Complete Form 6 (High School), then one full year of Post Secondary studies in Business Studies. Work at Banking – loans administration after graduation.

3. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: 8

4. How familiar are you with computer usage? (Same scale as above)

Answer: 4

5. Have you used the Internet before?

Answer: Yes, but with help of son.

6. If yes, how often and what is the purpose for usage?

Answer: 1 hour a week. Mostly setup by son (age 14) for listen to radio programs missed. Work related, mainly e-mail.

7. Have you been to the Caritas website recently?

Answer: No

8. If yes, why did you visit it?

Answer: Not applicable.

User Interface Test

1. Look for the Purpose of Caritas.

Result: Just one click from homepage.

2. Look for the listing of Full-time Programs

Result: Went directly to that page. Just one click.

3. Now look for Elementary English (I) in Part-time Programs

Result: Took a little clicking since she is not use to using the Internet on her own. First went to English Work page, then to purpose and then back to Home page. Only after a little more clicking did she realize that the history section could access the other pages. When she arrived at the Main Menu, she found the part-time program page easily.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School Result: She had some hard time getting backward, since the English I elementary description page has open a new Explorer window so she was confused when she couldn't use the back button to retrace her steps. We had to tell her that idea since she couldn't figure it out for few minutes.
- 5. Look for Overseas Collaboration school links.

Result: Was pretty quick, just page back and there was the link to overseas info.

6. Look for a link to e-mail a comment.

Result: Found it easily.

7. Go back to the Home Page.

Result: One click to get back to home page.

8. Look for quiz under Life Long Learning celebration section.

Result: Went directly, she remember actives page when she was reviewing the home page.

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer: "Boring", Color is not colorful enough. Logo shouldn't be spinning.

2. What do you expect this website to do?

Answer: To give details of courses offered. Let user search for classes.

3. Did the Web page give you problems while you are searching?

Answer: Not organized well.

4. What is the main problem with the Web page?

Answer: Not updated, and Menus not available at the Homepage.

5. Did you want to skip the history section?

Answer: Yes, there was no reason, wouldn't be interested in it.

6. Was it easy to navigate?

Answer: No, no leads or tips for searching.

7. Anything you like about the current setup of the Web page?

Answer: It is average, but some pages has both English and Chinese counter parts. This is convenient.

8. Did you find the info that we asked you to find?

Answer: Yes.

9. Was there enough information?

Answer: Yes.

10. What do you recommend changing?

Answer: Give better menus at the start (Homepage).

11. Any other topics worth mentioning concerning the navigation of the website?

Answer: The most visited page is the Home page. It should contain better links.

Other comments:

She thinks the mostly likely users are students or people that want to participate in the programs offered. She thinks that the Home page is the most visited part of the site because it is the starting point and there should be better links for navigating the site better. Rebecca said that they come most likely to look at the programs so the Full time and Part time programs is a must to link starting from the first page. She likes the idea of having Chinese and English at the same time. The Chinese is convenient to most of HK population, but having English there is also convenient to the Philippians that works as maids here too. Their native language is English so a Chinese site would be difficult for them. Also most organization sites are written in English anyways. The last idea that she recommended is to organize the overseas collaboration section. She suggested that grouping them by their country would make the search easier. She also would rather use a book more if she needed to search for information that is also contained in the website. One more thing is that she wasn't very aware of the use of the "Back" button provided on the tool

bar. She didn't have enough experience to use one of the most useful buttons provided by the browser. And at the section with the Part-time Elementary English I course info, she didn't realized that the link she clicked to get there opened a new browser window without her knowing. The new browser window was new, so it didn't have a Back button so she was stuck. We have to help her out.

B-6 Interview Transcript of Wan Kwok Fai (Staff)

Background Questions

1. What is your current employment status?

Answer: Clerk (Night School)

2. May you give us a brief description of your education background.

Answer: Middle School (Form 5)

3. Do you know Chinese? (1-10 1:can't read 10:Able to read all)

Answer: 10

4. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: 6

5. How familiar are you with computer usage?

Answer: Pretty good (use for work) 8

6. Have you used the Internet before?

Answer: Yes

7. If yes, how often and what is the purpose for usage?

Answer: Use internet for e-mail and searching other topics of interest. Usage quite often at home. Not work related much, because work place is not equipped with internet access.

8. Have you been to the Caritas website recently?

Answer: Yes, this morning

9. If yes, why did you visit it?

Answer: Look for phone number for contact.

User Interface Test

1. Look for the Purpose of Caritas.

Result: Just one click from homepage.

2. Look for the listing of Full-time Programs

Result: Went directly to that page, since he is staff and most information requested that he answers can be answered through that page.

3. Now look for Elementary English (I) in Part-time Programs

Result: Found easily, went to Program Info.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School Result: Went straight to it since he use that page a lot for contacts.
- 5. Look for Overseas Collaboration school links.

Result: Was a little lost, searched a bit. First looked at Full-time Programs. Then went to part-time and found it.

6. Look for a link to e-mail a comment.

Result: Found it on the same page.

7. Go back to the Home Page.

Result: One click to get back to home page.

8. Look for quiz.

Result: Didn't know that there was a quiz, gave up at the end. Didn't know about quiz because it was part of a activity page that hasn't been updated since 1999.

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer: No, it is too common and boring.

2. What do you expect this website to do?

Answer: Provide up-to-date data about course programs. Provide updated contact info

3. Did the Web page give you problems while you are searching?

Answer: No

4. Does opening new Explorer windows annoy you? (relevant for

http://www.caritas.edu.hk/pi/p002/p002.htm)

Answer: Yes, it wasn't convenient. But I could find my way back.

5. What is the main problem with the Web page?

Answer: The webpage doesn't have enough updated info to be useful. Lack flexibility.

6. Did you want to skip the history section?

Answer: Yes, nobody was looking for it or cares.

7. Was it easy to navigate?

Answer: Some what, I have used it before.

8. Anything you like about the current setup of the Web page?

Answer: No

9. Did you find the info you were looking for?

Answer: Yes, but not sure if the info is correct and up to date.

10. Was there enough information?

Answer: No there wasn't enough. It just have the same info as some brochures, more details like Duration of class, What are the previous requirements are missing from class descriptions.

11. What do you recommend changing?

Answer: The main problem is that there isn't a group of people dedicated in updating the website. The web page is just a dumping ground for info, they just leave the information there, and never updated when needed.

12. Any other topics worth mentioning concerning the navigation of the website?

Answer: The navigation of the site isn't hard, because I have used it before. It would be good to provide a link at the homepage linked directly to program offers and descriptions since that is what many users look for anyways.

Other comments.

If possible, create a bulletin board or post up board for the staff of Caritas as a way to contact with each other. Caritas departments are not communicating very well, they are under the same organization, but different departments don't share their information with each other. A post up board will provide a good way to post changes or information relevant to the staff only. Don't want the outside users to see it too, so Caritas privacy is maintained.

Another concern is feedback management. A user is able to give feedback through the web page, but is the feedback or comment listen to. Does anyone actually look at the feedback and does something about it. There isn't a set person or group that handles and process feedbacks or comments. So if there is a question sent through comment link, then who will answer the question for the user.

Still the biggest problem with the web page is not the appearance, but how to maintain and who will handle the information and its update.

If web page is improved and the information is up-dated "I would use the page more often rather than flip through a book and look for it that way".

If outsider was searching, some might left the website before finding what they look for since it is hard for non-users.

B-7 Interview Transcript of Wi Loun Leung (Student)

Background Questions

1. What is your current employment status?

Answer: Form 3 (Grade 9, equivalent)

2. May you give us a brief description of your education background.

Answer: Working and going to school at the same time. Not much time for other hobbies.

3. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: 3

4. How familiar are you with computer usage?

Answer: 2

5. Have you used the Internet before?

Answer: No

6. If yes, how often and what is the purpose for usage?

Answer: Not applicable.

7. Have you been to the Caritas website recently?

Answer: Not applicable.

8. If yes, why did you visit it?

Answer: Not applicable.

User Interface Test

1. Look for the Purpose of Caritas.

Result: Just one click from homepage.

2. Look for the listing of Full-time Programs

Result: Went directly to that page. Just one click.

3. Now look for Elementary English (I) in Part-time Programs

Result: He had to search for quite a bit. He checked almost all the links at the Home page. Then he saw the history page, he scanned it to look for the Part-time listings. After scanning the history he found the link to the Main Page. After that he found the part-time listings and the English course. The English course link opens a new window, but since he didn't know much about computers, he was stuck. We had to help him out.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School Result: He found it after we closed the extra window.
- 5. Look for Overseas Collaboration school links.

Result: This took some time to find. He went into General info page and saw a link for International Collaboration, he thought it was what we were looking for. After some searching, from the Main Menu to the Home page. We had to give him hints to lead him back to the Main Menu and find the Overseas listings.

6. Look for a link to e-mail a comment. **Result:** Found it with no problem.

7. Go back to the Home Page.

Result: One click to get back to home page, by link.

8. Look for quiz.

Result: He went to it directly since he has been to the activity page for a few times while looking for the previous information.

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer: It is ok. Bored and simple.

2. What do you expect this website to do?

Answer: To give descriptions of the courses offered.

3. Did the Web page give you problems while you are searching?

Answer: Yeah, the links is not well organized.

4. What is the main problem with the Web page?

Answer: Not enough links.

5. Did you want to skip the history section?

Answer: I read it only to scan it to look for leads for the Part-time listings.

6. Was it easy to navigate?

Answer: Not enough links.

7. Anything you like about the current setup of the Web page?

Answer: Not much change.

8. Did you find the info that we asked you to find?

Answer: Yes. But with hints.

9. Was there enough information?

Answer: Yes.

10. What do you recommend changing?

Answer: Don't make the logo too big and take up so much room.

11. Any other topics worth mentioning concerning the navigation of the website?

Answer: The Home page needs to have both Full-time links and Part-time links.

Other comments:

This is his first time using the internet, we had to give him a quick tutorial about links and how the cursor of the mouse change to a finger after going over links. He suggested using themes to the website. He recommended using a more comical theme. Use animated characters like Hello Kitty and McDull to make it comical and appealing.

B-8 Interview Transcript of Cherry and Ashida (Student)

Background Questions

1. What is your current employment status?

Answer: Both: Student of Caritas, Post Secondary

2. May you give us a brief description of your education background.

Answer: Both: Performing Arts study.

3. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: Cherry: 6-7 Ashida: 6-7

4. How familiar are you with computer usage?

Answer: Cherry: 4-5 Ashida: 6

5. Have you used the Internet before?

Answer: Both: Yes

6. If yes, how often and what is the purpose for usage?

Answer: Cherry: 7-10 hours a week. But no comp at home. Mostly e-mail.

Ashida: 20 hours a week. Research, browse, chat.

7. Have you been to the Caritas website recently?

Answer: Both: No

8. If yes, why did you visit it?

Answer: Not applicable.

User Interface Test

1. Look for the Purpose of Caritas.

Result: Just one click from homepage.

2. Look for the listing of Full-time Programs

Result: Went directly to that page. Just one click.

3. Now look for Elementary English (I) in Part-time Programs

Result: They had to click for a while to find it. They went to the Full-time program page quite a few times. They said that they were "sleepy" looking for it. When they got to the history page, they skipped over it. Once they got the main menu, they are then there.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School **Result:** Went straight to it..
- 5. Look for Overseas Collaboration school links.

Result: Directly to there.

6. Look for a link to e-mail a comment.

Result: Found it on the same page.

7. Go back to the Home Page.

Result: One click to get back to home page.

8. Look for quiz.

Result: They went to the quiz directly since they saw it before from searching before.

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer: No, it is too common and boring. Very bland colors.

2. What do you expect this website to do?

Answer: To give details of courses offered. Contact info.

3. Did the Web page give you problems while you are searching?

Answer: Not really, it was just not organized well so there was a lot of clicking.

4. What is the main problem with the Web page?

Answer: Both: It has a boring color format.

5. Did you want to skip the history section?

Answer: Yes, because someone usually has a target to go after, don't want to waste time to read the history (Ashida). Unless they are bored or stuck (Cherry).

6. Was it easy to navigate?

Answer: Not really, a lot of searching before reaching to the main menu.

7. Anything you like about the current setup of the Web page?

Answer: The history is forced, it is good because it makes new comers at least read a little of it and know of its existence. Though it is better to put it to just link it and gives the user an option. (Both) One of the pages has a good color scheme (Full-time Chinese course page). (Ashida).

8. Did you find the info that we asked you to find?

Answer: Yes.

9. Was there enough information?

Answer: Yes there is enough (They checked courses they have taken and compared the info available there). But there could be more, like a complete course outline and thorough schedule.

10. What do you recommend changing?

Answer: The color scheme needs to be changed. The color is too boring, get sleepy seeing the same colors. Add a menu of links for faster access to certain important parts of the site.

11. Any other topics worth mentioning concerning the navigation of the website?

Answer: It would be a good idea to color coordinate the different sections of the site. So helps to distinguish the other parts from each other easier.

Other comments.

We then showed both users different Hong Kong school website and let them give us how they compare to Caritas'. We had Hong Kong Polytechnic University (www.polyu.edu.hk), City University of Hong Kong (www.ust.hk), and Hong Kong University of Science and Technology (www.ust.hk). They preferred the City University of Hong Kong Home page the most. They like the color usage and the java script usage for the interactive menus. They don't like too see the logos or emblems of schools, it gives them too much of a sense of school. They also think that most attractive sites uses Flash to glamour itself. They do point out that commercial sites are different from information sites like Caritas. Commercial sites like Nike, and other trendy sites has to appear pretty with a lot of glitter. It is different for University sites or Informational sites; they have to maintain a presence of seriousness. They don't like how most University sites use all English for text. Since their English is only average, sometimes they have trouble searching within the site.

B-9 Interview Transcript of Idy (Student)

Background Questions

1. What is your current employment status?

Answer: Student of Caritas, Post Secondary

2. May you give us a brief description of your education background.

Answer: ITB (Internet Technology Business).

3. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: 4

4. How familiar are you with computer usage?

Answer: 6

5. Have you used the Internet before?

Answer: Yes

6. If yes, how often and what is the purpose for usage?

Answer: 25 hours a week, Web page making, browse for info, e-mail.

7. Have you been to the Caritas website recently?

Answer: No

8. If yes, why did you visit it? **Answer:** Not applicable.

User Interface Test

1. Look for the Purpose of Caritas.

Result: Just one click from homepage.

2. Look for the listing of Full-time Programs

Result: Went directly to that page. Just one click.

3. Now look for Elementary English (I) in Part-time Programs

Result: Took a little searching. She clicked every link before realizing that the Purpose page continues to the History and then it goes to the main menu. From there it was directly reached.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School **Result:** Went to it with no problem, the link was clearly marked.
- 5. Look for Overseas Collaboration school links.

Result: Went back to Home page first. Then went back to Main menu. Then she found the link easily after that.

6. Look for a link to e-mail a comment.

Result: Found it easily.

7. Go back to the Home Page.

Result: One click to get back to home page.

8. Look for quiz.

Result: She went to the quiz directly since they saw it before from searching before.

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer: It is ok. The colors are traditional. But not appealing.

2. What do you expect this website to do?

Answer: To give details of courses offered. Contact info. Information about the school. Registrar for classes.

3. Did the Web page give you problems while you are searching?

Answer: "Yeah, I got lost easily"; the information is not organized well enough to search it easily and effectively.

4. What is the main problem with the Web page?

Answer: The information is not organized so that the narrowing can start at the Home page, unlike clicking blindly at the first page. Menus can give you a good idea where to head to and to where is the most possible section that contains the information being looked for.

5. Did you want to skip the history section?

Answer: Yes, there was no reason to read about it even if not doing this interface test.

6. Was it easy to navigate?

Answer: No, it took awhile to search for the Main menu because it was hidden in the Purpose section.

7. Anything you like about the current setup of the Web page?

Answer: Color is good. It is bland, but it is traditional, just like how a school is.

Did you find the info that we asked you to find?

Answer: Yes.

8. Was there enough information?

Answer: Yes.

9. What do you recommend changing?

Answer: Stop the logo from spinning and reorganize the links.

10. Any other topics worth mentioning concerning the navigation of the website?

Answer: Too much clicking needed to access the main menu.

Other comments:

She likes school sites that has a picture of the school at the homepage. But only if the picture is a good picture with sunsets, trees and other pretty images. It shows what kind of place the school is and how it looks. She also thinks that using the website is more convenient then using a booklet. She thinks that website information is usually more complete and more updated then the booklets. Idy thinks that Caritas has a website staff section that specializes in the updating of the website. The other reason a booklet is less convenient is because she would have to go out and get the booklet at one of the Caritas's sites. "The website can be accessed in my pajamas" (Idy). She thinks that University of Hong Kong is appealing. She likes the pictures of the school at the Home page. The colors are simple and traditional, just like what she likes. She recommends having online registration option on the website. Idy also suggested a student life section that students can tell new comers what to expect and the stuff that the brochure didn't tell them about. The reason is because she had some problems with scheduling arise when she learned the full details of her class after the first day. She didn't know that some times, there are classes at Saturday and the hours of some class are very spread out with a lot of breaking time.

B-10 Interview Transcript of Daisy Wong (Student)

Background Questions

1. What is your current employment status? **Answer:** Student studying Accounting.

2. May you give us a brief description of your education background?

Answer: Right now in Form 5 (Grade 11).

3. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: 4

4. How familiar are you with computer usage? (Same scale as above)

Answer: 3

5. Have you used the Internet before?

Answer: Yes

6. If yes, how often and what is the purpose for usage?

Answer: Surfing, e-mail. Weekly-7 hours.

7. Have you been to the Caritas website recently?

Answer: No

8. If yes, why did you visit it?

Answer: Not applicable

User Interface Test

1. Look for the Purpose of Caritas. **Result:** Just one click from homepage.

2. Look for the listing of Full-time Programs **Result:** Went to it directly from Home page.

3. Now look for Elementary English (I) in Part-time Programs

Result: This took some time. She went to every link the Home page had to offer. She went into the Full-time section and tried many times to find Part-time Eng. Descriptions. Once she skip the History section and found the Main Menu page, she found the Part-time courses.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School **Result:** She went to the General Section first, then back to the Main Menu and then went directly to the Kowloon Night School contact information.
- 5. Look for Overseas Collaboration school links.

Result: She had to search it all the way to the Home page before going back to the Main Menu. She found the Overseas Collaboration after that.

6. Look for a link to e-mail a comment.

Result: Found it with no difficulty.

7. Go back to the Home Page.

Result: Went directly to it, but by using Back button.

8. Look for quiz of the Life Long Learning Celebration.

Result: Found it easily.

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer: Simple

2. What do you expect this website to do?

Answer: Contain information about Caritas.

3. Did the Web page give you problems while you are searching?

Answer: It was disorganized. Hard to search.

4. What is the main problem with the Web page?

Answer: The organization of links is bad. Like for example there was no Part-time link on the Home page.

5. Did you want to skip the history section?

Answer: Yes

6. Was it easy to navigate?

Answer: It was difficult

7. Anything you like about the current setup of the Web page?

Answer: Nothing stands out.

8. Did you find the info you were looking for?

Answer: Yes, but took some time.

9. Was there enough information?

Answer: There was sufficient information.

10. What do you recommend changing?

Answer: Too many of Caritas' logos.

11. Any other topics worth mentioning concerning the navigation of the website?

Answer: I did skip the History section, but not because it was annoying. It was just that I didn't

need the information provided there.

Other comments:

Nothing much. Just that the organization of the links is very bad. It hindered her navigation.

B-11 Interview Transcript of Andy (Student)

Background Questions

1. What is your current employment status?

Answer: Student of Caritas, Post Secondary

2. May you give us a brief description of your education background.

Answer: Hotel Business Studies.

3. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: 6

4. How familiar are you with computer usage? (Same scale as above)

Answer: 7

5. Have you used the Internet before?

Answer: Yes

6. If yes, how often and what is the purpose for usage?

Answer: 35 hours a week, Web page making, making message boards, e-mail, chat, surf around other sites, visit friends' sites.

7. Have you been to the Caritas website recently?

Answer: Yes

8. If yes, why did you visit it?

Answer: To do research on a course.

User Interface Test

1. Look for the Purpose of Caritas.

Result: Just one click from homepage.

2. Look for the listing of Full-time Programs

Result: Went directly to that page. Just one click.

3. Now look for Elementary English (I) in Part-time Programs

Result: Took a while, he went back and forth from the Full-time courses and Home page. Then click all the links on the Home page. He didn't notice that after the History section was the Main Menu for the course information. After the Main Menu is reached, he found the Part-time section easily.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School **Result:** Had a little problem here also, he clicked all over the place without an idea where to go, he went all the way back to the history section. After returning to the Main Menu, he saw the link to the Colleges and other Centers.
- 5. Look for Overseas Collaboration school links.

Result: Went to General Information page, then back out to the Main Menu. He then went into the page where he found the Part-time section. Then found the link to Overseas Collaboration.

6. Look for a link to e-mail a comment.

Result: Found it easily.

7. Go back to the Home Page.

Result: One click to get back to home page.

8. Look for quiz.

Result: It took a bit of time but he was on the right section, the Activities Page.

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer: "It is ok".

2. What do you expect this website to do?

Answer: To give details of courses offered. Contact info.

3. Did the Web page give you problems while you are searching?

Answer: Not organized well.

4. What is the main problem with the Web page?

Answer: The information is not organized so stuff is hard to find.

5. Did you want to skip the history section?

Answer: Yes, there was no reason to read about it even if not doing this interface test.

6. Was it easy to navigate?

Answer: No, it took awhile to search.

7. Anything you like about the current setup of the Web page?

Answer: It is average, nothing I like especially.

Did you find the info that we asked you to find?

Answer: Yes.

8. Was there enough information?

Answer: Yes.

9. What do you recommend changing?

Answer: More colorful and organize the links in an orderly fashion to make searching more

efficient.

10. Any other topics worth mentioning concerning the navigation of the website?

Answer: The most visited page is the Home page, it should contain better links.

Other comments:

Andy makes his own web pages for fun in his spare time with other friends. He knows a little about the design of web page. He points out that there is a need to fix the Home page to give it more links to start the searching from there. He thinks that it was irritating to return to the Home page only to find out that there was no links there that would help him search or navigate. The main problem he can see for the CAHE website is the organization of the links. Color and graphics wise, he didn't mention much needed change about it. We think that he knows that school sites can't be as colorful as commercial sites.

B-12 Interview Transcript of Jonathan (Student)

Background Questions

1. What is your current employment status?

Answer: Student of Caritas Form 6 (equiv. Grade 12)

2. May you give us a brief description of your education background.

Answer: Studying in Commercial.

3. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: 8

4. How familiar are you with computer usage (above scale)?

Answer: 7

5. Have you used the Internet before?

Answer: Yes

6. If yes, how often and what is the purpose for usage?

Answer: 20 hours per week. Mostly for research, e-mail, and read the news.

7. Have you been to the Caritas website recently?

Answer: No

8. If yes, why did you visit it?

Answer: Not applicable

User Interface Test

1. Look for the Purpose of Caritas.

Result: Just one click from homepage.

2. Look for the listing of Full-time Programs

Result: Just one click from Home page.

3. Now look for Elementary English (I) in Part-time Programs

Result: This task took him a bit of time. He went back and forth between Full-time Programs and Spring Board on the Home page to find the section containing Part-time information. He didn't bother to scroll down to the end of the History page to see the other links. He finally found the link to the Main Page after going to all the other available links previous. After finding the Main Page, he found the Part-time easily.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School **Result:** No problem, read the contents of the Main Page links.
- 5. Look for Overseas Collaboration school links.

Result: Did a little of searching in the General Information page, but then went back to Program Descriptions and found the Overseas Collaboration school links.

6. Look for a link to e-mail a comment.

Result: Remembered the link at the Main Page.

7. Go back to the Home Page.

Result: Use the link to directly go back.

8. Look for quiz of the Life Long Learning Celebration.

Result: One of the links at the Home page was labeled "Celebration of Life Long Learning" so it was a good lead to it. And Jonathan noticed it so he found this task easily.

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer: It is ok.

2. What do you expect this website to do?

Answer: Provide information about Caritas course programs.

3. Did the Web page give you problems while you are searching?

Answer: Links were organized bad.

4. What is the main problem with the Web page?

Answer: Better links on the first page (Home page).

5. Did you want to skip the history section?

Answer: Yes, only read it if one is looking for it.

6. Was it easy to navigate?

Answer: It was average.

7. Anything you like about the current setup of the Web page?

Answer: The Main Page was useful in searching.

8. Did you find the info you were looking for?

Answer: Yes.

9. Was there enough information?

Answer: There was sufficient information, but it isn't update enough.

10. What do you recommend changing?

Answer: Move the Main Page to the Home Page.

11. Any other topics worth mentioning concerning the navigation of the website?

Answer: Don't make the site too colorful since it is a informative site.

Other comments:

A very useful suggestion is to make the Main Page the Home Page so the searching could be done much quicker. Jonathan notices that once the Main Page is found, the searching was conducted much quicker. Color usage was not that important he said, it only is important to commercial sites. He also prefers to use the Web to do research compared to a booklet. He thinks that the Web page will be more useful because he is familiar with the structure and navigation of Web pages so clicking around is faster than turning through many pages in a book. We then showed him other University websites. He liked Hong Kong University (www.hku.hk) the most because it contained a lot of information and was organized well. The information on HKU was easy to search because it uses frames that give links to different sections of the website. The sections are the major parts of the website so navigation is made easier.

B-13 Interview Transcript of Benny (Student)

Background Questions

1. What is your current employment status?

Answer: Student of Caritas Form 7 and up (equiv. 3rd year in college).

2. May you give us a brief description of your education background.

Answer: Studying in Computer Science

3. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: 6-7

4. How familiar are you with computer usage (above scale)?

Answer: 9

5. Have you used the Internet before?

Answer: Yes

6. If yes, how often and what is the purpose for usage?

Answer: 25 hours per week. Mostly for work, he occasionally make website for companies.

7. Have you been to the Caritas website recently?

Answer: Yes

8. If yes, why did you visit it?

Answer: To look for some course info, but couldn't find it quickly so gave up.

User Interface Test

1. Look for the Purpose of Caritas.

Result: Just one click from homepage.

2. Look for the listing of Full-time Programs

Result: Just one click from Home page.

3. Now look for Elementary English (I) in Part-time Programs

Result: Even though he has extensive knowledge in computers and Web, this task still took him as long as other interviewees. He first went back to the Full-time page hoping to find a link to the Part-time. He then looked for it in every other page until he came to the end of the History Page. He found the Main Menu page so it was straight forward after that.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School Result: Went to the Schools and Centers link labeled in the Main Menu page.
- 5. Look for Overseas Collaboration school links.

Result: He remembered that it was on the same page as the Part-time programs link page.

6. Look for a link to e-mail a comment.

Result: Wasn't sure, but when he went out to the Main Menu, he saw the link labeled "Comment".

7. Go back to the Home Page.

Result: Used the link provided on the Main Menu page.

8. Look for quiz of the Life Long Learning Celebration.

Result: Went to the Link labeled "Celebration to Life Long Learning". It was a very clear objective.

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer: It is ok.

2. What do you expect this website to do?

Answer: Provide information about Caritas course programs.

3. Did the Web page give you problems while you are searching?

Answer: Yes, the Main Menu should have been placed in the beginning or use frames.

4. What is the main problem with the Web page?

Answer: Better links and contents of the site needs to be updated.

5. Did you want to skip the history section?

Answer: Yes.

6. Was it easy to navigate?

Answer: It had only one obstacle, but could be solved if the Main Menu is placed at the beginning.

7. Anything you like about the current setup of the Web page?

Answer: The Main Menu Page.

8. Did you find the info you were looking for?

Answer: Yes, once the Main Menu page was found.

9. Was there enough information?

Answer: There should be enough, can't tell because I don't know about the current information.

10. What do you recommend changing?

Answer: Use frames to make the navigation easier.

11. Any other topics worth mentioning concerning the navigation of the website?

Answer: Organization of links and content is important to information sites like Caritas.

Other comments:

Even though he had superior computer and Web knowledge, the interface test resulted with just about the same as the other interviewees. He was still a little stuck when trying to find the Part-time this means that the placement of the link for Part-time is not put right. Benny emphasized the use of frames to help speed up the search and navigation of the site. When asked to compare the efficiency of website to a booklet for researching, he picked booklets. He said the format and organization of books are set and well known. Most people know how a

B-14 Interview Transcript of Mrs. Chan (Student)

Background Questions

1. What is your current employment status?

Answer: Owner of store that disturbs furniture.

2. May you give us a brief description of your education background.

Answer: Taiwan Form 6 (equiv. Grade 12). English of Middle 3 (equiv. Grade 9),

Flower arrangement (4 years).

3. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: 2

4. How familiar are you with computer usage (above scale)?

Answer: 4

5. Have you used the Internet before?

Answer: No

6. If yes, how often and what is the purpose for usage?

Answer: Not applicable

7. Have you been to the Caritas website recently?

Answer: Not applicable

8. If yes, why did you visit it?

Answer: Not applicable

User Interface Test

1. Look for the Purpose of Caritas.

Result: Just one click from homepage.

2. Look for the listing of Full-time Programs

Result: Went to the History page first, then she got back to the home page to find the link to the Full-time. She then had no problem.

3. Now look for Elementary English (I) in Part-time Programs

Result: She found it relatively fast, because we had to give her hints. She went to the Activity page, then Home, and then went to the History page. She went to the end and then found the link to Main Menu. That was a direct path to it after that.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Nght School Result: She found it with no problem since she notice the School and Centers Section Link.
- 5. Look for Overseas Collaboration school links.

Result: She found that with no difficulties.

6. Look for a link to e-mail a comment.

Result: She went back to the Main Menu and found the contact link.

7. Go back to the Home Page.

Result: Use the link to directly go back.

8. Look for quiz of the Life Long Learning Celebration.

Result: She found that quickly because the Link was labeled "Celebration of Life Long Learning", which was found at the Home page.

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer: Need to be more attractive.

2. What do you expect this website to do?

Answer: Provide information about Caritas course programs.

3. Did the Web page give you problems while you are searching?

Answer: Needed a little guessing.

4. What is the main problem with the Web page?

Answer: Make more appealing and use better labels.

5. Did you want to skip the history section?

Answer: Yes, only read it if one is looking for it.

6. Was it easy to navigate?

Answer: It was average.

7. Anything you like about the current setup of the Web page?

Answer: Nothing stands out.

8. Did you find the info you were looking for?

Answer: Yes, but with some hints.

9. Was there enough information?

Answer: There was sufficient information, but I wouldn't know if it was correct or not.

10. What do you recommend changing?

Answer: Home page more attractive.

11. Any other topics worth mentioning concerning the navigation of the website?

Answer: Have to take the age of the users into heavy consideration when designing. I like the Mei Sum Bakery store and their designs. They use a lot of red, which is favorable color at our age.

Other comments:

Mrs. Chan is very much into the design and other artistic topics. She is only willing to spend effort on things that she likes. This is a very important point when deciding the access method of some content. Have to take into consideration what is the information most accessed. This should be the Program description, but that is still only an assumption. Need to go back and analyze the previous interviews to make sure. She said that the home page needs to be "bigger and sharper", in other words more appealing, just like what most other interviewees said. Regarding the History page she said that it shouldn't be forced, efficiency is still the most important in navigating, so putting the History of Caritas there forcefully reduces the efficiency.

B-15 Interview Transcript of Cathy (Student)

Background Questions

1. What is your current employment status?

Answer: Student of Caritas, Form 6 (Form 6)

2. May you give us a brief description of your education background.

Answer: Hotel Management (10 day course)

3. Do you know English? (1-10 1:can't read 10:Able to read all)

Answer: 4

4. How familiar are you with computer usage? (Same scale as above)

Answer: 5

5. Have you used the Internet before?

Answer: Yes

6. If yes, how often and what is the purpose for usage?

Answer: 4 hours, newspaper, magazines.

7. Have you been to the Caritas website recently?

Answer: No

8. If yes, why did you visit it?

Answer: Not applicable.

User Interface Test

1. Look for the Purpose of Caritas.

Result: Click other links before clicking the Purpose link.

2. Look for the listing of Full-time Programs

Result: Went directly to that page.

3. Now look for Elementary English (I) in Part-time Programs

Result: It took a very long time for her to find it. She had to have us give her hints before finding it. She was very nervous.

- 4. Look for the address of Caritas Institute For Further & Adult Education Kowloon Night School Result:
- 5. Look for Overseas Collaboration school links.

Result:

6. Look for a link to e-mail a comment.

Result:

7. Go back to the Home Page.

Result:

8. Look for quiz.

Result:

Caritas Website (After Usage)

1. Is the graphic appealing?

Answer:

2. What do you expect this website to do?

Answer:

3. Did the Web page give you problems while you are searching?

Answer:

4. What is the main problem with the Web page?

Answer:

5. Did you want to skip the history section?

Answer:

6. Was it easy to navigate?

Answer:

7. Anything you like about the current setup of the Web page?

Answer:

Did you find the info that we asked you to find?

Answer: No

8. Was there enough information?

Answer:

9. What do you recommend changing?

Answer:

10. Any other topics worth mentioning concerning the navigation of the website?

Answer:

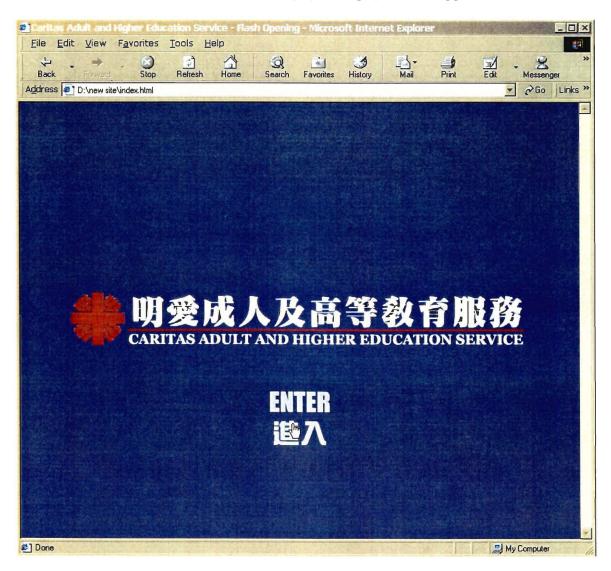
Other comments:

She was very nervous with the interview, that is why most of the questions or tasks weren't complete. Before we have asked her many times if she was comfortable with the interview and she said yes every time. She was brought here by Catherine as a candidate for our interview, she is in a prework training program so Catherine believe that she will add more diversity to our interface research. Unfortunately she got very from the very beginning so as we ask our questions she got more anxious. At the interface test where she had to find the Part-time Elementary English I, she couldn't find it and gave up. She wanted to leave after that so we let her go, but kept a record of her interview.

Appendix C

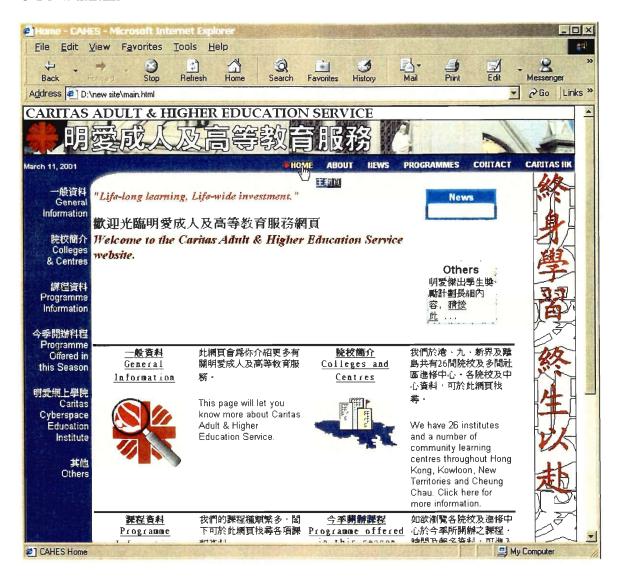
Screenshots - CAHES Web Site

The *new* CAHES website has a total of 87 pages. Since most of the pages have similar structure or interface, it is not necessary to put all 87 pages in the appendix.



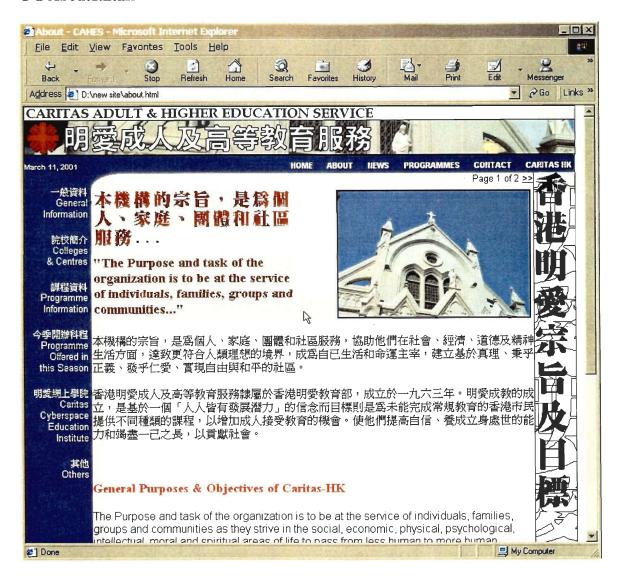
This is the opening page of the New CAHES website made by FlashTM. Users can skip the opening whenever they want by clicking the "Skip Intro" button on the lower right corner (not seen.) That button will disappear when the flash opening is finished and the Enter button appear. User can enter the site by clicking the Enter button.

C-1 Main.html



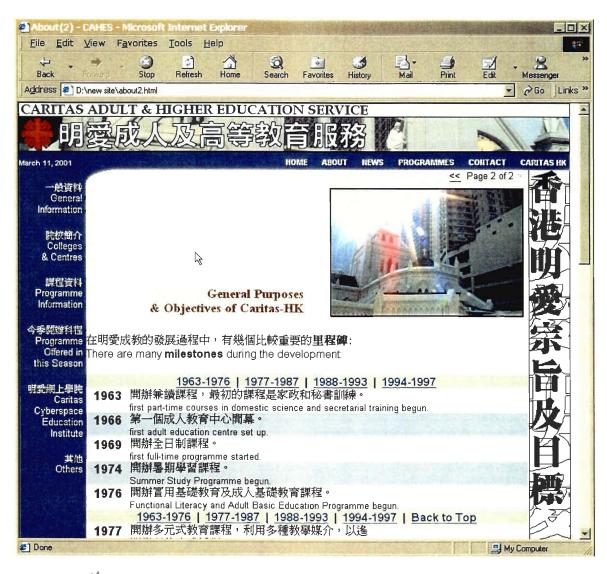
This is the main page of the New CAHES site. There is a little pop-up description provided when the cursor points to the link. The content in the main page is to give users the most important headings of the News and Others. It also gives a brief summary of each of the 4 main menus.

C-2 About1.html



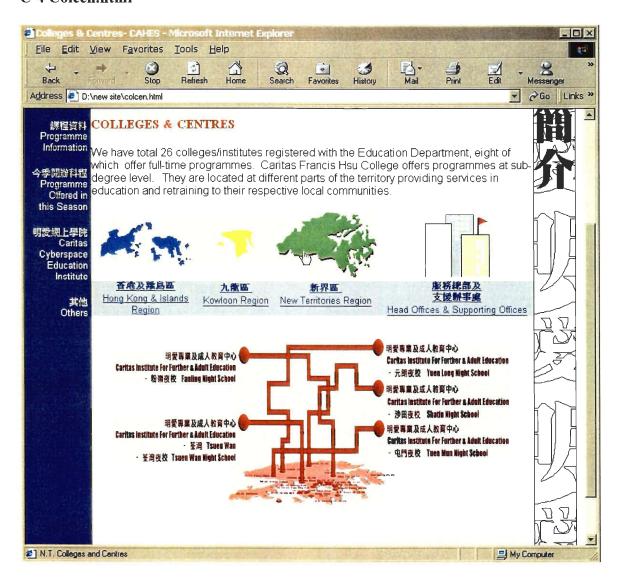
This is the history part of the CAHES website. It has a lot of contents that it has 2 pages.

C-3 about2.html



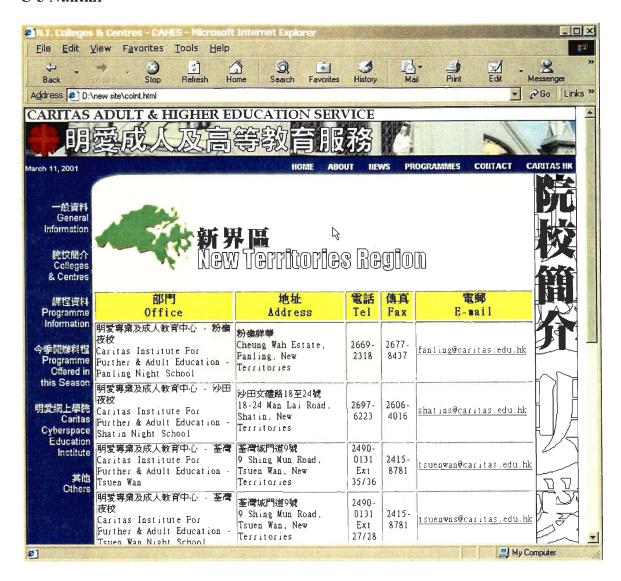
This is the 2^{nd} page of the history section. The years of accomplishment are divided into 4 parts and bookmarked.

C-4 Colcen.html



This is the first page of College and Center section. Appropriate maps are provided depending which link the cursor points at.

C-5 Nt.html



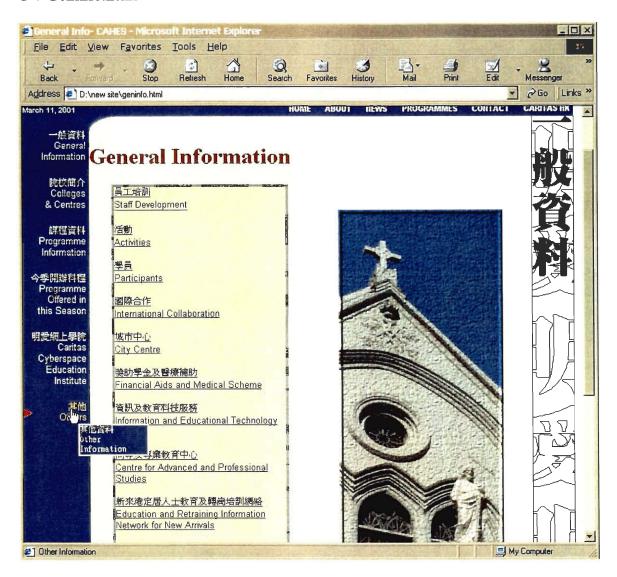
This is the New Territories Region of College and Center page. It uses a table to provide names, address, phone number, fax number, and email address of each college.

C-6 Contact.html



This is the Contact page of the CAHES website. The page provides the CAHES office address, phone number, and email address for users. A pop-up description is provided when the cursor points at each link on the left. Another menu and last updated time are provided at the bottom of the page, as every other page does in the website.

C-7 Geninfo.html



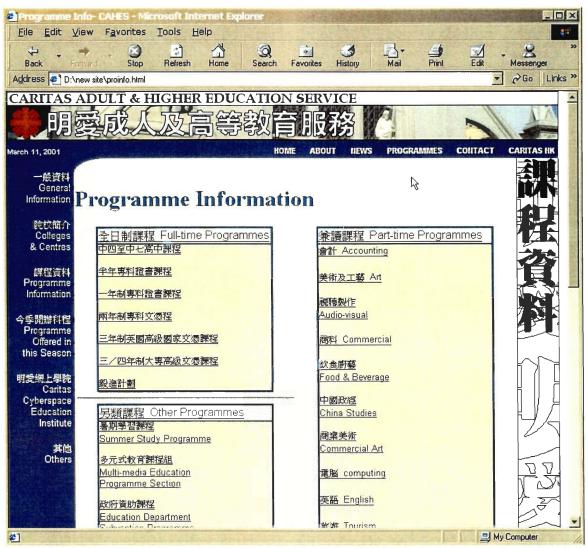
This is the first page of the General Information section. All links are provided for users to choose from.

C-8 Act.html



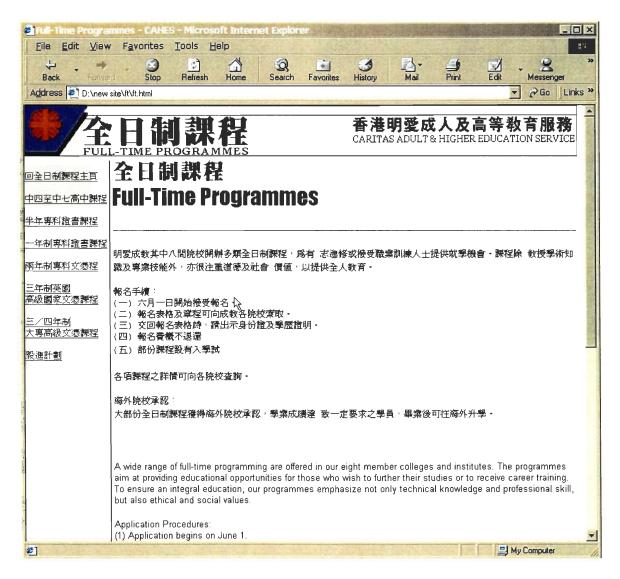
This is the Activities page from the General Information Section. This interface is stretchable in width and its minimum width is 780. All links in the General Information are listed on the left.

C-9 Proinfo.html



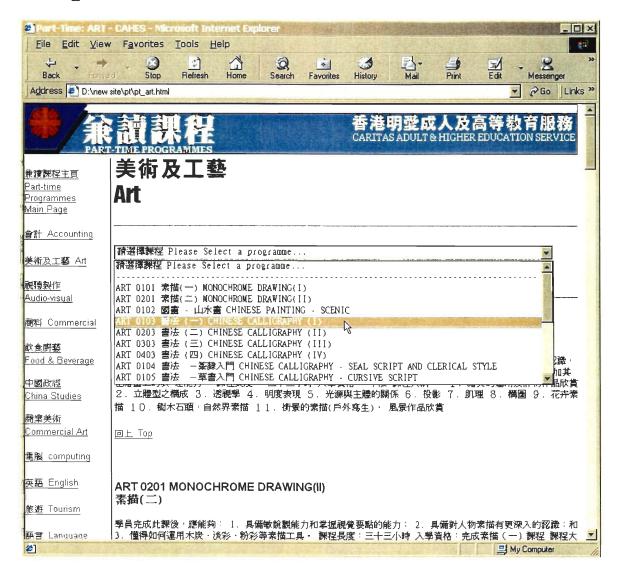
This is the first page of the Program Information Section. All the choices are listed at the first page to prevent users from finding a page by looking into pages and pages.

C-10 Ft.html



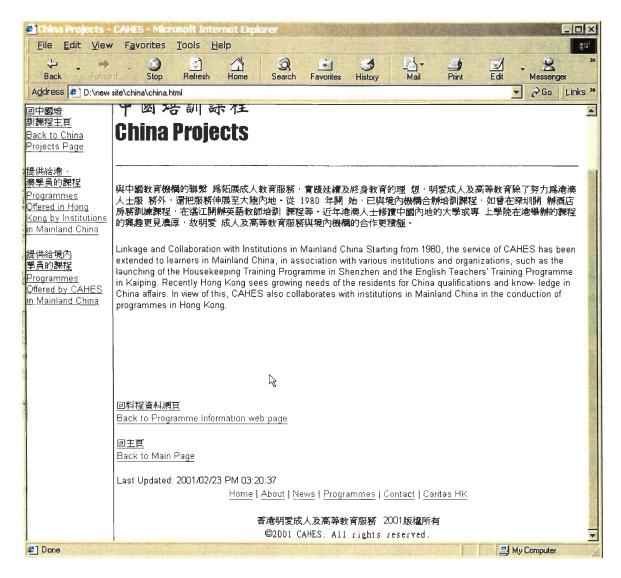
This is the first page of the Full-Time Programmes. All pages in the Program Information use this interface.

C-11 Pt art.html



This is the Art Program in the Part-Time Section. In general, all programmes with more than one courses will have a pull-down menus for users to choose from. When clicked, users will be taken to the appropriated bookmarked area.

C-12 China.html



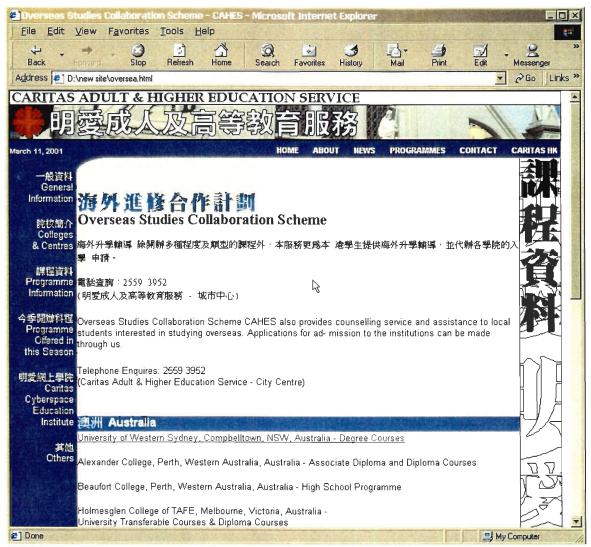
This is the bottom of the China Projects. As seen, last updated time and the bottom menu are also here.

C-13 Multi.html



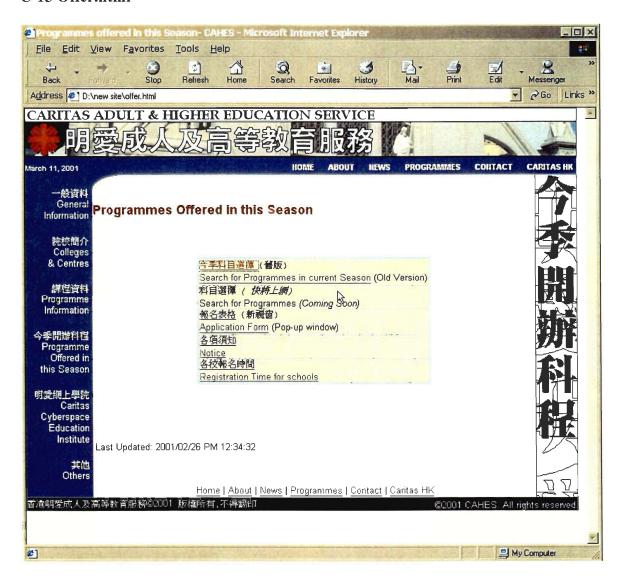
This is the Multi-media Education Program Section of the Other Prgorammes section.

C-14 Oversea.html



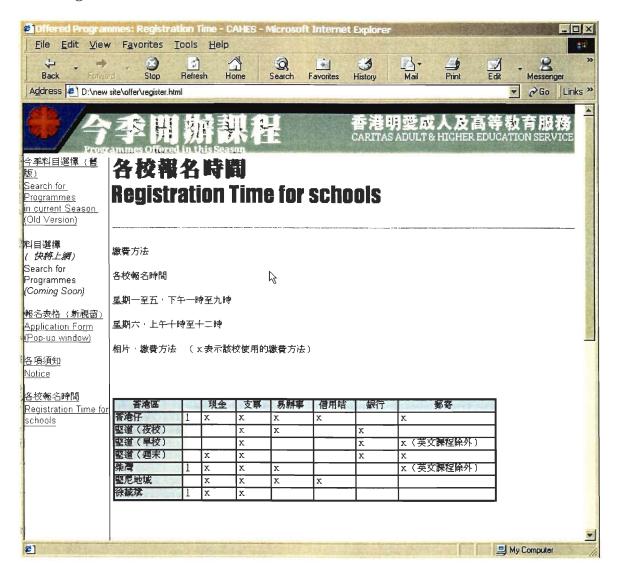
Overseas Studies Collaboration Scheme in the Program Information is divided and bookmarked by countries, which would be easy for users to choose from.

C-15 Offer.html



This is the first page of the Programmes offered in this Season.

C-16 Register.html



Since the Programmes offered in this Season are also categorized as a program, the interface will be the same.

Appendix D Weekly Progress Reports

D-1 Progress Report I

January 18, 2001 Project Number: 27131 IQP JFZ-HKP2 HK IQP CAHES Website Project Michael Cen Steve Law

We arrived Caritas on the 8th at 9:30am for project briefing. We found out that the real project is not that different from our very first assumption: to modify/renovate the Caritas Adult and Higher Education Service (CAHES.) The only thing that is new to us is that we will need to somehow corporate with the Database Team. Since the Staff suggested that we do not have to come everyday because of the expensive traveling fee (more than \$30HK around trip,) we proposed that we will be coming to Caritas every Monday, Tuesday, and Thursday. But after the first week, we have been showing up everyday since we figured it is easy for two of us to work together in the same room. They have provided us one desktop computer to use for the website design, but it has Chinese Windows which might give us some problem interfacing with it. Caritas does have access to an English OS but they recommend using a Chinese OS since the Web page is still Chinese base and this OS can still install English programs. Even though we don't live in the same area, we still work together after work through the use of dial up when the time needs it.

Although we have updated the Methodology of the Literature Review already, we think it is better for us to briefly talk about what we need to do for the project. The whole website is mainly divided into 4 parts: General Information, Program Information, Colleges and Centers, and Programs offered in this Season. The general idea is to modify or even rebuild the CAHES website from scratch (if we have time). But the main challenge for this project is to build a search engine for the courses offered by Caritas. On that part of the website we will need to work with the Database Team. They will be providing us a smaller version of their Database in an Excel file, and our job is to make it searchable on the website.

Caritas have given us several powerful programs such as Macromedia FlashTM, Fireworks, and Dreamweaver to use. Unfortunately, we are not really familiar with those applications and we need to start learning from the beginning. For the database part, one of the possible ways to handle it is to use Microsoft FrontPage but Caritas have not gotten us the software yet. We also requested for all the source codes of the CAHES website since the first day, but we have not received it yet since they recently moved the server to another place.

The Literature Review that we've done back at WPI is almost all we need for this project. After reviewing what is expected of us, we can use Dreamweaver and Microsoft FrontPage to accomplish the making of the website. They will be the 2 main website design applications for this project. We planned to add to the literature review background information regarding how we can use FrontPage 2000 to handle Excel data files. So updating course info on the Web page, all Caritas have to do is update the Excel file, which they have to do anyway. FrontPage protocols will update the Web page automatically. But since we have just gotten FrontPage on Friday, we cannot give a detail step by step of this process. We hope to update the lit review with this new information before the next progress report turn in.

We interviewed Bosco Chang, one of the liaisons of our team, also the Organizer of the Visual/Audio Technical Section in Caritas to learn more about the Information Technology of Caritas and the history of the current CAHES website. We also interviewed Catherine Li for the general information about CAHES and how the website would affect CAHES. Other than that we have been doing research on other ways to do database on the web and observe other educational websites in HK, such as Hong Kong University, Polytechnic University of Hong Kong, and etc.

On the 17th, Prof. Davis and Prof. Vaz met up with us to see our presentations. They did their "JOB" during the presentation and criticized our methodology part of the project because it was inefficient. Good thing is that they gave us a lot of good ideas and those ideas really put us back to the right track. We first proposed for a survey for all Caritas students and staff, without thinking of how many students exactly will be taking the survey and etc. Then Prof. Vaz and Prof. Davis suggested that we can do 5 or 6 qualitative interviews instead of interviews on those who have little or no knowledge about Caritas or Internet, giving them experiment on how they operate the website. Although it is sort of "hurt" when being criticized, we are glad that they pointed the problems out in the 2nd week and Caritas is 100% supportive by willing to get people for us to interview or fill out the survey.

D-2 Progress Report II for website Team

This is the progress report for the week of Jan. 20 to Jan. 26. We have finally obtained a copy of the HTML code for the Caritas website. Mr. Bosco had been able to give us the code before the vacation week of Chinese New Year. This vacation has put a hold to our resource availability but we still continue our work and research to the best of our given resources. Steve has been mainly familiarizing himself with DreamweaverTM, FlashTM, and other multimedia additions for website. Mike has been working on the research of the search engine for the database. We have done some research and it seems the use of FrontPage will increase the speed of creating the search engine. The Database team will provide us with an Excel file that is the result of their program, since Excel and FrontPage are both made by Microsoft; their files are compatible for usage with one another. Further details should have been included with the Methodology passed in from last week. As we work on how to make the website, we have also been working ways to design the website to the needs of the user. We have taken the advice of Prof. Vas to abandon the use of a survey to gather information; instead we will use standardized interviews to gather the needed information. We are writing a list of the possible questions to use for the transcript. As for the types of people, we will be thinking of 5 different categories. The first is staff, so we can check for the content accuracy and need. Next category is recent enrolled students so we can find out what he or she looks for in course info. Other category is current students, to decide the usefulness of the information provided. Next are people that has never used or not very familiar with the navigation of Web pages, this will give us an assessment of how intuitive the website is. The last category is users that have visited the Web page before, this can tell us if the website improved or is worse. As for the candidates for the categories, Mrs. Catherine Li has generously agreed to help us find them. She has a vast knowledge of the people inside the Caritas organization; this group of people should have all the correct candidates we need. We plan to interview around 10 to 15 candidates.

During this vacation we have been working at our homes with our laptops. We have remained in contact through phone and AOL IM. As for the revised Methodology due this time, we have already sent that along with the revised Literature Review last week. We don't make any new changes to the old Methodology so it will be enough. This is it for this week, we'll be reporting in with our progress next week.

D-3 Progress Report III for website Team

For the week of Jan. 27 to Feb. 2 we have advance in our HK IQP project. As our methodology says, we are working on the interviews and making the skeleton of the website at the same time. Catherine has provided us with the candidates for our user research. For now, she is able to find 10 candidates that we can interview with our standardized questionnaire. Out of the 10 candidates, 7 are students that are at the school downstairs. The remaining 3 will be staff members with varying knowledge and usage of computers and the Internet. From the 7 students, they will vary from their majors. Some will be from computer science courses while others will be from accounting, mathematics, etc. Hopefully the students varying in their majors will also vary in the knowledge and usage of the Internet so we can test the interface of the current CAHE website. We have already interviewed one of the Staff members regarding the interface of the website. His name is Wan Kwok Fai. He is a clerk that is in charge of the registration for Night Classes. He has used the current website to find contact information so he will know about the interface. I'll send you the results of the interview along with this report.

The other progress is that we have started making the website's basic parts. We have used a common design for the Home page for now. If the data from the interviews prove different then we can change it easily since we will be more familiar with the HTML code after making the website for these weeks. For now, the Home page has a menu on the left side and animation that indicates that it is a link whenever the mouse cursor is over it. We have also made the Home page able to appear normal even if it is stretched out of the usual 800×600 screen size. The Home page has a white space in the middle; it will be reserved for updated news and what's new.

Here is a screen shot of what is done for the Home page:



D-4 Progress Report IV for website Team

This report is for the week of Feb. 9, 2000. We're continuing on our interview this week. This week we have interviewed 1 staff, 4 full-time students and 3 part-time students. Most of them gave us "way more than expected" information and they are very fruitful. But there was one unexpected situation when interviewing one of the part-time students. She was invited by one of the Caritas staff when she had a 15-minute break time between classes. Since our interview usually takes 30 – 45 minutes, and she would be missing some of the class time. We asked her 3 times if it is ok with her, we even asked her teacher (he just happened to walk by!!) and both of them were OK with it. Before we even started our interview, she already looked intimidated by the environment or even by us. So we decided to do a casual interview. But unfortunately she did not do the whole interview and left in the middle website walk-through. We somehow tried to ask her to finish the whole interview but she refused to do so.

Mike have been organizing the data from the interviews and writing the transcripts for each interview at the same time. For the website, a lot of changes have been made since last week. I have come up with couple more theme designs during the week. I figured if I don't pick one soon I'll come up with more ideas and nothing will be done. So I asked our liaison Bosco to pick the most appropriate theme for us. After he picked one of them, the progress of building static html sites has been very fast. 6 sites have been finished after that. For the search engine part, we have found out that the server does not support ASP: the language we have been researching. One of the staff who is now maintaining the CAHES website will work with us on next Monday.

Every one of us, including the other teams, has been staying later and later everyday. Everyone is trying to get things done. That would be all for the weekly progress report. This is Steve Law from the Web Site Team; Thank you, and Good Night ©