

**UTP Student Satisfaction Index Survey 2008**

by

**Siti Rokayah Binti Kassim**

**Dissertation submitted in partial fulfillment of the requirements for the**

**Bachelor of Technology (Hons)**

**(Business Information System)**

**July 2008**

**Universiti Teknologi PETRONAS**

**Bandar Seri Iskandar**

**31750 Tronoh**

**Perak Darul Ridzuan**

**CERTIFICATION OF APPROVAL**

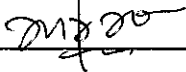
**UTP Student Satisfaction Index Survey 2008**

by

**Siti Rokayah Binti Kassim**

A project dissertation submitted to the  
Business Information System Programme  
Universiti Teknologi PETRONAS  
in partial fulfilment of the requirement for the  
BACHELOR OF TECHNOLOGY (Hons)  
(BUSINESS INFORMATION SYSTEM)

Approved by,




(Ms Penny Goh Kim Nee)

UNIVERSITI TEKNOLOGI PETRONAS  
TRONOH, PERAK

July 2008

## **CERTIFICATION OF ORIGINALITY**

This is to certify that I am responsible for the work submitted in this project, that the original work is on my own except as specified in the references and acknowledgements and that the original work contained herein have not been undertaken or done by unspecified sources or persons



---

**(SITI ROKAYAH BINTI KASSIM)**

## **ABSTRACT**

The purpose of this project is to develop an online survey that can be used to measure the services provided by specified departments in Universiti Teknologi PETRONAS (UTP). This is an intranet based system that only can be accessed within the campus area. All UTP students are required to participate in this UTP Students Satisfaction Index Survey 2008 because they are the one who experience the services that provide by these departments. After they choose the services that they had experienced, they are required to rate the services provided by the department that they had chosen. Beside that this paper also discusses on reasons why using online approach to conduct a UTP Member 2008 Index Survey is more effective than paper and email surveys. This system uses PHP as a programming language and Fusion Chart Software to represent the data that had been collected through the survey.

## **ACKNOWLEDGEMENTS**

Firstly and foremost, I would like to thank Universiti Teknologi Petronas for giving me an opportunity to accomplish a Final Year Project (FYP) paper. My greatest thank you especially to my FYP supervisor, Ms. Penny Goh Kim Nee for supervising me during the Final Year Project for the period of two semesters and her guidance and knowledge shared the system development. She was very kind, supportive and highly motivated supervisor who monitored my progress. Some useful tips and advice were given to me in facing the challenges of completing the project.

I would like to give my fullest gratitude to the FYP committee for successfully conduct and able to manage the FYP session as well as approving my project title proposal. With the guidelines provided, it really did help me on how to prepare the FYP paper as well as entertaining all queries promptly and for making sure that student does not encounter any problems during that period.

I really appreciate and thankful to all the people involved directly or indirectly during my FYP session. Last but not least, a big thanks to my family and friends for being very supportive and understanding all along.

## **TABLE OF CONTENTS**

<b>CERTIFICATION.....</b>	<b>i</b>
<b>ABSTRACT.....</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>iv</b>
<b>CHAPTER 1 : INTRODUCTION.....</b>	<b>1</b>
1.1 Problem Statement.....	1
1.2 Objectives.....	1
1.3 Scope of Study.....	2
1.3.1 Study on Online Survey.....	2
1.3.2 Study on Department Flow of Work.....	2
1.3.3 Study on UTP Student’s Behavior.....	3
1.3.4 The Scope of the Online Survey.....	3
	4
<b>CHAPTER 2 : LITERATURE REVIEW.....</b>	<b>5</b>
2.1 Online Survey and Paper Based Survey.....	5
2.1.1 Advantages of Online Survey over Paper Based Survey.....	5
2.1.2 Disadvantaged of Online Survey Over Paper Based Survey....	5
2.2 Online Survey and Email Survey.....	6
2.3 User Centered Design.....	7
	8
<b>CHAPTER 3 : METHODOLOGY.....</b>	<b>10</b>
3.1 Methodology .....	10
3.2 Tools Required.....	10
3.3 Project Timeline.....	13
	15
<b>CHAPTER 4 : RESULTS AND DISCUSSION.....</b>	<b>16</b>
4.1 Introduction.....	16
4.2 Project Requirement.....	16
4.3 Information Gathering.....	16
4.3.1 Interview.....	17

4.3.2 Questionnaires.....	17
4.4 System Use Case Diagram.....	22
4.5 System Flowchart.....	24
4.6 Interface and Layout Design.....	25
4.7 Question Created and Review.....	27
4.8 Development of Database.....	30
4.9 Development of Online Survey Question Page.....	31
4.10 Development of Online Survey Result Page.....	35
	36
<b>CHAPTER 5 : RECOMMENDATION AND SOLUTION.....</b>	<b>37</b>
<b>REFERENCES.....</b>	<b>38</b>
APPENDIX A: Gantt Chart for the Project Timeline.....	40
APPENDIX B: Online Survey Questionnaires.....	42
APPENDIX C: Programming Code for the Result Page.....	52
APPENDIX D: Interview Question for Department.....	54
APPENDIX E: Interview Question for STUDENT REPRESENTATIVE COUNCIL.....	55
APPENDIX F: Questionnaires for Students.....	56
APPENDIX G: Questionnaires for Student Results.....	58

## **LIST OF FIGURES**

Figure 1: Methodology Approach.....	10
Figure 2: Questionnaires Result.....	22
Figure 3: System Use Case Diagram.....	24
Figure 4: System Flowchart.....	25
Figure 5: Example of Interface Design.....	28
Figure 6: Question Page Sample.....	35
Figure 7: Result Page Sample.....	36

## **LIST OF TABLES**

Table 1: Survey Module Division.....	4
Table 2: Project Timeline.....	15
Table 3: Table Structure for Tables in the Database.....	31



# **CHAPTER 1**

## **INTRODUCTION**

### **1.0 INTRODUCTION**

#### **1.1 Problem Statement**

There are several department in Universiti Teknologi PETRONAS (UTP) that performs several function based on their scope of work. Some perform well but some departments do not. Students always complain about the services provided by those departments but they do not know the right medium to express their complaints. They usually post it in the unofficial student's forum or write a complaint letter to Student Representative Council (also known as MPP) where MPP will bring this issue to these departments and asked for their explanation. However, there seem to be no improvement from efforts of MPP to these departments. The same problem occurs again and the process repeats itself. Bored of this method, most students prefer to email their dissatisfaction and complaint to Rector. By emailing to Rector, their voice will be heard and the necessary action will be taken as soon as possible.

When mentioned about survey, people will think about the black and white printing paper that consists of many question printed on it. Paper medium is not attractive and it's tedious to upkeep. This method is not really efficient because the respondent face difficulties in changing the answer where they need to have eraser or pen correction to erase the answer that they want to change. By collecting the responses via the online survey, it eliminates printing and mailing costs. The traditional paper survey can be constrained by the number of respondents due to the high cost in printing as compared to online survey. With online survey, all UTP members have a chance to response to the survey and give their feedback and comments.

In paper survey, when a huge number of people are involved, the process of monitoring the results becomes more difficult and complicated. They would have to monitor and keep track for each question to chart the results. But with online survey, the compilation of results and the answering trend can be done automatically. By using certain software, survey administrator can view the survey progress chart and do a daily compilation of the survey results.

Finally, each department in UTP can measure their services performance based on the result and feedback from the survey. Currently, UTP does not know its student's satisfaction level towards their services performance and there is no system developed to view the student's feedback towards the department. By developing this online UTP Student Satisfaction Index Survey 2008, these departments can view the results and take necessary actions that can improve their performance level.

## **1.2 Objectives**

1. To develop a system that is able to get feedback from UTP students on the services provided by certain department.
2. To develop a system that can generate or save results effectively with low manpower effort.

## **1.3 Scope of Study**

### **1.3.1 Study on Online Survey**

Currently, online surveys that measures the customer satisfaction index towards certain services is only conducted by business companies. The reason is to get some feedback from their customers about their services and products as well as to improve their performance so that they can serve their customers better. Currently, the only online survey that is conducted by UTP is the Online Survey for Corporate Security Services Department that was conducted in the middle of April 2008. Other than that, only paper based and email survey that only involved a certain group of students.

Nowadays, everyone focuses on developing something that makes their life easier since technology keeps changing. The interest towards the web design and web development is also increasing from year to year where we can see new applications being developed based on the current technologies. Here, the idea of developing an online survey came out. For this project, the online survey is focused on UTP students satisfactions towards the services provide by departments in UTP. This online survey system will be developed using PHP Programming language with some JavaScript function. During the system development process, the author has to deal with the person in charge within a certain department in UTP in order to get relevant information and requirements. The system development uses Prototyping-Based Methodology approach with the combination of the user centered design elements as a development methodology.

### **1.3.2 Study on Department Flow of Work**

The developments of this online survey system focus on the study of flow of work for each department when dealing with the complaints made by UTP students. The study was done by interviewing the person in charge from each department about their department's job scope and services as well as the type of complains they receive from students. Most of the students voice out their complaint through MPP. After making complain through MPP about certain services provides by certain department, the staff from these departments will try to solve the students' problems. Then, there is no follow up action such as asking the student feedback towards their services done by those staff from the department. So they do not know the student level of satisfaction for the services that they have provide. Thus, an online survey is the best medium to get the students feedback toward their services promptly and efficiently. They can conduct this online survey once in one semester or once a year.

### **1.3.3 Study on UTP Student's Behavior**

A study also been done to identify the number of UTP students that are novice and professional computer users. This is important because this will be considered in designing the system interface. Interview and questionnaire was conducted to a number of UTP students from different field of study in order to get an overview of

the features and functions that should be included on the online survey page so that the interface encourage them to answer all questions. The study was also done to identify the types of online survey interface that suit their interests.

### **1.3.4 The Scope of the Online Survey**

The scope of the UTP Student Satisfaction Index Survey 2008 is to provide UTP students with a series of questions consisting of eight modules that represents each department that is available in UTP. These survey modules will be developed based on the requirement and information given by the representative from each department. Table 1 list out the survey modules that will be included inside the UTP Student Satisfaction Index Survey 2008

**Table 1 : Survey Module Division**

<b>No.</b>	<b>Survey Modules</b>
1	General Survey
2	Academic Central Services
3	Student Support Services
4	Residential College Office
5	Information Technology Multimedia Services
6	Corporate Security Unit
7	Information Research Center
8	Student Industrial Internship Unit
9	Student Representative Council (MPPUTP)

However, due to time constraint, only four departments will be choosing for this project. These departments are Academic Central Services, Residential College Office, Student Industrial Internship Unit and Student Representative Council (MPPUTP).

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 LITERATURE REVIEW**

Survey can be defined as the process of gathering a sample of data or opinions from a given population for a purpose of analysis of a particular issue. The respondents for this survey are UTP students who had experience dealing with the services provide by those departments. This survey is an online survey where respondents can access it through their personal computer or computers at lab and library around the campus area. A respondent is only required to participate in one survey session. Why online survey is more favorable than paper based survey? This is because nowadays the online surveys utilize HTML tables, multiple colors, motion and other advance features as a mean of getting respondents to provide answers. Beside that, this is also an effort to make the process of answering as efficient as possible for computer-literate respondents, questionnaire formats quite different from those typically used in paper survey (Bowker, 1999).

#### **2.1 Online Survey and Paper Based Survey**

##### **2.1.1 Advantages of Online Survey over Paper Based Survey**

This online survey is different from the traditional paper survey. In practice, traditional paper questionnaire favor the use of number and answer boxes placed on the left and have been applied to the vast majority of web surveys we have reviewed (Bowker,1999). In an online survey, the answer boxes are placed on specified space as required by the customer design preference. Using traditional paper survey, respondents “navigate” through the document with effort by turning the pages back and forth. In an online survey, it requires respondent to use either keyboard or mouse to advance to the next question. It is easy for users as they can change their answers

by checking the appropriate answer while in traditional paper survey, they need to use eraser or correction pen to erase their current choice and check the new choice.

The use of web surveys makes it possible for entirely new ways of presenting information to respondents. Not only multiple colors can be applied but also several additional features can be added to questionnaire (Dillman & Bowker, 1998). For paper survey, most of the features are black wording printed on the white paper. But some are also printed on the colour paper with some attractive design and wording. This will involve the high cost for printing the survey paper.

### **2.1.2 Disadvantages of Online Survey when Compared to Paper Based Survey**

The limited coverage for the web that leads to the coverage error is one of the disadvantages of the online survey. Coverage error is result from not giving everyone a known zero chance of being included in a survey (Dillman & Bowker, 1998). This is because some people cannot access the online survey due to no access to the Internet. In paper based survey, respondents will gather in one place and answer the entire survey question at the same place. But, this is not a problem for UTP students as the survey will be done inside the campus area where every student has computers and Intranet access.

Another serious source of potential problem in online surveys is the no response problem associated with posting a web questionnaire and inviting people to response. This is due to lack of basic computer knowledge and poor questionnaire design (Dillman & Bowker, 1998). But for paper survey, everything is easy because the respondent just need to answer by using pencil or pen without any additional knowledge. Dillman and Bowker through their article had stated some of the factors that lead to the respondent frustration when doing the online survey. The frustrations are:

- Respondent who lack computer experience do not know how to provide and erase certain answer, e.g radio buttons, which require clicking on a different answer choice and some of them not knowing what to do with a drop-down menu.
- Not being able to see all of the answer choices without scrolling the page up and down.
- Being forced to answer every question, even when none of the answer choices seemed appropriate.
- Not knowing how close to the end of the questionnaire they were.
- Having to take multiple actions to answer each question (e.g. clicking on an answer choice, moving to the scroll bar in order to reveal a “click for next page instruction,” and then clicking on that instruction to make the next question appear).

This UTP Student Satisfaction Index Survey 2008 will try to avoid these mention problems. A series of study will be done to study the respondents preference when deal with online survey.

Other than that, the enduring problem with online survey is that what the designer of a web questionnaire sees on the screen may differ significantly from what some and in other cases perhaps most, respondents would see on their screens (Dillman & Bowker). The research done regarding this problem has yet to provide any solutions. In paper survey, both parties (developer and respondents) see the same design and layout of the survey question paper.

## **2.2 Online Survey and Email Survey**

Paper based survey is not efficient in today’s environment as maintenance is high. With the advancement of technologies, surveys can also be done through online or email. For the record, there are two forms of electronic surveys have emerged in the last fifteen years. The first, asynchronous email survey dates back to 1986 (Kiesler & Sproull, 1986) and the second, synchronous Web-based survey, started about 1994 (Kehoe & Pitkow, 1996). The different is email survey was introduce earlier than online survey and it is still can be used in today’s world. However, online survey is

the best approach to conduct UTP Student Satisfaction Index Survey 2008 because online surveys have distinctive technological, demographic and response characteristics that affect how they should be designed, when they can be used and how they can be implemented. Online survey provides the ability to automatically verify and store survey results using database technology and HTML user interface while email surveys are either embedded directly within an email message or attached as a word document and must be manually transferred and entered into storage (Preece et al, 2002). Email survey does not have much difference with paper survey but the only distinct difference is that it uses computer and internet technology. In other words, online survey are superior to email survey in many aspects but that email combined, perhaps with an offline media is an excellent medium for inviting people to participate in online survey (Preece et al., 2002).

Other than that, when conducting email survey, there are possibilities that the respondent can alter the survey by changing, eliminating or adding the survey question that had been emailed to them. In online survey, the alteration only can be done by the developer or the system administrator with the request from the project team. For UTP Student Satisfaction Index Survey 2008, the questions and result page will be prepared by the system developer with the help of some people from each department in order to make sure that the questions created are related to their services. Compare to email survey, the online survey has a wide range of textual options, format control and graphics sophistication not attainable with email surveys. The advantages include links, clicks, defaults and menus (Preece et al, 2002).

Finally, UTP Student Satisfaction Index Survey 2008 was developed based on the online survey guidelines. The programming language used is PHP Programming with some JavaScript Function. For the development of result page, Fusion chart software will be used.

### **2.3 User Centered Design**

User Centered Design (UCD) is a design approach in which multidisciplinary development teams create useful, usable and satisfying user experiences. Most of the



inputs come from the users where these input is collected and analyzed and will be used for progressive refinement and improvement of the system under design phase (IBM T.J. Watson Research Team). Incorporating a user centered design approach does not have to be expensive because it is always possible to incorporate some level of effort within the expected development schedule (Fox et al). This online survey will be developed by using the user centered design approach. This is because, in order to encourage participant, survey developers need to design the online survey that will provide as a positive of an experience as possible for the widest range of respondents and a key element of that design is ensuring the usability of the online survey. Usability is defined as the effectiveness, efficiency and satisfaction experiences by respondents as they provide the requested survey data (Fox et al).

The screen design is one of the issues that affect the usability of the online surveys. Although there are many sources of guidelines for designing a web application, but only few that focus on online survey (Fox et al). The popular sources that specifically address online survey issues is Dillman and Bowker where they propose 14 principles for guiding the online survey design and addressing four major sources of survey errors.

Usability testing is the most common tool for user centered design. It is highly desirable to test actual users but users with roughly comparable characteristics will suffice in early stages of the testing (Fox et al). Beside that the frequency of usability testing depends on the application being built. Generally, the usability testing for the online survey will be done every two or three months because to give the developers the time to incorporate the design changes. Currently, usability testing only be done by myself (programmer) using the computer with local host due to time constraint.

## CHAPTER 3

### METHODOLOGY

#### 3.0 METHODOLOGY

##### 3.1 Methodology

The UTP Student Satisfaction Index Survey 2008 development will follow a Prototyping-Based Methodology as shown by the diagram below:

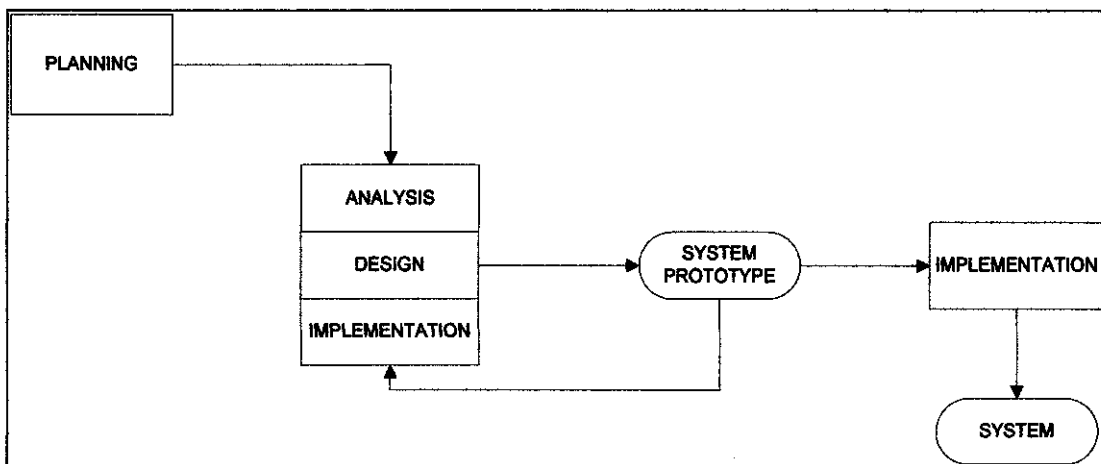


Figure 1: Methodology Approach for UTP Student Satisfaction Index Survey 2008

Figure 1 shows the diagram that represents the methodology approach that was used. The Prototype-Based Methodology was chosen because it very quickly provides a system for the users to interact with even if it is not ready for widespread organizational use at first. By using prototyping, the user will better understand what the system can and cannot do.

In this methodology approach, the Analysis, Design and Implementation phases are performed concurrently and all the three phases are performed repeatedly in a development cycle until the system is complete. By using this Prototype-Based

Methodology, the basic project Analysis and Design are performed, and work immediately begins on system prototype, a “quick-and-dirty” program that provide a minimal amount of features. The first prototype is usually the first part of the project that user will use as a testing. The comment given by the user during the prototype testing will be used to re-analyzed, re-design and re-implement the second prototype that provides a few more features than the first prototype. This process will continue in a cycle until the analyst and users agree that the prototype provides enough functionality to be used in the organization.

For this project, a series of design and prototyping will be provided in order to make sure that the online survey function well. Beside that, the user feedback on the interface design and its features will be considered since they are the people that will respond to the survey. The following paragraph will discuss the activities that involved in each phases of the UTP Student Satisfaction Index Survey 2008 development process.

### Project Planning

Purpose:

To determine the project goals and objectives, technology used, project timeline, resources and budget.

Activities involves in this phase:

- Define project objectives
- Identify project requirements
- Prepared the proposal

### Project Analysis

Purpose:

To determine the functional and technical requirement of UTP Student’s Satisfaction Index Survey 2008.

Activities involved in this phase:

- Conduct a series of interview with the people from each department regarding their department services and UTP student's complaint toward their services.
- Requirements study
- Define functional and technical requirements
- Conduct user evaluation and feedback on what they want the system should look like.

### Project Design

Purpose:

To describe the desired features and operations in detail, including screen layouts, database review, code and other documentation.

Activities involves in this phase:

- Question page and result page design architecture
- Database design
- Website design

### System Prototype

There are two activities will be involves in design prototype phase.

#### *a. Project Development*

Purpose:

To translate the design specifications into computer code, build the database and develop the system.

Activities involves in this phase:

- UTP Student Satisfaction Index Survey 2008 questions and results page development
- Conduct user evaluation and feedback in order to make sure the system full fill the user requirement.
- Review final application

### *b. Project Testing*

Purpose:

To bring all the pieces together into testing environment, and then checks for any errors, bugs and interoperability.

Activities involve in this phase:

- Conduct prototype Usability Testing
- Conduct User Acceptance Test
- Conduct an interview or survey in order to know the users feedback
- Conduct system modification

### *Project Implementation*

Purpose:

This is the final stage of an initial development where the system is put into production in order to ensure the system operability and efficiency in the run time.

Activities involve in this phase:

- Monitor the results to ensure the system met the requirements
- Create the user guide and provide training to the user who will use the system.

## **3.2 Tools Required**

### • *HTML and PHP Editors*

HTML and PHP Editors used to translate the design into the coding. For this project, HTML and PHP Editors used is Macromedia Dreamweaver.

### • *Database*

For this project, phpMyAdmin was used as the project database. SQL Language also was used along with PHP Script.

- *Graphics*

For graphics purpose, Adobe Photoshop software will be used in this online survey project.

- *Result Graph Presentation*

For the result graph presentation, the Fusion Chart Software will be used. Fusion Charts is a set of Macromedia Flash (SWF) files that helps to create an eye-catching animated chart. This Fusion Chart component does not need any installation, it works with any scripting language, can run on a majority of browsers, interactive and it is completely scalable and flexible.

### 3.3 Project Timeline

The project's timeline maps with the project's sub-divided task as shown in Table 2 below. For the Gantt chart view, please refer to Appendix A.

Table 2: Project Timeline

<b>Tasks</b>	<b>Duration (Days-according to working day)</b>
Project Planning	6
Information Gathering	47
System Flowchart and Diagram Design	7
Interface and Layout Design	9
Survey Question Created and Review	25
Database Design	5
Online Survey Question Page Develop	45
Online Survey Result Page Develop	25
System Testing and Maintenance	11
Seminar	1
Exhibition(Pre-EDX)	1
Final Report (Project Documentation) Submission	1
Final Report - Oral Presentation	5
Dissertation Submission	1

## **CHAPTER 4**

### **RESULTS AND DISCUSSION**

#### **4.0 RESULTS AND DISCUSSION**

##### **4.1 Introduction**

As stated earlier, the aim of this UTP Student Satisfaction Index Survey 2008 is to measure the satisfaction of users towards the services provided by specific departments in Universiti Teknologi PETRONAS (UTP). This survey will be done online because online surveys can avoid the cost and effort of printing, distributing and collecting in paper form. Besides that, many people prefer to answer survey displayed on the screen instead of filling in and returning a printed form. For this project, the departments include Student Industrial Internship Unit, Residential College Office, Academic Central Services and Student Representative Council. These four departments had been chosen because these departments always deal with the UTP students.

This online survey can be conducted annually and contains a series of statements concerning these selected department services. UTP students are required to rate the level of their satisfaction towards the services and give their feedback. Usually the online survey will operate for approximately one month and each UTP students only can response one time. The result will be saved into the database and specific software will be used to generate the result and present it in the graphic chart format.

##### **4.2 Project Requirements**

- *Content*

The content or questions for the UTP Student Satisfaction Index Survey 2008 will be created based on the information gathered from the interviews that was done with the respective people from the selected departments. These questions will cover the



general UTP students experience with all departments that available in UTP. Then the remaining question is associated to specific departments that had been selected.

- *Participant Requirements*

This UTP Student Satisfaction Index Survey 2008 will present the participants with five surveys and consists of two parts as listed below.

- i. General Survey - Applies to all departments that are available in UTP.
- ii. Specific Survey - Applies to specific departments in which the participant has experience with. Participant may respond to more than one specific departmental survey.

- *Administrator Requirements*

The System Administrator must be able to view and produce reports on the number of UTP students that have taken the UTP Student Satisfaction Index Survey 2008 per day. Beside that, they are also responsible for maintaining the database and generating the survey result and present it in a graphic or chart format so that it will be easy to analyze.

## **4.3 Information Gathering**

### **4.3.1 Interview**

Interview was done with some people from each selected departments in order to gather the information regarding their department. The information was useful in creating the survey question. The questions that were asked during the interview session are more on the department's function and the services that they provide to UTP students. Beside that, the type of complaints that are usually received from the UTP students and the how these departments deal with these complaints also will be asked during the interview session. The members of Student Representative Council were also interviewed since they are the communication medium between the students and the UTP management. The information gained through this interview was also useful for this UTP Student Satisfaction Index Survey 2008. The following

paragraphs explain the results that were gathered through the interview sessions. The questions asked for these departments were attached in Appendix D.

### ***Student Industrial Internship Unit (SIIU)***

SIIU is responsible for managing students who will undergo their internship training. Their function can be divided into three sections, which are:

#### ***Before Internship***

SIIU is responsible for finding a place for students who will undergo their internship on the next semester. They must ensure that the eligible students registered their name to undergo the internship training for the next semester. They will give a briefing to students and arrange a series of information-sharing session from potential companies as well as update the student's placement status. They also help students who got multiple offers and also the student who did not received any offer for their internship placement.

#### ***During Internship***

During the student internship period, SIIU must ensure that the student are already registered at their host company, deal with students who had problems with their host company and arrange the visit timetable with the lecturers from respective departments. They also will inform the student about their lecturer's visit.

#### ***After Internship***

SIIU will arrange the student's final report and weekly reports submission and deal with the lecturers for internship results. Then they will submit the results to examination unit for record.

### **SIIU and Problems**

SIIU sometimes have problem during their services to students. Most of the problems and complaints received happen before the internship starts. Some of the complaints they received from students includes

- No update regarding the student placement status and some important information that is needed by the students. This happen due to the elearning problem as the announcement from SIIU will be posted on elearning since it is the medium they can use to reach students.
- Students also complain about the SIIU not informing them about certain companies that need interns.
- Students are not satisfied with the placement to the Operating PETRONAS Unit (OPU) companies because the placement will be done through SIIU. Student are not satisfied because they think SIIU are bias towards them and feel they should be in OPU but SIIU did not email their resume to them.
- Students complain that SIIU did not inform them about their industry visit schedule earlier.

The complaints are received through email. The student will email to UTP Rector and then the Rector will forward the issues to the Head of SIIU. SIIU will review the complaint before they take necessary action. SIIU also does their own survey with the students but it is a paper based survey. The students are required to complete the survey during the final report and weekly reports submission.

### ***Residential College Office***

There are six villages that are provided by UTP for students as their hostel. That villages are old V5 Village (now change to V6), Village 1, Village 2 (also known as Lembaran), Village 3, Village 4 and Village 5. All six villages are managed by Residential College Office. Residential College Office is the department that manages the student residential colleges and the cafeteria in each village. They are responsible to ensure that the rooms are comfortable for the students, the hostel accommodations functions properly and the café serves the student well. Besides that, they also deal with the problem where the student who are not comfortable with their roommates and other students welfare. In order to make their management process run smoothly, Residential College Office has assigned a number of fellows that are responsible for each village that are available in UTP as well as set up a

student committee for the residential college that is the Residential College Student Unit that is managed by students with the help of the village fellow.

### Residential College Office and Problems

Most of the problem received by Residential College Office are on the hostel conditions and not with the services provides by the Residential College Staff. Students will lodge a report to the Residential College Office in their villages then the staff will try to solve the problem as soon as possible. Sometimes if the students are not satisfied with the Residential College Office services, they will complaint it through an email to the Rector. The Rector then forwards the email to the Residential College Office Head for the next action.

Residential College Office also does its own survey which it is a paper based survey that is conducted once a year. There are two surveys conducted by the Residential College Office which are survey on cafeteria and survey on the services of the fellow for each village. The survey for cafeteria is conducted when they want to offer a tender to café owners. The respondents for this survey are randomly picked but mostly are cafeteria's regular customers and the questions are based on their experienced with the cafeteria foods and services. For the survey on the fellow, the respondents are the student village committee since they are the one who work with the fellow. The questions are based on the fellow services, he/she availability when needed, their attendance during meeting and their relationship with residential college committees as well as their relationship and services to other students in the village under his/her supervision. Usually, the survey on fellow which receives negatives feedback from the students and the Residential College Office will take an action towards that fellow such as terminate their service.

### ***Academic Central Services (ACS) Department***

Academic Central Services (ACS) is responsible for managing the academic related tasks such as course timetable, examination timetable, class and examination location, scheduling the academic calendar and anything that related to the academic and students. Beside that, they also deal with course registration and timetable

problems. This department use elearning as a medium to publish the latest and important information or announcements since students will login into the elearning system few times a day. For the course registration and confirmation purpose, they use an online registration system where the link is available through UTP Website.

#### Academic Central Services Department and Problems

Most of the problems received by Academic Centre Department are those related to course timetable and this happen at the beginning of every semester. Students always come to ACS Unit to settle their timetable problem and the course registration problem. The staff in ACS department will try their best to overcome these problem as soon as possible and ensure that the solution satisfy both lecturers and the students. Students prefer to complaint about the ACS Department by sending their complaint letter to the Rector through email. Then the Rector will forward the issues to the head of department for the next action.

#### ***Student Representative Council***

Student Representative Council (also known as MPP) is the student's organization where all the committee was elected by the students through the MPP election that is held in the month of October every year. Headed by the High Committee, the council consists of seven departments that have their own specific responsibilities that represent the students of UTP in great ways. MPP is responsible to help the university in managing the issues that relate to students. They also act as the medium for students to channel their grievances and to voice their opinions to the university's management.

#### MPPUTP and students

MPP will do their best to help students overcome their problem. Some student will email their complaint toward certain UTP management department to MPP. Then MPP committee will review the complaint received before taking any action. If the issues can be solved without involving these departments, they will do the best to solve it. But if they need clarification and explanation from these departments, then they will see the representative from the department that was specified by the

students in the complaint letter and discuss with them on how to overcome these issues. Sometimes, MPP faced the difficulties when student's straight away email the complaint to the Rector even it is just a small issue. In order to avoid this problem, MPPUTP had created their own blog and forum session so that student can discuss their complaint and problem with UTP management as well as brainstorm together with other students on how to solve the problem without involving Rector.

#### 4.3.2 Questionnaires

The second information gathering technique is questionnaires. A group of 30 students from different program and year has been assigned to answer this questionnaire. The purpose of this questionnaire is to determine the student thoughts of online survey and to know what they want the online survey to be. Appendix G shows the results of the questionnaires.

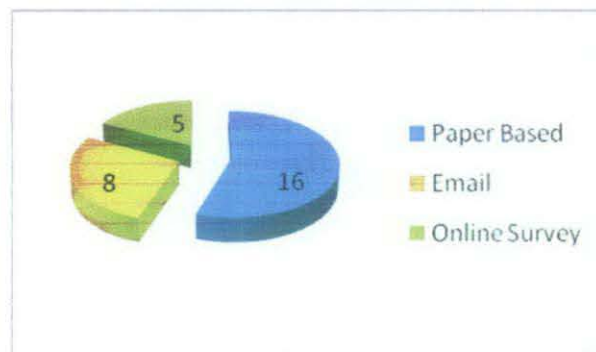


Figure 2 (a): Type of Survey answer by Students

Based on the results, all the 30 students knew about online surveys where five out of 30 students had experienced answering an online survey while the others only experienced answering paper-based and email survey.

When asked about the features that needs to be considered to be included inside the survey page, 27 out of 30 students request for the faster loading page followed by 21 students prefer that the sentences used are easy to understand. The results that were received through this questionnaire are really important as these results will be used as references when designing the survey page interface. Beside that, 13 out of 30 students said that the suitable period for answering the survey is around 10 to 15

minutes. Students view is important in this project since they are the respondents for this UTP Student Satisfaction Index Survey 2008.

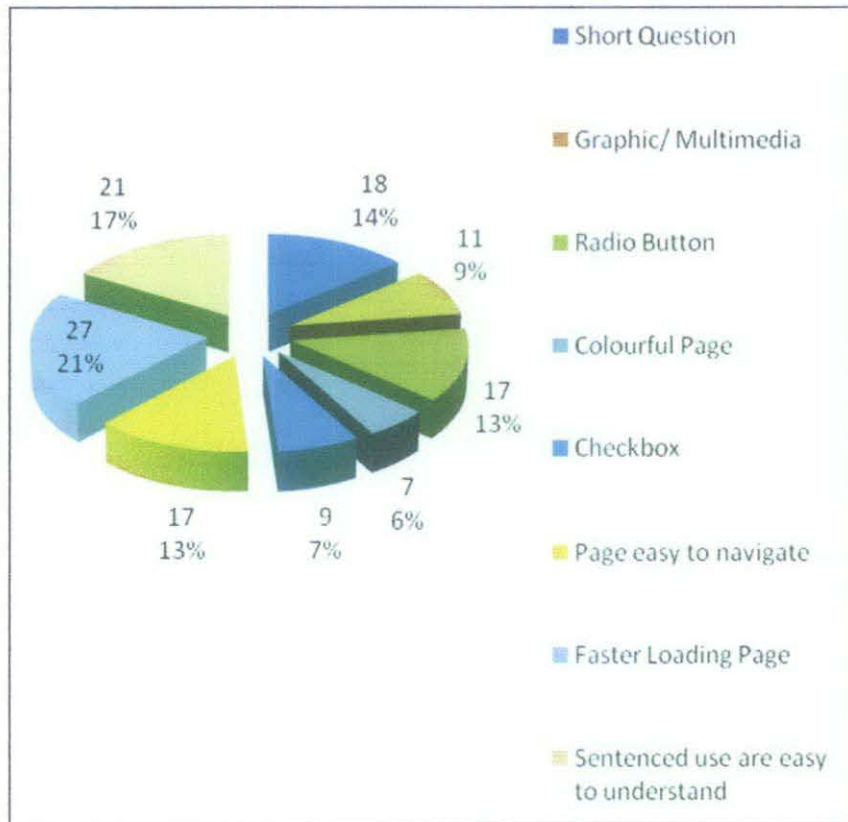


Figure 2 (b): Features of Online Survey

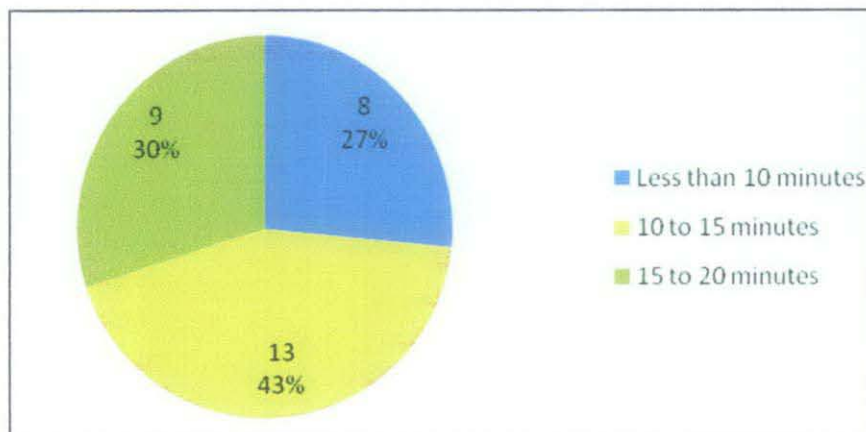


Figure 2 (c): Time Needed to Answer the Online Survey

#### 4.4 System Use Case Diagram

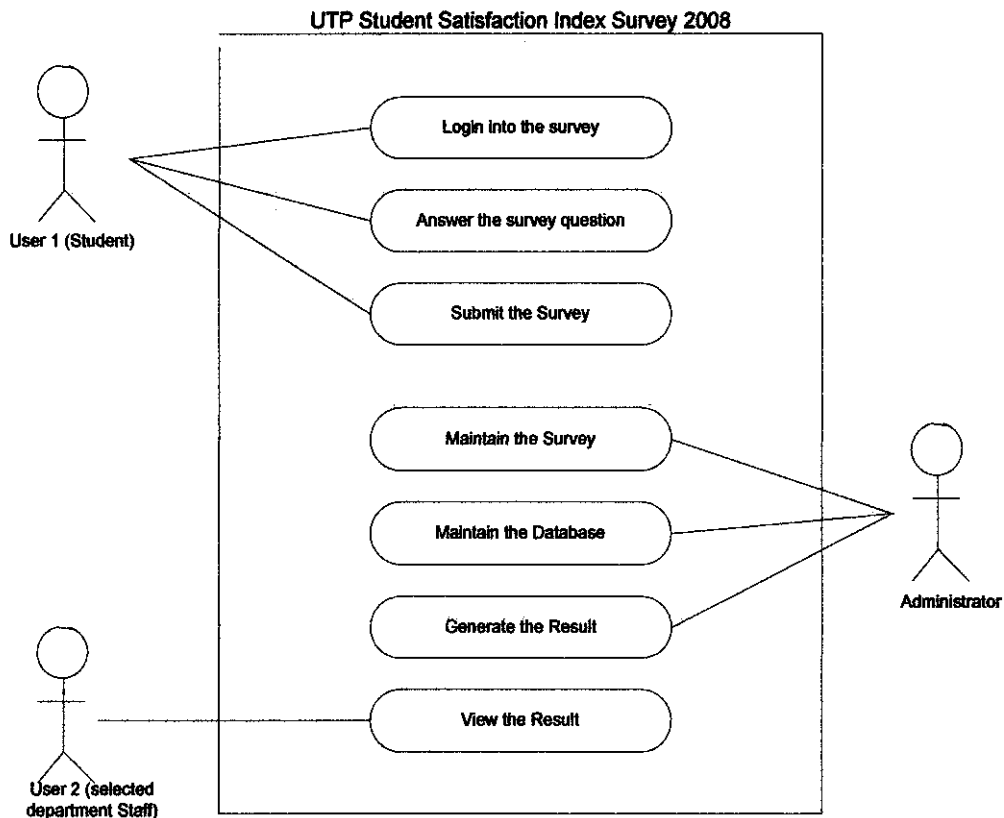


Figure 3 : UTP Student Satisfaction Index Survey 2008 Use Case Diagram

Figure 3 shows the Use Case Diagram for UTP Student Satisfaction Index Survey 2008. This system will be used by two groups of users that are UTP students and staff from the selected department (Student Industrial Internship Unit, Residential College, Academic Central Services and Student Representative Council). These two groups of users have their own reason for dealing with the system. User 1, that is UTP students can be considered as the main user of this system. They will login into the system, answer the survey questions and then submit the survey that they had been answered. For this survey, students have no permission to view the survey. On the other hand, User 2, that is the staff from the selected department only use the system for the purpose of viewing the result but their view is just limited to the respond for their own department only. They cannot view the result for other department unless they have the permission to do so. Besides User 1 and User 2, the third party that also deals with the system is the system administrator. This system



administrator is responsible for maintaining the smooth operation of the system, maintaining the database and generating the results from the database to be viewed by the people from the selected department.

#### 4.5 System Flowchart

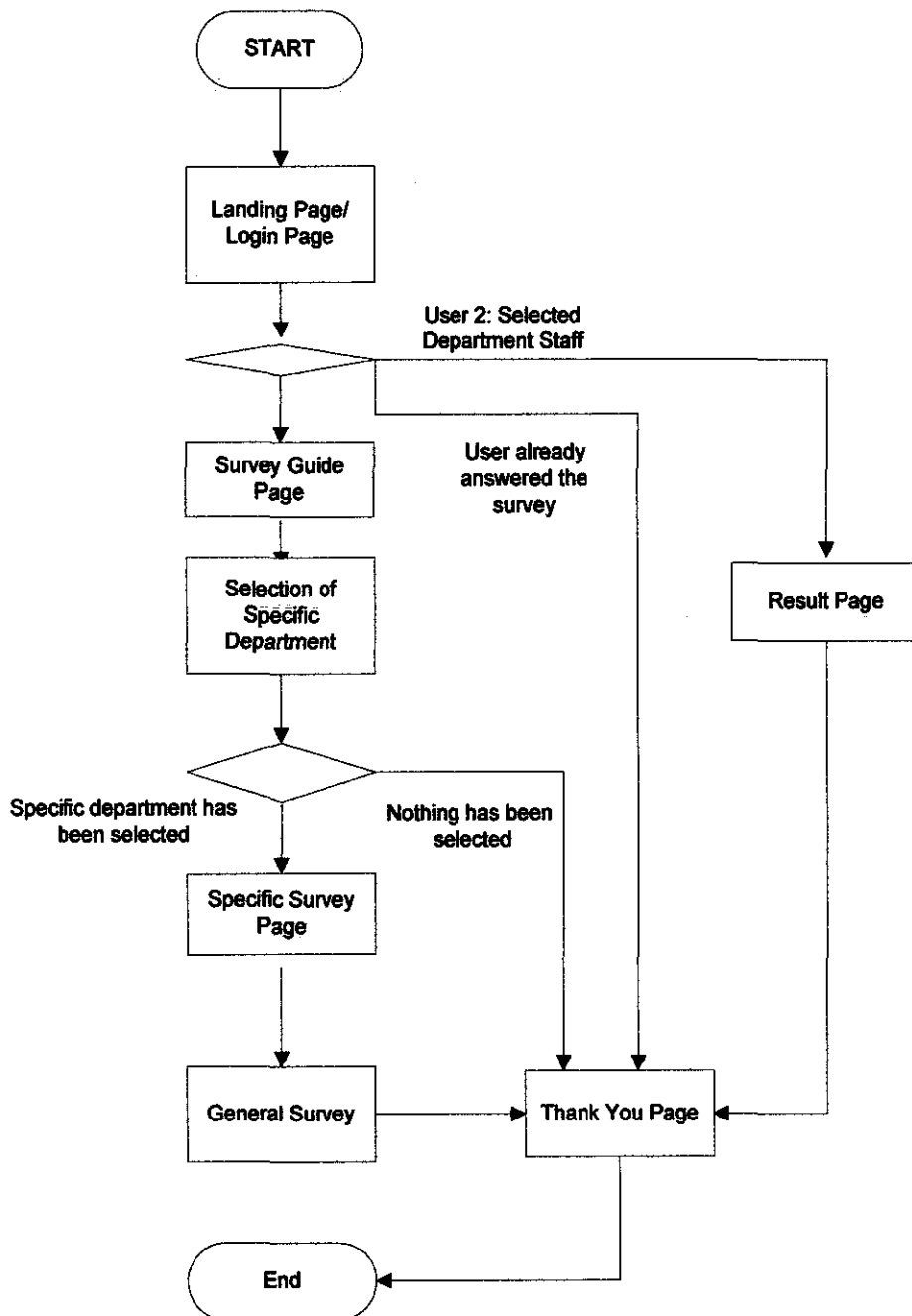


Figure 4: System Flowchart

Figure 4 shows the flowchart for UTP Student Satisfaction Index Survey 2008. The flowchart describes how the online survey functions and is further described in the following paragraphs.

- *Landing Page/Login Page*

Landing page is a page which contains the information about the survey such as the purpose and objective of the survey. Landing Page also function as a Login Page for this survey. In this page, the respondent need to type in their password in order to participate in this online survey. If they have already answered the survey, the page will be redirected to the “Thank You” page. If they have not answered the survey, then the page will be redirected to the “Guide Page”. In the case for User 2 that is the staff from the selected department, once they type in their password, the page will be directed to the “Result Page”.

- *Guide Page*

The guide page contains the instructions on how to answer the survey. This page is provided because we assumed that not all the respondents are professional computer users. Once they have finished reading the instructions, the respondent will have to click on the “Next” button that will bring them to the next page that is the “Demographic Page”.

- *Result Page*

This “Result Page” is only available for the staff from the selected department that has the authority to view the results. The results that can be viewed are from the radio button and checkbox type of questions. The written comment will be not presented in the result page but they will be extracted in the form of Microsoft Excel and will be sent to the selected department staff by the administrator. This is because the comments given by the respondent to the department are private and confidential only that department can view it.

For the Administrator view, administrator has the authority to view the results and comments given by the respondents to all departments. This is because they are responsible in maintaining the survey and the result trends.

- *Selection of Specific Department*

In this section, respondents must select a specific department for survey that they want to participate in. The selected survey will be used as a reference by the system. If the respondents did not choose any one of the department, the pop up message will be appeared asking them to select at least one department.

- *Specific Survey Page*

Once the respondents had chosen the department survey that they want to participate in, the specific survey page will appear. All the question in this page is all about the department that had been selected.

- *General Survey Page*

General Survey Page is a compulsory question page for all respondents. Respondents are required to answer all the survey questions in this page. This page contains the question that asked about the overall student view towards the departments that available in UTP.

#### **4.6 Interface and Layout Design**

Interface and survey page layout is important for online surveys. This is because one of the purposes of online survey is to make it different from paper-based and email based survey. Based on some experts, online survey should be designed to:

- Support multiple platforms and browsers (Yun & Trumbo,2000)
- Prevent multiple submissions (Yun & Trumbo, 2000)
- Have the ability to present questions in a logical or adaptive manner. (Kehoe & Pitkow, 1996)
- Collect both qualified selection option answers and narrative type question answers. (Yun & Trumbo, 2000)

- Provide feedback “Thank You” upon completion of the survey. (Smith, 1997)

In UTP, engineering students do not really use the computer to do their work as compared to the technology students. So, the interface design should be user friendly so that these engineering students know what they should do as they will feel excited to answer the survey. The selection of colour is an important element in designing the survey page. This is because if we choose the wrong colour, the page will look either dull or to fancy. So, the selection of color was made based on the purpose of the survey and the organization that uses the survey. Beside that, the layout design was also considered. This is to ensure that the buttons were placed in the right place as well as the questions. Figure 5 (a), Figure 5 (b) and Figure 5 (c) below shows the interface and layout design for the UTP Student Satisfaction Index Survey 2008.

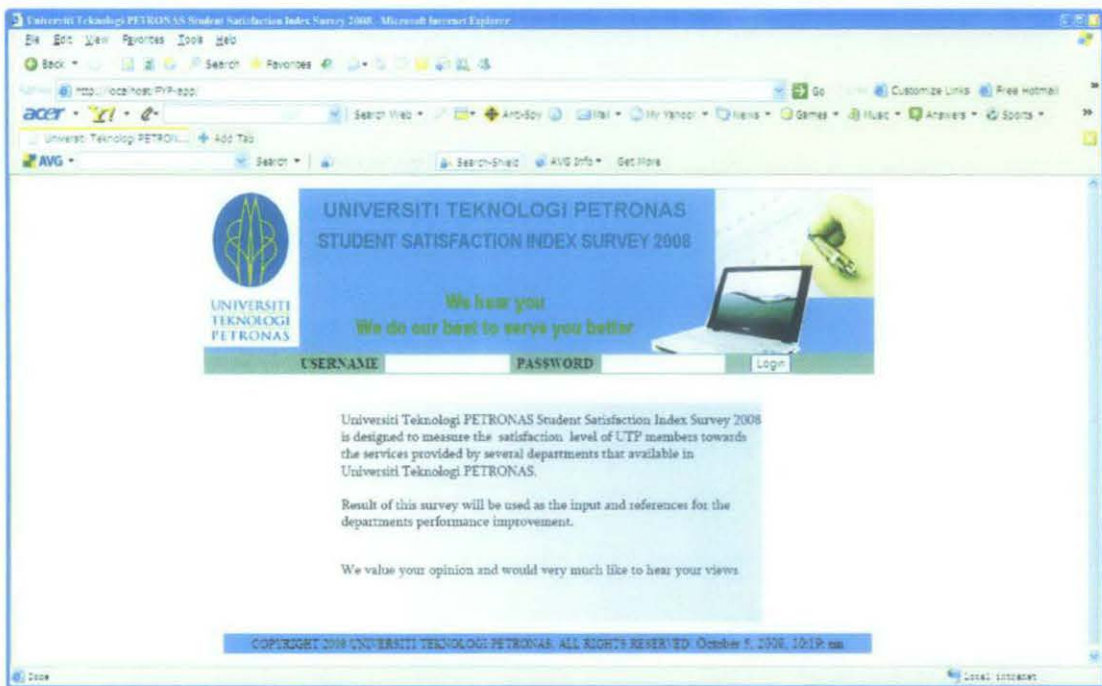


Figure 5 (a): Interface Design for the Survey Welcome / Login Page

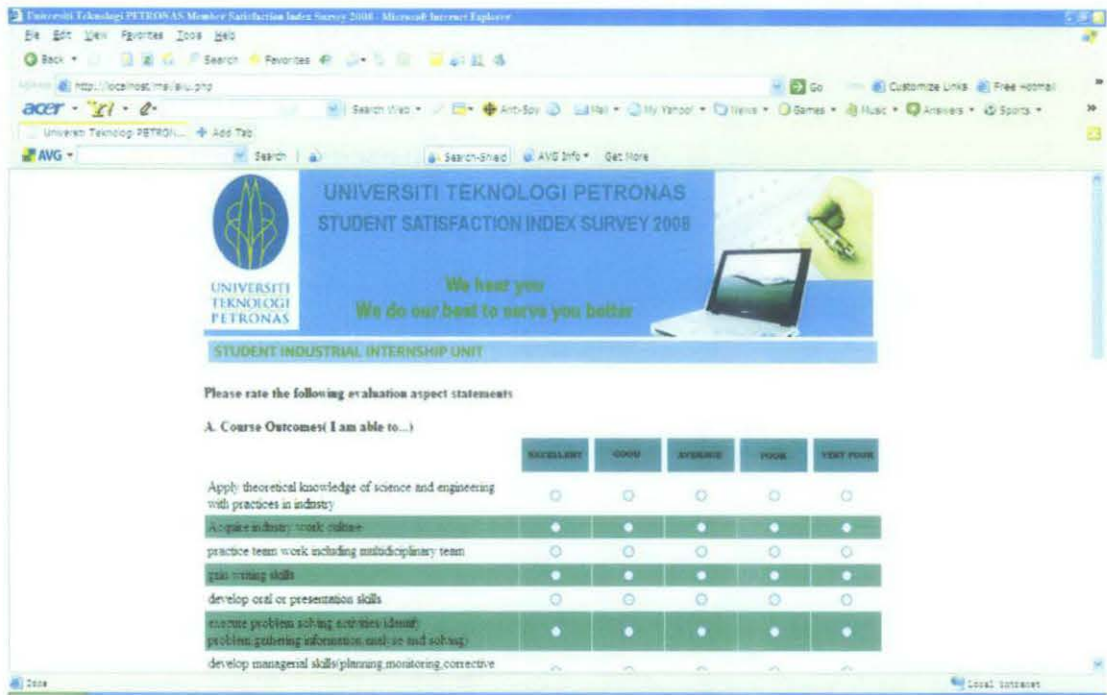


Figure 5 (b): Interface Design for the Survey Question Page

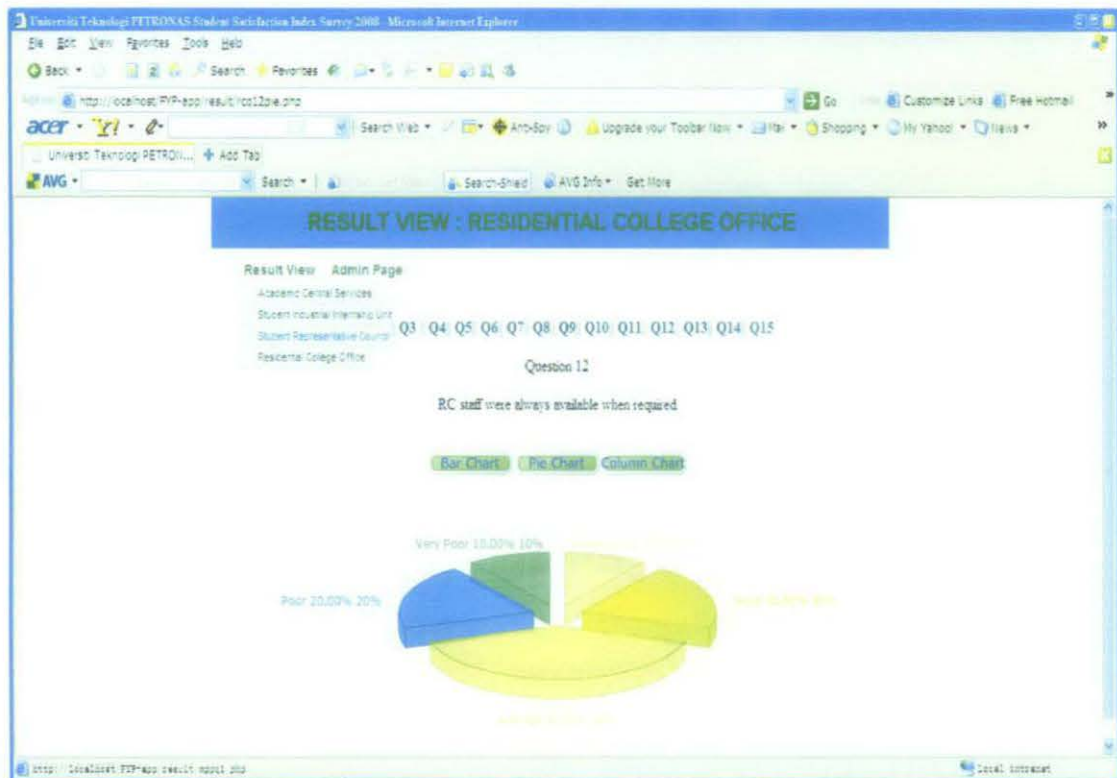


Figure 5 (c): Interface Design for the Survey Result Page

#### **4.7 Questions Created and Review**

Once the system flowchart had been determine, the next step is to create the questions that need to be placed inside an online survey. The question will be created based on the information that had been collected through the interview session. The number of question for each department was based on the services and function that department provides for the students. Beside that, some of the question that had been used by these departments for their paper-based survey was also included into the survey. This is because the questions are still the same but the way on how to represents the questions has been changed that is from paper-based survey into the online survey.

The process of creating questions is among the important process in developing this online survey. This is because we need to sure that the questions created were relevant, short and easy to understand by the respondent of this survey. As stated earlier, the user of this online survey is UTP students. So the questions were created based on the students' view, common question which always comes up in the students mind when they want to lodge a report about these departments. Appendix B shows the questions that were created on the online survey question page.

## 4.8 Development of Database

The next step is to design the structure of the database. There are seven tables created in the UTP Satisfaction Student Index 2008 database. Table 3(a), (b), (c), (d), (e), (f) and (g) below shows the table that had been created in the database.

Table 3 (a): Table Structure for table **general**

Field	Type
Date	timestamp
password	varchar(10)
studID	varchar(10)
studName	varchar(55)
program	text
year	text
serv_1	varchar(10)
serv_2	varchar(10)
serv_3	varchar(10)
serv_4	varchar(10)

Table 3 (b): Table Structure for table **details**

Field	Type
password	varchar(10)
studID	varchar(10)
studName	varchar(55)

Table 3 (c): Table Structure for table

**acs**

Field	Type
Date	timestamp
password	varchar(10)
studID	varchar(10)
studName	varchar(55)
program	text
year	text
acs1	text
acs2	text
acs3	text
acs4	text
acs5	text
acs6	text
acs7	text
acs8	text
acs9	text
acs10	text
acs11	text

Table 3 (d): Table Structure for table

**mpp**

Field	Type
Date	timestamp
password	varchar(10)
studID	varchar(10)
studName	varchar(55)
program	text
year	text
ques1	text
ques2	text
ques3	text
ques4	text
ques5	text
ques6	text
ques7	text
ques8	text
ques9	text
ques10	text
ques11	text



Table 3 (e): Table Structure for  
table rc

Field	Type
Date	timestamp
password	varchar(10)
studID	varchar(10)
studName	varchar(55)
program	text
year	text
rc1	text
rc2	text
rc3	text
rc4	text
rc5	text
rc6	text
rc7	text
rc8	text
rc9	text
rc10	text
rc11	text
rc12	text
rc13	text
rc14	text
rc15	text

Table 3 (f): Table Structure for table  
siii

Field	Type
Date	timestamp
password	varchar(10)
studID	varchar(10)
studName	varchar(55)
program	text
year	text
siii1	text
siii2	text
siii3	text
siii4	text
siii5	text
siii6	text
siii7	text
siii8	text
siii9	text
siii10	text
siii11	text
siii12	text
siii13	text
siii14	text
siii15	text
siii16	text
siii17	text
siii18	text
siii19	text
siii20	text
siii21	text
siii22	text
siii23	text
siii24	text
siii25	text
siii26	text
siii27	text
siii28	text

**Table 3 (g): Table Structure for table overall**

<b>Field</b>	<b>Type</b>
Date	timestamp
password	varchar(10)
numID	varchar(10)
studName	varchar(55)
program	text
year	text
deptovr	text
reason	text
overall	text
nameDept	text
reason2	text

## 4.9 Development of Online Survey Question Page

This process involves the development of the real online survey system. This development will use programming languages, JavaScript functions and interface design. The development of the survey page is a difficult process in completing this online survey. This is because, we need to establish the connection with the database so that when the users submit their survey answers, the answers will automatically be saved into the database. Some JavaScript functions were added into the programming in order to make the online survey function well like what has been plan and design before.

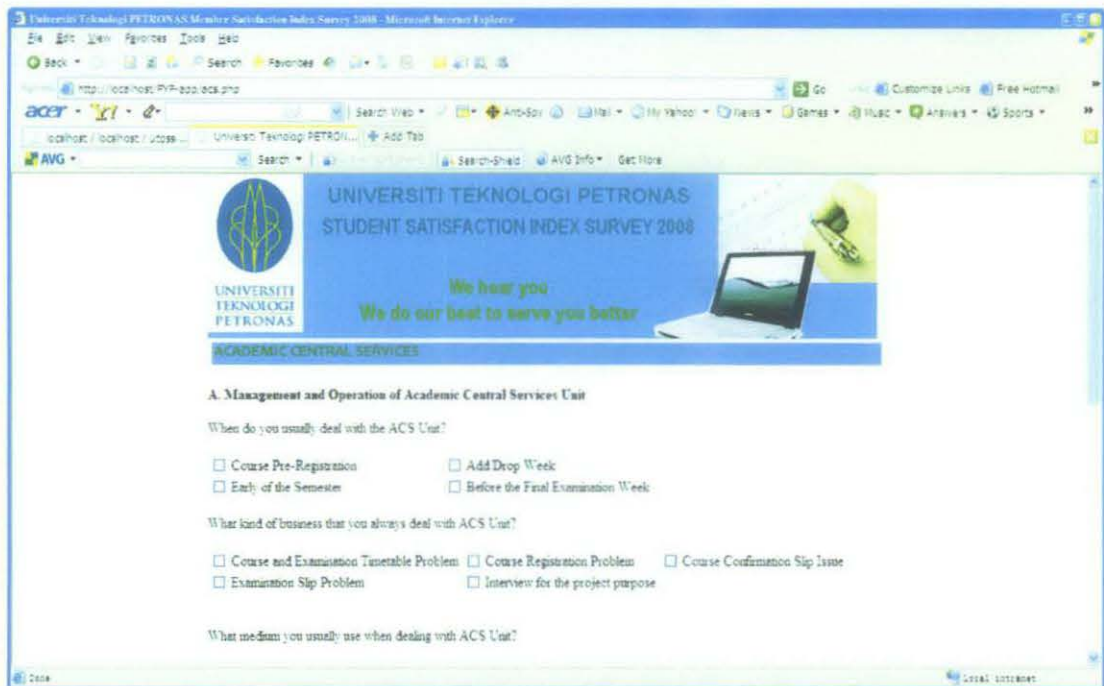


Figure 6: Question Page Sample

## 4.10 Development of Online Survey Result Page

This process involves the development of the result page for the online survey. Each time the respondent submits the answer, the answer will be saved into the database. By using the Fusion Charts component, the results will be retrieved from the database and will be presented in the form of the bar chart, pie chart and column chart. Figure 7(a) and Figure 7(b) below show the result page for one of the online survey question. Appendix C will show the sample programming code for the “Result Page”.

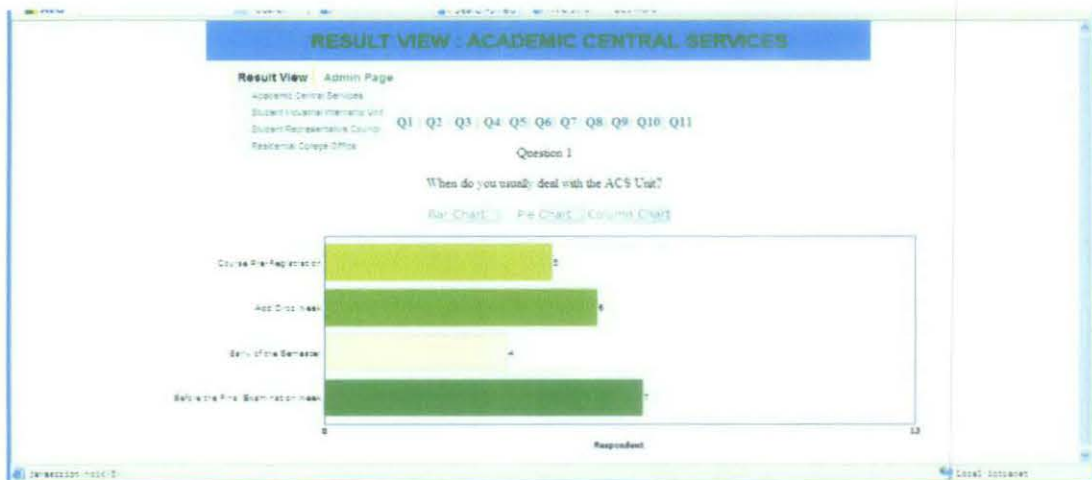


Figure 7(a): Result Page Sample

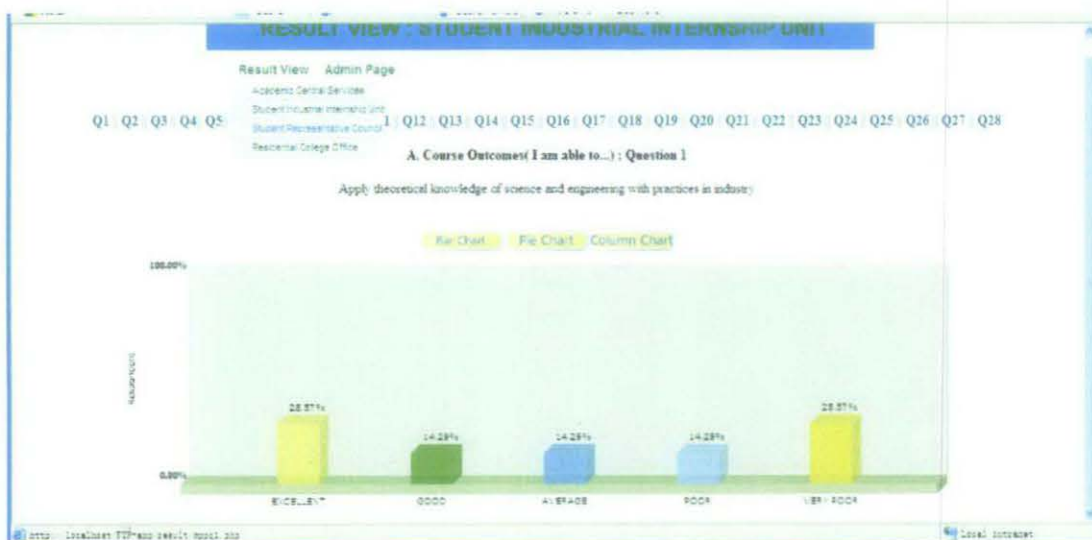


Figure 7(b): Result Page Sample

## **CHAPTER 5**

### **RECOMMENDATION AND CONCLUSION**

#### **5.0 RECOMMENDATION AND CONCLUSION**

For this project, there are some recommendations suggested.

- Instead of four departments, the survey should include all departments that available in UTP. Although some of students have not experienced the services provided by some department, at least they know that these departments exist in UTP and know their function.
- Instead of conducting a questionnaire to the student, questionnaire also should also be conducted with the lecturers for a broader perspective. This is because the views and opinions between lecturers and students are different.

By completing this online survey, here I hope that this kind of online survey should be implemented in the future to ease the department job. This is because, it is an easy, effective and efficient way to monitor results, get feedback from students since currently there is no system in place yet instead of always email to Rector. Beside that, this online survey is easy to use, simple and straightforward. The respondent can participate in the online survey from their own computer in their room as long as they have Intranet connection. By using some software component, the results page can be easy and simple to view.

As a conclusion, this UTP Student Satisfaction Index Survey 2008 is more focuses more on evaluating the services provided by specified departments in Universiti Teknologi PETRONAS (UTP). This is online survey and the target respondents for answering this survey are all UTP students since they are the one who most dealing with the services provided by these department.

## 6.0 REFERENCES

- [1] Dillman, D. A., Tortora, R. D., Conradt, J., & Bowker D. (1998). *Influence of plan vs. fancy design on response rates of Web surveys*. Presented at Joint Statistical Meetings, Dallas, Texas. August 1998. Retrieved December 2, 2002 from <http://survey.sesrc.wsu.edu/dillman/papers/asa98ppr.pdf>
- [2] Bowker, D., & Dillman, D. A. (2000, May). *An experimental evaluation of left and right oriented screens for Web questionnaires*. Paper presented at the 55th annual conference of American Association for Public Opinion Research. Portland, Oregon, May 18-21, 2000. Retrieved December 5, 2002 from <http://survey.sesrc.wsu.edu/dillman/papers/AAPORpaper00.pdf>
- [3] Don A. Dillman & Dennis Bowker. *The Web Questionnaire Challenge to Survey Methodologists*.
- [4] Dorine Andrews, Blair Nonnecke and Jennifer Preece(2002), *Conducting Research on the Internet : Online Survey Design, Development and Implementation Guide*.
- [5] [http://www.ifsm.umbc.edu/~preece/Papers/Online\\_survey\\_design\\_IJHCI04.pdf](http://www.ifsm.umbc.edu/~preece/Papers/Online_survey_design_IJHCI04.pdf)
- [6] Jean E. Fox, William Mockovak, Sylvia K. Fisher and Christine Rho. *Usability Issues Associated with Converting Establishment Surveys to Web-Based Data Collection*



## APPENDIX A: GANTT CHART FOR THE PROJECT TIMELINE

ID	Task Name	Start	Finish	Feb 2008		Mar 2008			Apr 2008				May 2008				Jun 2008				Jul 2008				Aug 2008				Sep 2008				Oct 2008				Nov 2008										
				17/2	24/2	2/3	9/3	16/3	23/3	30/3	6/4	13/4	20/4	27/4	4/5	11/5	18/5	25/5	1/6	8/6	15/6	22/6	29/6	6/7	13/7	20/7	27/7	3/8	10/8	17/8	24/8	31/8	7/9	14/9	21/9	28/9	5/10	12/10	19/10	26/10	2/11	9/11	16/11				
1	Project Planning	2/18/2008	2/25/2008	[Gantt bar]																																											
2	Information Gathering	2/26/2008	4/30/2008	[Gantt bar]																																											
3	System Flowchart and Diagram Design	4/4/2008	4/14/2008	[Gantt bar]																																											
4	Interface and Layout Design	4/15/2008	4/25/2008	[Gantt bar]																																											
5	Survey Question Created and Review	4/30/2008	6/3/2008	[Gantt bar]																																											
6	Database Design	6/9/2008	6/13/2008	[Gantt bar]																																											
7	Online Survey Question Page Develop	6/16/2008	8/15/2008	[Gantt bar]																																											
8	Online Survey Result Page Develop	7/28/2008	8/29/2008	[Gantt bar]																																											
9	System Testing and Maintenance	8/29/2008	9/29/2008	[Gantt bar]																																											
10	Seminar	9/18/2008	9/18/2008	[Gantt bar]																																											
11	Exhibition(Pre-EDX)	10/6/2008	10/6/2008	[Gantt bar]																																											
12	Final Report Submission	10/6/2008	10/6/2008	[Gantt bar]																																											
13	Final Report - Oral Presentation	10/20/2008	10/24/2008	[Gantt bar]																																											
14	Dissertation Submission	11/3/2008	11/3/2008	[Gantt bar]																																											





## APPENDIX B: ONLINE SURVEY QUESTIONNAIRES

### STUDENT INDUSTRIAL INTERNSHIP UNIT

#### A. Course Outcomes( I am able to...)

Please rate the following evaluation aspect statements	EXCELLENT	GOOD	AVERAGE	POOR	VERY POOR
[siiu1]Apply theoretical knowledge of science and engineering with practices in industry					
[siiu2]Acquire industry work culture					
[siiu3]practice team work including multidisciplinary team					
[siiu4]gain writing skills					
[siiu5]develop oral or presentation skills					
[siiu6]execute problem solving activities(identify problem, gathering information, analyse and solving)					
[siiu7]develop managerial skills(planning, monitoring, corrective measures, reporting)					
[siiu8]appreciate the social and ethical responsibility while executing the task					
[siiu9]attain business insightfulness					

[siii10]aspire for future education and career progression					
[siii11]The overall rating for my achievement is					

B. Management and Operation of SIIP	EXCELLENT	GOOD	AVERAGE	POOR	VERY POOR
[siii12] The briefings were sufficient and informative					
[siii13] The guidelines were comprehensive					
[siii14] The placement procedures were efficient					
[siii15] The visits by UTP supervisors were benefecial					
[siii16] The evaluation criteria were relevant					
[siii17] UTP supervisors were competent and experienced					

C. Student Industrial Internship Unit (SIIU)	EXCELLENT	GOOD	AVERAGE	POOR	VERY POOR
[siii18] SIIU staff were helpful					
[siii19] SIIU staff were always available when required					
[siii20] SIIU staff attended to arising issue promptly					
[siii21] SIIU was able to maintain a good rapport with students and HC					
[siii22] The overall rating of SIIU is					

D. Host Company	EXCELLENT	GOOD	AVERAGE	POOR	VERY POOR
[siii23] Training provided was related to my course					
[siii24] HC provided maximum opportunity for training					
[siii25] HC has a well-structured training program					
[siii26] HC provided real job experience					
[siii27] HC was supportive of the Internship program					
[siii28] The overall rating of the HC is					

### RESIDENTIAL COLLEGE OFFICE

Please rate the following evaluation aspect statements

A. Cafeteria	EXCELLENT	GOOD	AVERAGE	POOR	VERY POOR
[rc1] How do you rate the cleanliness of the cafeteria that available in UTP?					
[rc2] Rate the customer services provide by the cafeteria					
[rc3] Rate your satisfaction towards the foods serve by the cafeteria?					
[rc4] The price offered were reasonable and affordable					
[rc5] The overall rating for cafeteria is					

## B. Management and Operation of Residential College Office

[rc6] How often you go to the Residential College Office?

- Once a Week
- Once a Month
- Once for the whole semester
- More than once for the whole semester

[rc7] What medium you usually use when lodge the report about the hostel problem or RC staff services?

- Email to Head of RC or RC Staff
- Email directly to Rector
- Through MPP
- Go to the office
- Not lodge any report

[rc8] When you lodge a report to the Residential College Office, how long the time they take to response to your report?

- Less than one day
- One day

- More than one day
- One Week
- One Month
- No Response

[rc9] Did they do any follow up checking after the action taken?

[YES / NO]

Please rate the following evaluation aspect statements

C. Residential College Office	EXCELLENT	GOOD	AVERAGE	POOR	VERY POOR
[rc10] The room placement procedures were efficient					
[rc11] The RC staff were helpful					
[rc12] RC staff were always available when required					
[rc13] RC staff attended to arising issue promptly					
[rc14] RC was able to maintain a good rapport with students					
[rc15] The overall rating of RC is					

**ACADEMIC CENTRAL SERVICES UNIT**

**A. Management and Operation of Academic Central Services Unit**

[acs1] When do you usually deal with the ACS Unit?

Course Pre-Registration	Add/Drop Week	Early of the Semester	Before the Final Examination Week
-------------------------	---------------	-----------------------	-----------------------------------

[acs2] What kind of business that you always deal with ACS Unit?

Course and Examination Timetable Problem	Course Registration Problem	Course Confirmation Slip Issue
Examination Slip Problem	Interview for the project purpose	

[acs3] What medium you usually use when dealing with ACS Unit?

Email to ACS staff	Phone	Walk-in to the ACS Office
--------------------	-------	---------------------------

[acs4] When you lodge a report or deal with ACS Unit Staff, how long the time they take to response to your report?

Less than one day
One day
More than one day
One week
One Month
No Response

[acs5] Did they do any follow up checking after the action taken?

[YES / NO ]

**B. Academic Central Services Unit**

Please rate the following evaluation aspect statements	EXCELLENT	GOOD	AVERAGE	POOR	VERY POOR
[acs6] ACS Unit staff were helpful					



[acs7] ACS Unit staff concern with student problem that related to Academic					
[acs8] ACS Unit staff attended to arising student issue promptly					
[acs9] ACS Unit staff was able to maintain a good rapport with students, lectures and other UTP Staff					
[acs10] ACS Unit staff always update the current announcement to students					
[acs11] The overall rating for ACS Unit staff is					

**MAJLIS PERWAKILAN PELAJAR**

A. Management and Operation of Majlis Perwakilan Pelajar(MPP)

[ques1] Do you know all the MPP Exco and members?

[YES / NO ]

[ques2] What medium you usually use when dealing with MPP/UTP?

Email	Phone	Student Forum	Talk to MPP
-------	-------	---------------	-------------

[ques3] What kind of business that you always deal with MPP?

Student Welfare Issue	Academic Related Issue	Problem with the UTP Management
Residential College Related Issue	Interview for the project purpose	

[ques4] When you lodge a report to the MPP, how long the time they take to response to your report?

- Less than one day
- One Day
- More than One Day
- One Week
- One Month
- No Response

[ques5] Did they do any follow up checking after the action taken?

[YES / NO]

**B. Majlis Perwakilan Pelajar**

Please rate the following evaluation aspect statements	EXCELLENT	GOOD	AVERAGE	POOR	VERY POOR
[ques6] MPP member were helpful					

[ques7] MPP member concern with student welfare problem					
[ques8] MPP member attended to arising student issue promptly					
[ques9] MPP member was able to maintain a good rapport with students, lectures and other UTP Staff					
[ques10] MPP member always update the current announcement to students					
[ques11] The overall rating for MPP is					

## APPENDIX C: PROGRAMMING CODE FOR RESULT PAGE

```

<?php
    include ('../process/connection.php');

    $sqlquery = ("SELECT siiu17 FROM siiu");
    $result = mysql_query($sqlquery) or die(mysql_error());

    while($myrow = mysql_fetch_array($result))
    {
        $a++;           //count the number of entry
        for($j = 0; $j<5; $j++)
        {
            //count the answer...
            if ($siiu[$j]=="5") { $excel++; }
            if ($siiu[$j]=="4") { $good++; }
            if ($siiu[$j]=="3") { $avg++; }
            if ($siiu[$j]=="2") { $poor++; }
            if ($siiu[$j]=="1") { $veryp++; }
        }
    }
    //count the percentage
    $excel = $excel / $a * 100;
    $good = $good / $a * 100;
    $avg = $avg / $a * 100;
    $poor = $poor / $a * 100;
    $veryp = $veryp / $a * 100;

    //CREATE XML Data for Bar chart
    $strXMLData = "<graph bgcolor='FFFFFF'
                                xaxisname='Respondent'
                                hovercapbg='DEDEBE' hovercapborder='889E6D'
                                rotateNames='0'
                                animation='1' yAxisMaxValue='100' numberSuffix='%25'
                                numdivlines='0' divLineColor='000000' hDivLineAlpha='1'
                                decimalPrecision='2' showAlternateVGridColor='0'
                                AlternateVGridAlpha='0' AlternateVGridColor='000000'
                                canvasBorderThickness='1' canvasBorderColor='114B78'>\n";
    $strXMLData .= "<set name='EXCELLENT' color='33FF33' value='$excel' alpha='70'
renderAs='Column' />\n";
    $strXMLData .= "<set name='GOOD' color='FFFF00' value='$good' alpha='70' renderAs='Column'
/>\n";
    $strXMLData .= "<set name='AVERAGE' color='33FF33' value='$avg' alpha='70'
renderAs='Column' />\n";
    $strXMLData .= "<set name='POOR' color='FFFF00' value='$poor' alpha='70' renderAs='Column'
/>\n";
    $strXMLData .= "<set name='VERY POOR' color='33FF33' value='$veryp' alpha='70'
renderAs='Column' />\n";

    //Entire XML - concatenation
    echo $strXMLData .= "</graph>\n";
?>
<div align="center">
    <p>Question 17</p>
    <p><span class="content">UTP supervisors were competent and experienced </span></p>
</div>
<table width="800" border="0" align="center" cellpadding="0" cellspacing="0" bgcolor="#ffffff">
    <tr>
        <td>

```

```

        <div align="center" class="text">
        <object          classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000"
codebase="http://download.macromedia.com/pub/shockwave/cabs/flash/swflash.cab#version=6,0,0,0"
width="700" height="300" align viewastext>
        <param name="FlashVars" value="=&dataXML=<?php echo($strXMLData);?>">
        <param          name="movie"          value="../FYP-
app/charts/FC_2_3_Bar2D.swf?chartWidth=600&chartHeight=300">
        <param name="quality" value="high">
        <param name="bgcolor" value="FFFFFF">
        <embed src="../charts/FC_2_3_Bar2D.swf" flashvars="&dataXML=<?php echo($strXMLData);?>"
quality="high" bgcolor="000000" width="600" height="300" align type="application/x-shockwave-flash"
pluginspage="http://www.macromedia.com/go/getflashplayer">
        </object>
    </div>
    </td>
</tr>
</table>
<html>
<head>
<title>Universiti Teknologi PETRONAS Student Satisfaction Index Survey 2008</title>
</head>
<body>
</body>
</html>

```

## **APPENDIX D: Interview Question for department**

- a) What is the main function of this department?
- b) What other function provides by this department?
- c) How relationships with students and other UTP members?
- d) How often received complaint from student?(e.g in a month)
- e) How do the student complaint?
- f) The common complaints and feedbacks received from students?
- g) How these departments deal with this kind of complaints/ problem?
- h) Is there any follow up complaint from student after the department manages to solve their complaint/problem?
- i) Have this department done any survey to get the feedback from students and other UTP members?
- j) If yes to question 9
  - a) How many times?
  - b) How the department conducted that survey?
  - c) What kind of question usually asked?
  - d) How the students response to that survey?
- k) If No to question 9
  - a) Why not conducted the survey?
  - b) If given the opportunity to conduct an online survey, what kind of question this department wanted to ask?
  - c) Is it open ended question or multiple choice questions?

## **APPENDIX E: Interview Question for Student Representative Council**

- 1) What is the main function of this department?
- 2) What other function provides by this department?
- 3) How relationships with students and departments that available in UTP?
- 4) How often received complaint from student regarding the services provide by the departments that available in UTP?(e.g in a month)
- 5) How do the student complaint?
- 6) Which department receives many complaints from students?
- 7) As MPP members, how you manage the problem? Straight away go to that department or discuss with other MPP members before bring the complaint to the department?
- 8) Did MPP conduct any survey regarding this matter?
- 9) If yes to question 9
  - a) How many times?
  - b) How the MPP conducted that survey?
  - c) How the department cooperation with the survey?
  - d) How the students response to that survey?
- 10) If No to question 9
  - a) Why not conducted the survey?

## APPENDIX F: QUESTIONNAIRES

### GENERAL

1. Have you taking part in answering survey question conducted by some department in UTP? *If your answer is No, please proceed to question 3.*

Yes                       No

2. What type of survey question you answer?

Paper-Based Survey                       Email Survey

Online Survey

3. Have you ever heard about Online Survey?

Yes                       No

4. What do you understand about Online Survey?

\_\_\_\_\_

5. Do you have any experience answering Online Survey? *If your answer is No, please proceed to question 8.*

Yes                       No

6. If yes, how many times?

\_\_\_\_\_

7. What are the factor(s) that will encourage you to answer the online survey?

Responsibility                       Promotion

Lucky Draw                       Others: \_\_\_\_\_

8. If UTP is planning to conduct an online survey, are you willing to participate?

Yes                       No



## ONLINE SURVEY

9. What features you think should be include inside the Online Survey?

*(You can tick more than one answer)*

- |  |   |
|--|---|
| <input type="checkbox"/> Short question              | <input type="checkbox"/> Graphics, Multimedia                 |
| <input type="checkbox"/> Radio Button type of answer | <input type="checkbox"/> Colourful                            |
| <input type="checkbox"/> Checkbox Type of answer     | <input type="checkbox"/> Easy to navigate                     |
| <input type="checkbox"/> Faster loading page         | <input type="checkbox"/> Sentence used are easy to understand |
| <input type="checkbox"/> Others: _____               |   |

10. In your opinion, how long the time needed to answer the online survey?

- Less than 10 minutes
- 10 to 15 minutes
- 15 to 20 minutes

11. Do you care about the survey results?

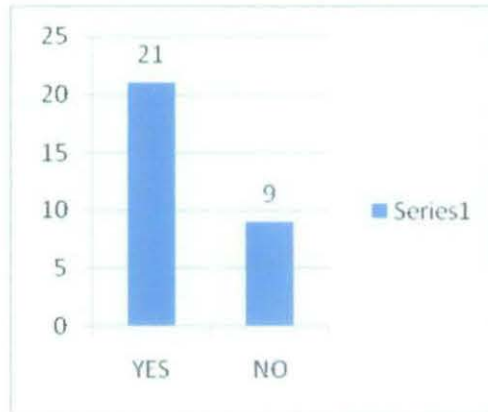
- Yes
- No

*Thank You for your cooperation*

## APPENDIX G: QUESTIONNAIRES RESULTS

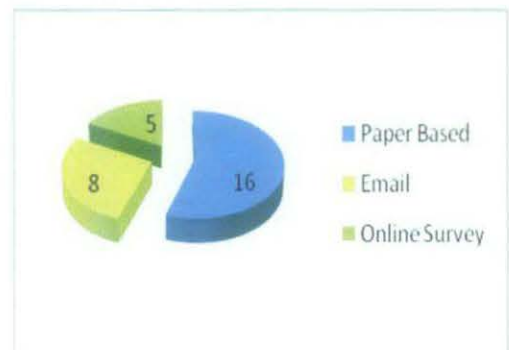
**QUESTION 1:** Have you taking part in answering survey question conducted by some department in UTP?

YES	NO
21	9



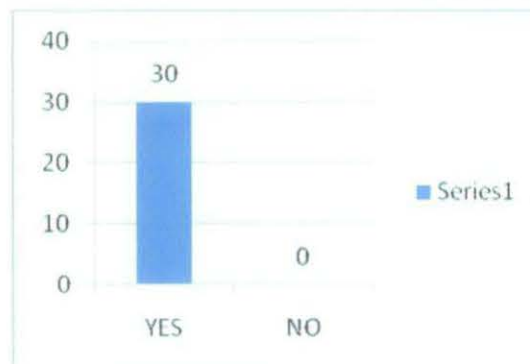
**Question 2:** What type of survey question you answer?

Paper Based	16
Email	8
Online Survey	5



**Question 3 :** Have you ever heard about Online Survey

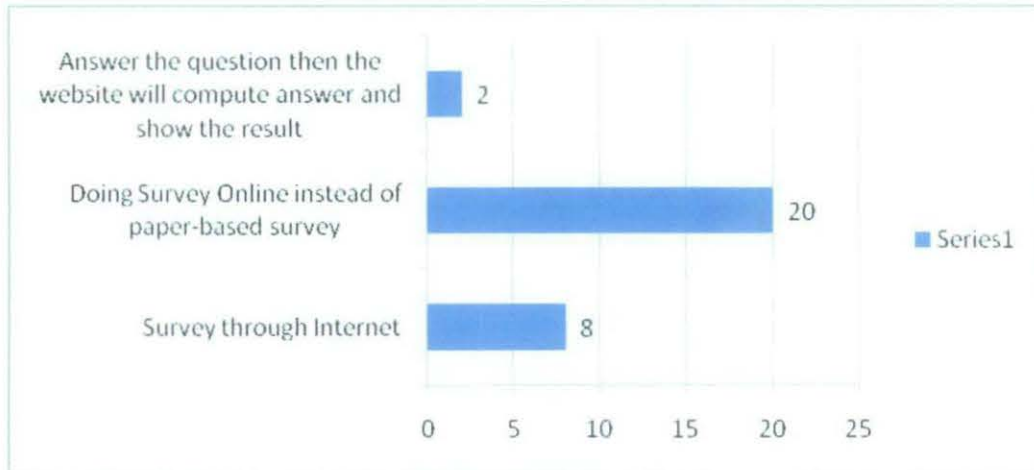
YES	30
-----	----



**Question 4 : What do you understand about Online Survey?**

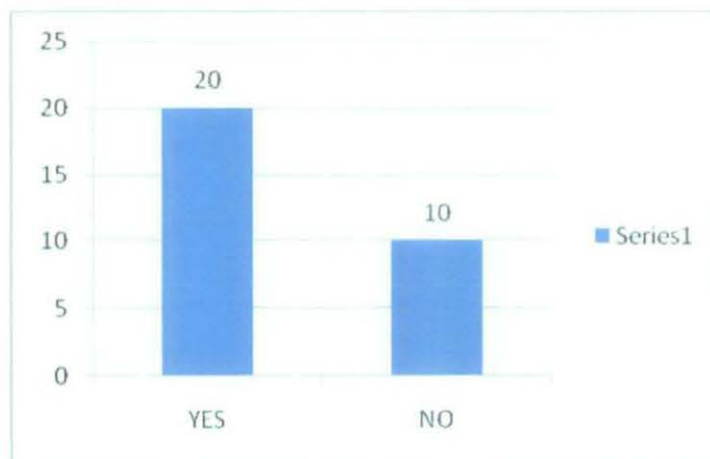
NO	0
----	---

Survey through Internet	8
Doing Survey Online instead of paper-based survey	20
Answer the question then the website will compute answer and show the result	2



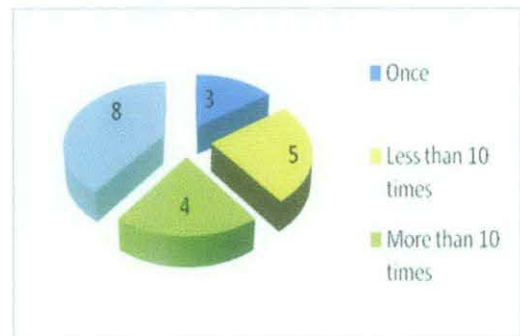
**Question 5 : Do you have any experience answering Online Survey? If your answer is No, please proceed to Question 8**

YES	20
NO	10



**Question 6 : If Yes, How many times?**

Once	3
Less than 10 times	5
More than 10 times	4
Cannot remember	8

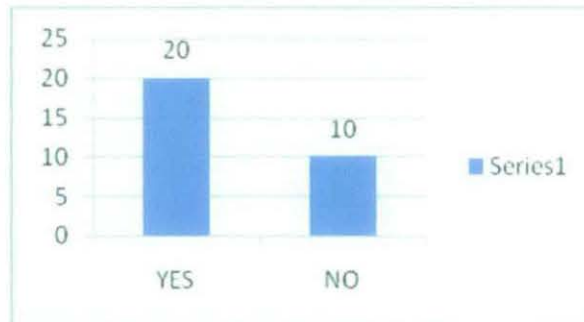


**Question 7 : What are the factor(s) that will encourage you to answer the online survey?**

Responsibility	10
Lucky Draw	6
Promotion	4
Other :Just for fun	4
Other: unpredictable Result	2
Other: Earn Money	1
Other: Interesting level of the questions given	5

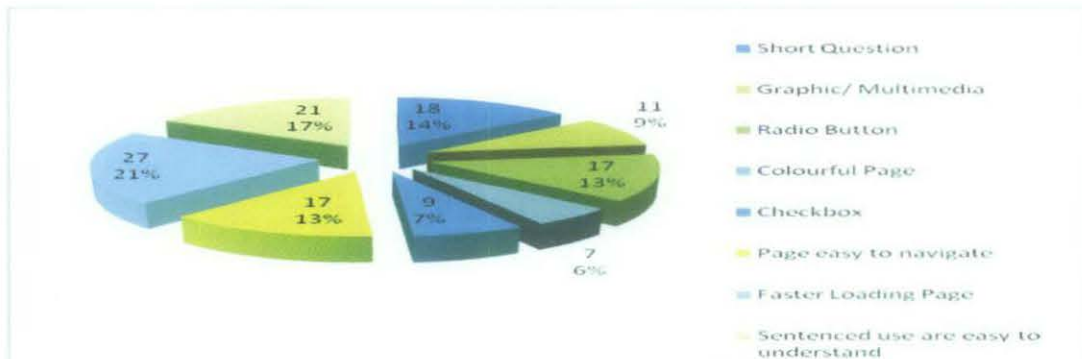
**Question 8:** If UTP is planning to conduct an online survey, are you willing to participate?

YES	20
NO	10



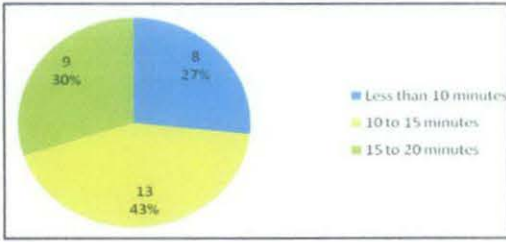
**Question 9:** What features you think should be include inside the Online Survey?

Short Question	18
Graphic/ Multimedia	11
Radio Button	17
Colourful Page	7
Checkbox	9
Page easy to navigate	17
Faster Loading Page	27
Sentenced use are easy to understand	21



**Question 10:** In your opinion, how long the time needed to answer the online survey?

Less than 10 minutes	8
10 to 15 minutes	13
15 to 20 minutes	9



**Question 11: Do you care about the survey results?**

YES	23
NO	7

