

## Chapter I

### **BACKGROUND OF THE PROBLEM**

#### **Introduction**

Computer technology is rapidly emerging nowadays; it became an important component that an educational institution needs. Technology can give efficiency to facilitate learning processes. Various technologies deliver different kinds of content and serves different purposes. Moreover, technology is often promoted as a solution for improving educational institutions (Waikato, 2014).

The manual process of evaluations for faculty is mostly used by schools and universities. It is time-consuming and takes a lot of processes to finish the evaluation.

Academic institutions value the quality of the teaching. It is very important to encourage the faculty members to understand the concept of effective teaching, to use those approaches, to develop new approaches of teaching, to use innovative development and learning methodology, and to implement leading-edge technology in the classroom where appropriate. (Serdyukov, 2017)

Faculty evaluation will help the administrators and as well as the teachers themselves to identify and support effective teaching and provide the state college community with information about student perception of the quality of instruction.

The system, JHCSC Web-Based Faculty Evaluation will improve the current system of the institution since we have now experienced the COVID-19 virus pandemic. This system will help faculty, evaluators, dean, and administration to lessen the paperwork and provide a real-time result of the evaluation for further analysis to provide constructive feedback for the teacher's professional growth.

#### **Project Context**

Every academic institution used to have a process of manual evaluation system. The Human Resource Officer or the staff of QA is tasked to conduct the manual system of evaluation and the staff of the research and development office is the one who will compute the result of the evaluation. The process takes time to accomplish all paper works to acquire the validity of the result. There are also instances that some documents are being misplaced.

The JHCSC Web-Based Faculty Evaluation will improve the current system of the institution. The whole process will be accomplished and conducted online thus eradicating the paper works and lessening the efforts exerted. Moreover, the evaluation will also reduce the cost of the said evaluation since it will no longer print questionnaires.

According to Mr. Chris John C. Cogalito, one of the staff of JHCSC-Dumingag Campus Human Resource Officer, "For me, when we say manual, it's a time-consuming and a long process. From the printing of forms, distributing, and scanning. If the process is still paper-based, the data or the results will not be received quickly. It's better if the evaluation will be automated. They will just need to enter the data directly into the system. It is more convenient, fast, stable, and the result is accurate unlike in traditional. And since we're facing a big crisis right now which is called "COVID-19", the online process can be a big help in the new normal. Accessing of records and evaluations can be processed online using the automated system." These were exactly his words when we come to interview him online about the problem of the manual process of evaluation and what can he say about the replacement of traditional evaluation with an automated system.

### **Purpose and Description**

The purpose of the study is to develop, evaluate and implement a system that will help the institution in providing a system thru developing JHCSC Web-Based Faculty Evaluation. The project presents a new aspect of developing the study of evaluating faculty.

The administrator can input, post important announcements, and manage students, deans, teachers, evaluation questions, and the process of evaluation. The process of this evaluation system allows the respondents to view the announcements, log in and choose a category in evaluating a teacher's performance. The respondents can also identify the course and the name of the teachers they want to evaluate. The instructor can view his/her result. The dean can also view the instructor's evaluation results that are under his/her department. After the evaluation, the system will display the summary of the result and other required reports.

## **Objectives of the Study**

The main objective of this study is to design and develop a JHCSC Web-Based Faculty Evaluation that will replace the manual process of evaluation for academic institutions that can be access anytime and anywhere as long as the internet connection is available.

The specific objectives of the study were as follows:

1. To create a module for evaluation such as self, peer, supervisor, and students.
2. To calculate and print the results of the evaluation.
3. To store, and track evaluation records.

## **Scope and Limitations of the Study**

The study is about the implementation of the JHCSC Web-Based Faculty Evaluation. The implementation of the system is intended for the management to answer their problems concerning their faculty evaluation process. The evaluators can assess their teachers easily by using gadgets or computers. The system will automatically rate scores of the finalist which is based on the answers of the evaluators in the question phase of the system. The evaluators will be able to access the system by just logging in to their account using their username and password, then click the on-going request, and simply view the name of instructors who requested an evaluation under his/her subjects. The evaluators can also select whether they are evaluating as a peer, supervisor, or self and afterward, they can proceed to the question phase of the system. The admin and the concerned facilities can see the results. After the evaluation, the system will display the summary of the result and other required reports.

The system can be used by JHCSC faculty and staff only. The use of this website will only be once every semester. The user will also remember that the website cannot function if there is no internet connection.

## **Significance of the Study**

JHCSC Web-Based Faculty Evaluation will be significant to the following:

**Departments and Colleges.** It is easy for the department to manage their evaluation by using the system. At the end of the evaluation, the concerned facilities can easily view the evaluation result, print the summary of result and for the instructors, they will know which aspects of teaching they lack.

**The Evaluators.** The evaluator will no longer make use of the manual process of evaluating his/her subject and will lessen his/her workload by cutting down the time on evaluating faculty members and in creating a schedule of evaluations and preparations.

**The Researchers.** Allows the researchers to have the opportunity of constructing a JHCSC Web-Based Faculty Evaluation for the academic institution. It helps the researcher enhance their skills in java programming, web design, and development.

**Future Researchers.** This study can be further enhanced by future researchers and developers that will conduct the same type of study that implements a JHCSC Web-Based Faculty Evaluation.

### **Definition of Terms**

The following are the definition of terms used in this project work including acronyms and their meaning:

**Administrator.** A person who manages a computer network or system network administrators. They maintain information systems and networks, upgrade and install new hardware and software, and perform troubleshooting. They also back up data and manage network security.

**Evaluation.** Evaluation focuses on grades and might reflect classroom components other than course content and mastery level. An evaluation can be used as a final review to gauge the quality of instruction.

**Synchronous.** Is an adjective that's defined as "occurring at the same time; coinciding in time; contemporaneous; simultaneous."

**Web design.** Is an umbrella term that describes the process of creating a website.

## Chapter II

### REVIEW OF RELATED STUDIES AND SYSTEM

This chapter introduces the technical background, hardware specification, software specifications, programming environment, related literature, and related studies (foreign and local studies), a synthesis that guided the researchers in understanding and developing the system.

#### Technical Background

Presently, JHCSC-Dumingag Campus is still using the manual system in evaluating faculty performance. Forms are used to track the transaction of each faculty which are kept in a drawer or cabinet for safekeeping. The system will be designed using a client-server technology as well as a database management system like MySQL. The system can be used and accessible by the admin, instructors, and students.

The new system is beneficial to the school staff, evaluators which consume less time in evaluating the faculty performance. The instructors could learn how to collect and organize evaluative information regarding their competence and teaching experience that would help them to win a teaching job, to use evaluation (feedback to improve their teaching performance) through the JHCSC Web-Based Faculty Evaluation. Thus, the system will automate the process of evaluating the performance of the faculty to identify the needs of the faculty members and students. The performance evaluation desires to build relationships among students, faculty members, and administration based on trust, mutual commitment, and team effort.

#### Hardware Specification

In the development JHCSC Web-Based Faculty Evaluation, the following are the required hardware specifications.

##### 1. Internet



Figure 2.1 **Internet**

Since the system is web-based, it needs an internet connection for the system to run, and we can access the website in devices which uses internet.

## 2. Smart Devices



Figure 2.2 **Smart Devices**

We can access the system through using gadgets (computer/laptop, smartphones and tablets).

## Software Specification

JHCSC Web-Based Faculty Evaluation uses Adobe Dreamweaver and Visual Studio Code for the development of a web-based platform. For the database of the system, we used MySQL. MySQL was used for manipulating database records which store all data of instructors and students. This software was all part of the JHCSC Web-Based Faculty Evaluation.

## Programming Environment

Visual Studio is used to develop the admin and client platform since this is the preferred software in coding PHP programming language. Moreover, both platforms uses the MySQL as the database of the system.

The proponents also use PHP, JavaScript, and CSS in designing the JHCSC Web-Based Faculty Evaluation.

## Related Studies

### Local

In the study conducted in Apayao State College about Web-Based Faculty Evaluation System, they have developed a system that will improve the accuracy of the report generated and eliminate issues such as the possibility of manipulating the evaluation result. The online method of collecting teaching evaluations offers numerous advantages over the in-class method. However, with the status of the

current evaluation in Apayao State College that still exists, using manual process routinely repeats the job especially that the evaluation is conducted twice a year. The routine of repeated conduct is tiring. It is a waste of time and that the consumed bond paper and toners in a year continually increase.

The faculty Evaluation System for Our Lady of Fatima University provides a list of faculty members where the administrator is the one who's going to conduct an evaluation in the laboratory where the students will evaluate the faculty members. It's a web-based procedure where all the Students can evaluate at the same time so it's going to be easy work for them, after they evaluate; it's automatically saved in the database where the Admin has the right to check the results of the evaluation where they can also print the final result.

According to Mendoza (2004), who studied at the University of Santo Thomas, in many universities that use manual systems that shade their papers to evaluate their professor now, the researchers create a new evaluation system at the end of the semester. The students will evaluate to their respective colleges and laboratories to reduce the time of the evaluation, each student will give only an estimated time to each student for web-based evaluation. The web-based system needs to provide an email and password to maintain security and not repeatedly evaluate. The students will evaluate based on their criteria in teaching performance. Systems reduce cost and have more efficient evaluating systems. Because the system is computerized the evaluators will reduce the errors in the system.

According to Tomas U. Santos (2008), gone are the times when students shade cards to evaluate their professors, as the new evaluation will be introduced. Evaluators, composed of students and faculty members' superiors, will occupy computer laboratories within their respective faculties and colleges at a given time for the evaluation. They will then be given a username and a password to be able to log in to the system. Just like in the old system, evaluators assess a faculty member's performance based on different criteria with ratings from one (very poor) to five (very good). Once done, one will be able to view the results of one's evaluation of a faculty member. The University decided to shift from manual to computerize evaluation because the latter is more "cost-efficient and cost-effective" said Prof. Jaime Dolera, Jr., Administrator for Software Development and Data Processing. By implementing

the system, it will give way to easy collection and more accurate data analysis in lesser time. Accurate computation of results is expected since the program tabulates the data. This lessens the chances of human error. The new system is better because confidentiality is maintained. As soon as the evaluators finish with the evaluation, the information they have encoded will be sent to a database which only the Office of the Vice-Rector for Academic Affairs (OVRAA) has access. Not everyone can view the overall results.

### **Foreign**

Information has become rapidly accessible because of technological advancements. The computer environment is employed so as to ensure a faster flow of information in the rapidly developing world. If we take universities as the most important institutions to inform societies, it becomes clear that universities should also be the platform where information should be utilized most efficiently today (Geymen,2012).

According to Chambers DW. J. (1997), each dental school will fashion on its own faculty evaluation system. Faculty evaluation is a scientific process, or at least one capable of being greatly improved by rigorous, empirical study, which has yet to be performed. The exact form of evaluation developed at each school will likely be unique, since it will depend on the institution's resources, size, funding base, academic affiliation, and the personal preferences of concerned individuals. The degree of success or failure of an evaluation system will depend on how the chosen combination of purposes, sources, objects of evaluation, and implementation strategy serves the needs of the school and its personnel.

The Computerized Faculty Evaluation System of the dental school will give way to easy collection and more accurate data analysis of faculty evaluation in lesser time. This would be a paperless process in which the evaluator (students, co-teacher, and supervisor) will use the computer and the system to evaluate the teacher. The Administrator can create, update and delete the student information, faculty information, and the subjects. The Administrator can revise and update the list of questions. The Administrator can also generate and print results of faculty evaluation. The students can log in to their account and rate or evaluate the teacher. The students



can also post a comment to their teachers. The Teachers or Faculty can log in to their account and view their results and view comments.

The web-based evaluation took less time because the students can immediately submit their responses electronically (Kasiar, Schroeder, and Holstad (2002). In the traditional system, they have to complete the evaluation and then physically return them to the professor in charge. The staff workload was decreased with the web-based system. The electronic system can lessen the job of the staff. Like for example, the process of photocopying the instruments, distributing the tools to the students takes the staff's time. Unlike electronic systems, it is simple to supervise. The reports are based on real-time. Another advantage is being paperless. Though there are works associated with the web design especially the data by the input process, the process that is hardcoded and the generated reports will print out correctly. These difficulties are encountered only during the duration of the development but after completing, the system will facilitate its operation (Dommeyer et al., 2004).

### **Synthesis**

The system is related to the study of Our Lady of Fatima University which is titled "Faculty Evaluation System". Based on the literature and studies reviewed, it's slightly the same as our system which is the JHCSC Web-Based Faculty Evaluation. Its concern is improving the existing system of evaluation to facilitate efficient conduct and to replace the traditional system of paper-based evaluation.

Also, the system improves the ease of retrieval and access of data. Unlike paper-based evaluation, that must be searched manually which is very time-consuming; and the difficulty in handling and record-keeping. The web-based evaluation can quickly retrieve electronic files using keywords like the name of the faculty or the student, no matter where the document is located. The only difference of our system and the system of Our Lady of Fatima University is that in their system if a teacher request an evaluation, all the students can evaluate. Unlike in our system, only the students who are enrolled under the subject held by the instructor can evaluate.

## DESIGN AND METHODOLOGY

The design and development of the system followed the waterfall model as shown in Figure 3 which also found to be the best model suited for the system. It was found out by the researchers that waterfall model sequences the activities logically starting with the requirements definition and progressing through increasingly precise processes to implementation, when the software is placed in to operation and maintained. Each step has corresponding verification and validation; requirements are validated, architectures are verified against requirements, implementation is tested and the operational system is revalidated through its use. Each stage in this idealized process is relatively comprehensive and correct description of the ultimate system, generated from previous stage's results.

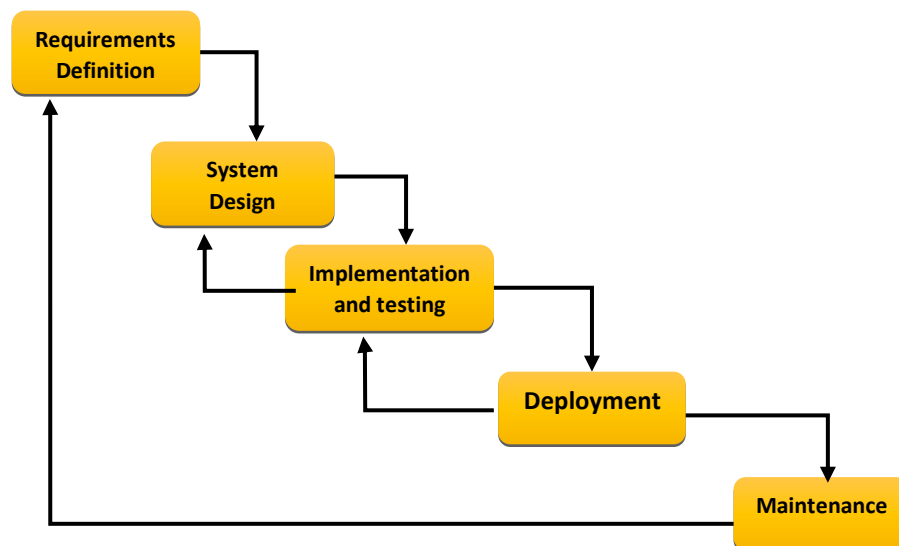


Figure 3.1 Waterfall Model

### Requirements Definition

The first phase will be the requirements definition of the developed system. The researchers interviewed JHCSC-Dumingag Campus faculty and staff to gather information required and necessary for the development of the system. The researchers will also ask about the problems that the teachers and students are facing in using manual evaluation.

## **System Design**

After the conduct of the requirements documentation, the researchers found out that web-based platform are very much suited to address the challenges of the existing system. Thus, researchers used Visual Studio Code for the development of the system which was named as Web-Based Evaluation System of JHCSC-Dumingag Campus. This system used MySQL as a database which is best suited since this is readily available in any online web hosting. The system was designed using the HTML5 which is very flexible regardless of what gadget will be used by the end-users in accessing the system.

## **Implementation and Testing**

The researchers will present and demonstrate the system to the administration of the institution for the implementation and testing to ensure the functionality of the system during the deployment. In this phase, all features of the system will be thoroughly tested to find any possible bugs and errors. The researchers will conduct a simulation of the assessment process using the system and test any possible conditions that could possibly affect the accessibility, reliability and functionality of the system.

## **Deployment**

The researchers and IT head of JHCSC will upload the system to the institution's webhosting to completely deploy the system after the approval of the school board. The login credentials of the system administrator and necessary documents including the manual of the system will be turned over to the school. The school can then utilize the system for the teachers' evaluation.

## **Maintenance**

The implementation of the developed system requires monitoring of the stability of the system in various load conditions as the number of users and data in database increases. This includes the training of end-users on how to efficiently use the system. The maintenance phase of the system is where the system is running live and is actually being used by the users. This requires the maintenance team to address concerns raised by the students, teachers or the system administrators. This can be concerned with bugs in the system, security issues or issues that have only come to light when the system will be implemented.

## **Requirement Documentation**

The development of the system as portrayed in figure 3.1, started in a requirements definition wherein the researchers investigate through research about the existing system. This includes the current challenges and problems encountered by the teachers and students while implementing this one that has to be addressed by the developed system. The researchers also conducted online research of existing systems being used by both local and foreign, related, and published studies, and similar systems.

## **Existing System**

The present scenario of the evaluation system of JHCSC-Dumingag Campus follows the usual practice implemented by most of the schools. A teacher will request for an evaluation to the school administrator every year. Upon the approval, the teacher will print numerous copies of an evaluation form to be distributed to the students. Thereafter, the teacher will collect the forms and to be checked by the staff. It takes days for them to finish the checking and recording of the forms. Subsequently, the staff will encode the result of the evaluation in a formatted Microsoft Excel to get the required data for analysis. These results are needed to print the final forms of the evaluation to be presented afterwards to the teacher and administration.

With the mentioned scenarios, the researchers aim to lessen the burden of the teachers and students by simplifying and automating this blended learning system through the developed JHCSC Web-Based Faculty Evaluation.

## **Developed System**

The system will require both students and teachers to create an account in order to access the features of the system. The administrator will then verify and approve the accounted account. Upon the approval, both teachers and students can then use the credentials to login in the system. The teachers can then request for an evaluation to be approved by the administrator. After the approval of the evaluation, all of the registered account will be notified about the active evaluation requests. On the other hand, the students' account is only limited to viewing and rating of the teachers' assessment form. These ratings will be stored in the database to be consolidated by designed algorithm of the system for the evaluation result.

The administrator's account is responsible in managing evaluations including accepting, declining and closing of evaluation requests. After closing the active requests, teachers can then ask for a copy of the evaluation as well as the various forms required as an attachment to the reports. In addition, administrator is also tasked to publish important announcements as these will be displayed in the newsfeed to registered accounts upon logging in. Figure 3.2 shows the flow of the data of the existing system.

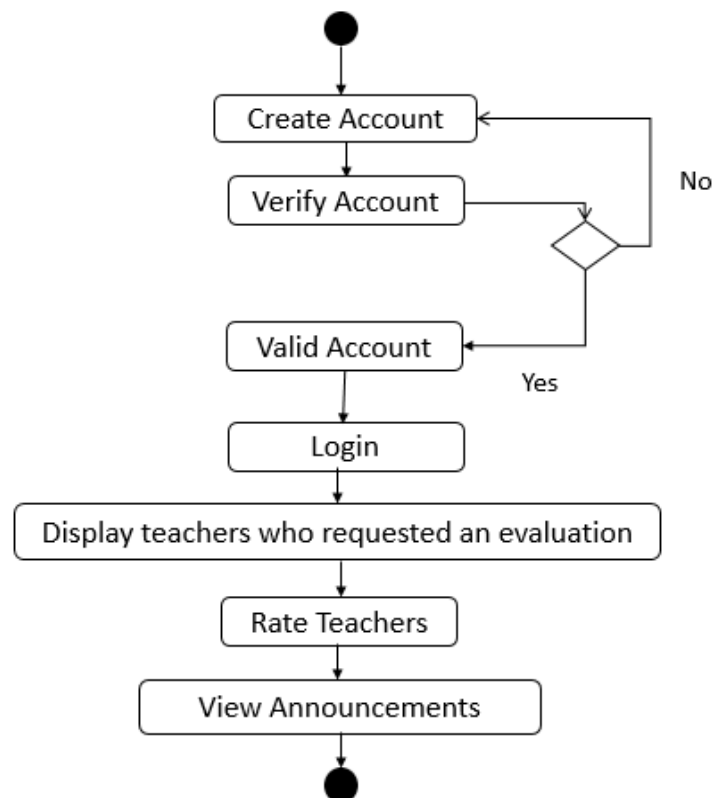


Figure 3.2 **Activity Diagram of Student**

The student must create first an account, and then the created account will be verified by the administrator whether the account is valid or invalid. If the account is valid, the student can access the system, rate teacher's, evaluation form, and view important announcement that is posted by the administrator.

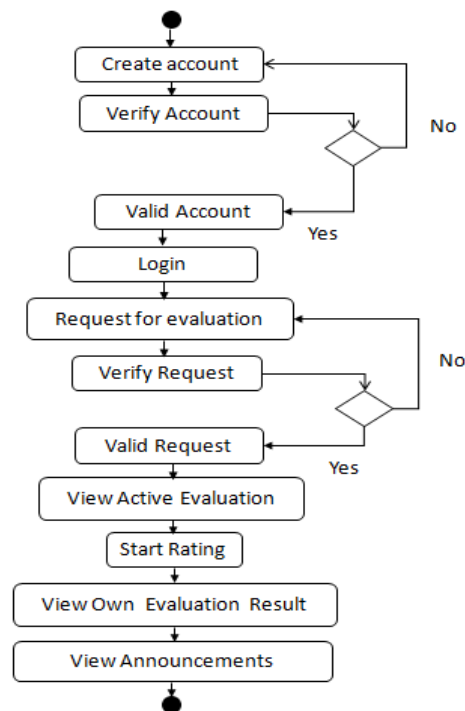


Figure 3.2 **Activity Diagram of Teacher**

The teacher must create first an account, and then the created account will be verified by the administrator whether the account is valid or invalid. If the account is valid, the teacher can log in into the system, and request evaluation. The admin will verify the requested evaluation whether it will be approved or not. If approved, the evaluators can start rating. Moreover, the teacher can view active evaluation, and can view important announcement that is posted by the administrator.

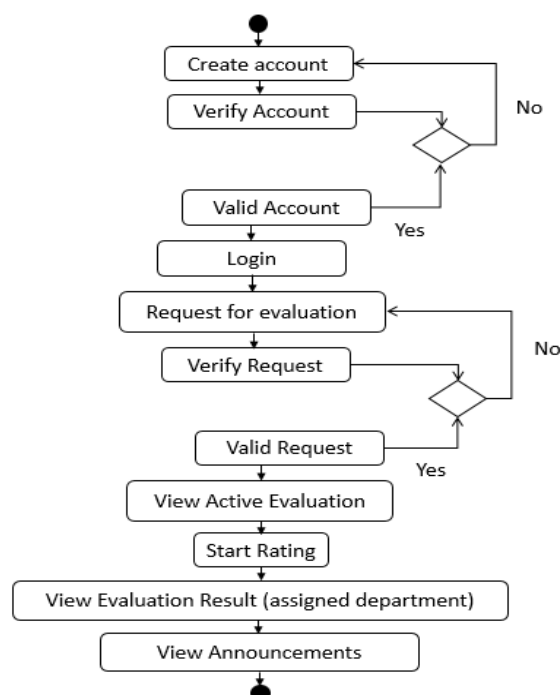


Figure 3.2 **Activity Diagram of Dean**

The dean must create first an account, and then the created account will be verified by the administrator whether the account is valid or invalid. If the account is valid, the teacher can log in into the system, and request evaluation. The admin will verify the requested evaluation whether it will be approved or not. If approved, the evaluators can start rating. Moreover, the teacher can view active evaluation, view evaluation result in his/her assigned department and can view important announcement.

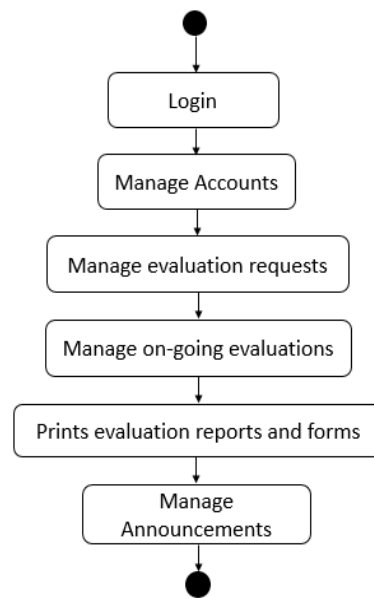


Figure 3.2 **Activity Diagram of Administrator**

The administrator is responsible in managing the account of both teachers and students. Manage the evaluation data and requests. Manage the on-going requests. Manage the announcements. And after the evaluation, the admin will print the evaluation reports and forms.

### **System Design, Product, and/or Processes**

The JHCSC Web-Based Faculty Evaluation will simplify the existing process of the evaluation of JHCSC. Teachers will no longer print a huge number of evaluation forms saving the time and expenses in printing since these can be done paperless through the system. Students will have an individual account that can be used in accessing these assessment forms. The deans' and teachers' accounts are very much the same given that both has access to request for an evaluation of any cycle and year. However, teachers' account can only view his/her evaluation result while the deans' account can view all the teachers' evaluation result under him/her. Thus, face-to-face interaction from distribution to retrieval can be eliminated reducing the

risk of CoVid19 infection. Furthermore, results can be calculated automatically using the algorithm designed by the researchers to increase the accuracy of the evaluation.

The account has its dashboard that provides a summary of the evaluations, available forms for teachers requesting for evaluation, and finished evaluation. The entire system has three types of accounts: administrator, dean, evaluators (students and teachers) as shown in Figure 3.3.

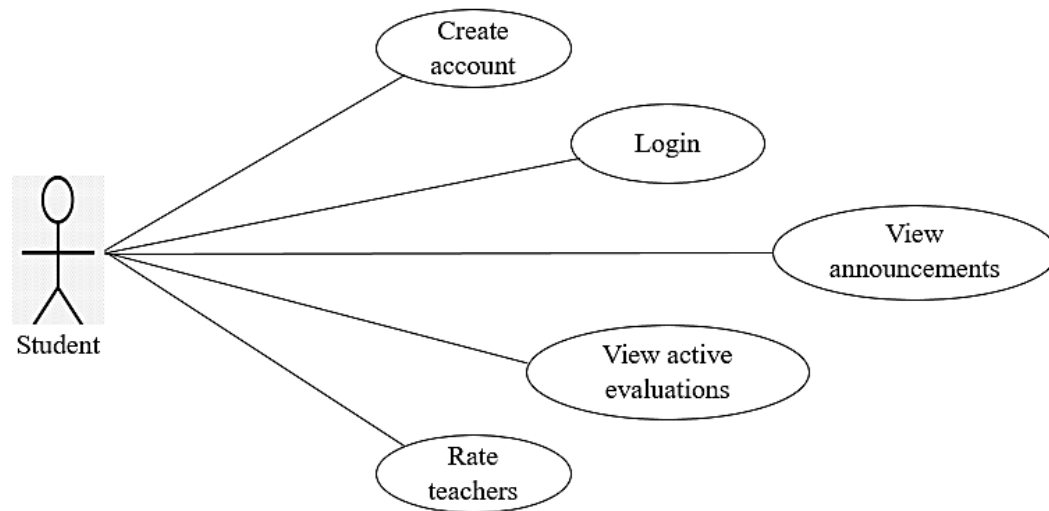


Figure 3.3 **Use Case Diagram of the Student**

The students must create an account first, then the created account will be managed by the administrator whether it will be approved or not. After the account verification, the student can view announcements and request evaluation of the instructor.

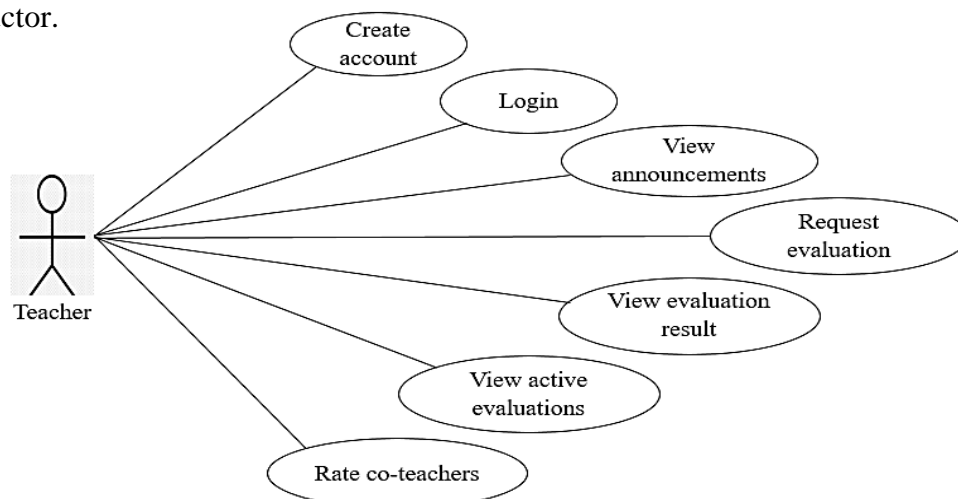


Figure 3.3 **Use Case Diagram of the Teacher**

The teacher must fill-in information to register an account, then the created account will be managed by the administrator whether it will be approved or not.



After the approval of the admin, the teacher can view announcements, request an evaluation and he/she can rate his/her co-teacher

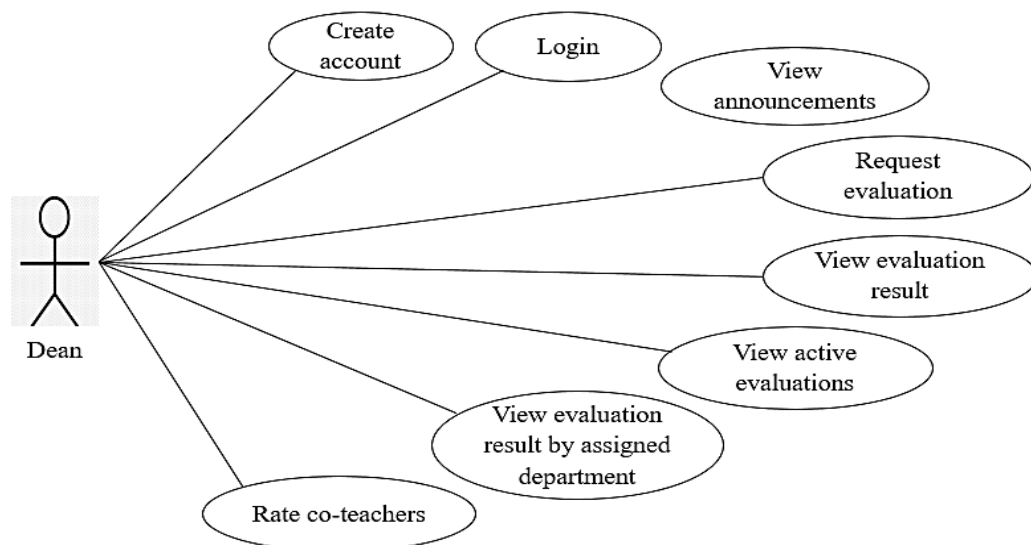


Figure 3.3 **Use Case Diagram of the Dean**

The dean must create an account first before logging in to the system. After that, the dean can now request for an evaluation, view active evaluation, rate teachers and view announcements. The dean can also access the evaluation result of his/her assigned department.

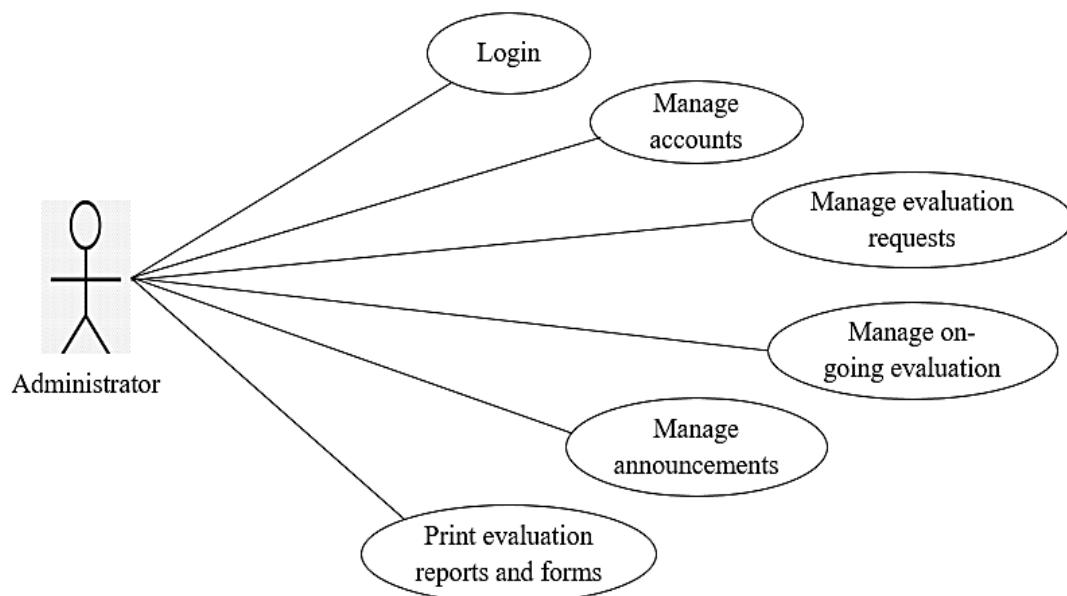


Figure 3.3 **Use Case Diagram of the Administrator**

The Administrator is responsible in managing the students, instructor, and dean's account. Controls the evaluation data, announcements, and display of evaluation result. The admin is the one who assign dean in every department.

## Chapter IV

### DEVELOPMENT, TESTING AND IMPLEMENTATION

#### Description of the System

The system has automated features of the traditional evaluation process which the school currently is using. It was designed to have four (4) types of users: system administrator, dean, teachers and students.

System administrator is tasked to neither approve nor disapprove the registered accounts. It has also the permission to accept evaluation requests, close on-going requests and print evaluation results.

Dean is an account similar to teacher other than a permission to view results of the teachers under him/her.

Teacher's account is limited to request for an evaluation for a specific cycle and year. This account can also rate himself/herself and his/her co-teacher.

Student's account is limited only in evaluating teachers who are handling his/her subjects.

#### Gantt Chart

In a Gantt Chart Table 4.1 show the working schedule of the researchers. During the development of the system, researchers performed a variety of task. The bar indicates the length work in weeks and the task name of which are: requirement gathering, analysis, design, coding, testing, and implementation in the diagram below.

|                       | January |    |    |    | February |    |    |    | March |    |    |    | April |    |    |    | May |    |
|-----------------------|---------|----|----|----|----------|----|----|----|-------|----|----|----|-------|----|----|----|-----|----|
| Requirement Gathering |         |    |    |    |          |    |    |    |       |    |    |    |       |    |    |    |     |    |
| Analysis              |         |    |    |    |          |    |    |    |       |    |    |    |       |    |    |    |     |    |
| Design                |         |    |    |    |          |    |    |    |       |    |    |    |       |    |    |    |     |    |
| Coding                |         |    |    |    |          |    |    |    |       |    |    |    |       |    |    |    |     |    |
| Testing               |         |    |    |    |          |    |    |    |       |    |    |    |       |    |    |    |     |    |
| Implementation        |         |    |    |    |          |    |    |    |       |    |    |    |       |    |    |    |     |    |
|                       | W1      | W2 | W3 | W4 | W1       | W2 | W3 | W4 | W1    | W2 | W3 | W4 | W1    | W2 | W3 | W4 | W1  | W2 |

Table 4.1 **Gantt Chart**

## Development

The system took five (5) months to finish as shown in table 4.1. During the requirement gathering, researchers interviewed the faculty and staff of JHCSC-Dumingag Campus about the existing process of evaluation of teachers implemented by the school. Necessary data such as forms, result computation and proposed simplified process was collected by the researchers. This also includes the challenges faced by the school while implementing the manual process and an opportunity to be addressed by the system. On the other hand, possible weaknesses of the system were also discussed by the researchers and staff.

The researchers then designed an algorithm for different types of users including the permissions granted to them. In addition, due to a rapid increase of technology and gadgets, the researchers design a graphical user interface that is flexible to any gadgets available in the market.

Home page contains the following information regarding with the school: Home, About Us, Courses Offered, Login, and Register. Basically, this page highlights information about the school.



Figure 4.2.1 Home Page

System administrator's module showing features available only for this type of account. This includes the information concerning the implementation and process of online evaluation.

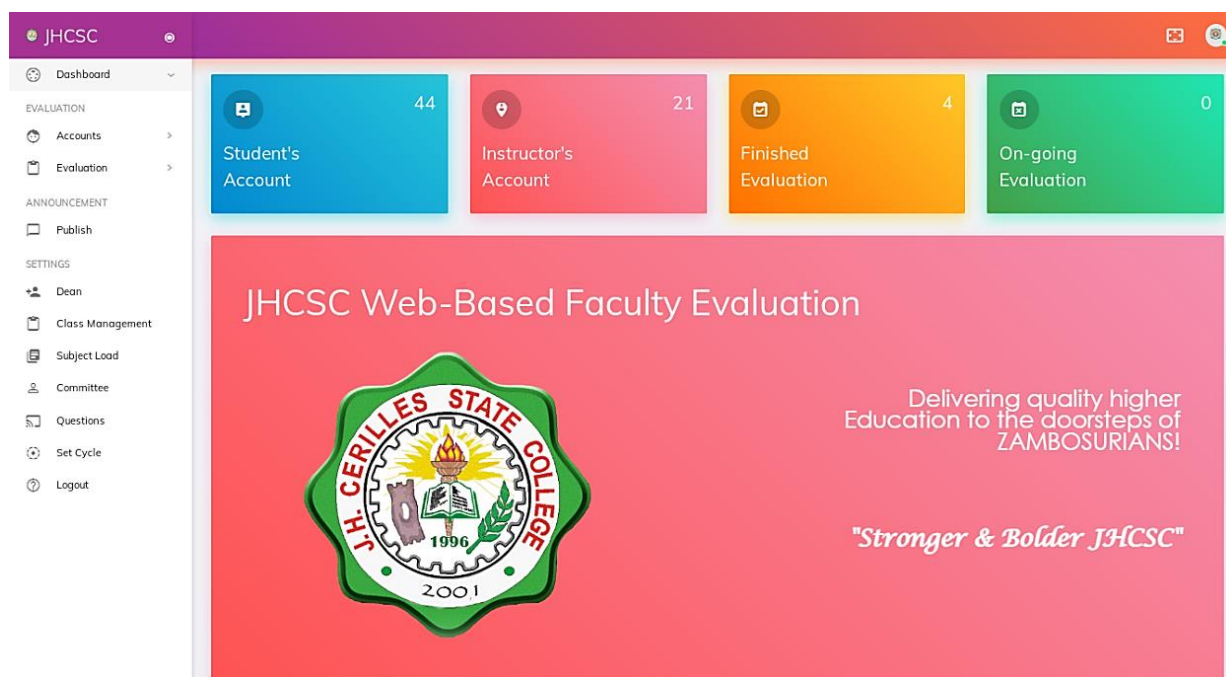


Figure 4.2.2 **System administrator's module**

Teachers' Module displays the features exclusive for teacher's account. This includes the request for an evaluation, on-going requests and result of his/her evaluation.

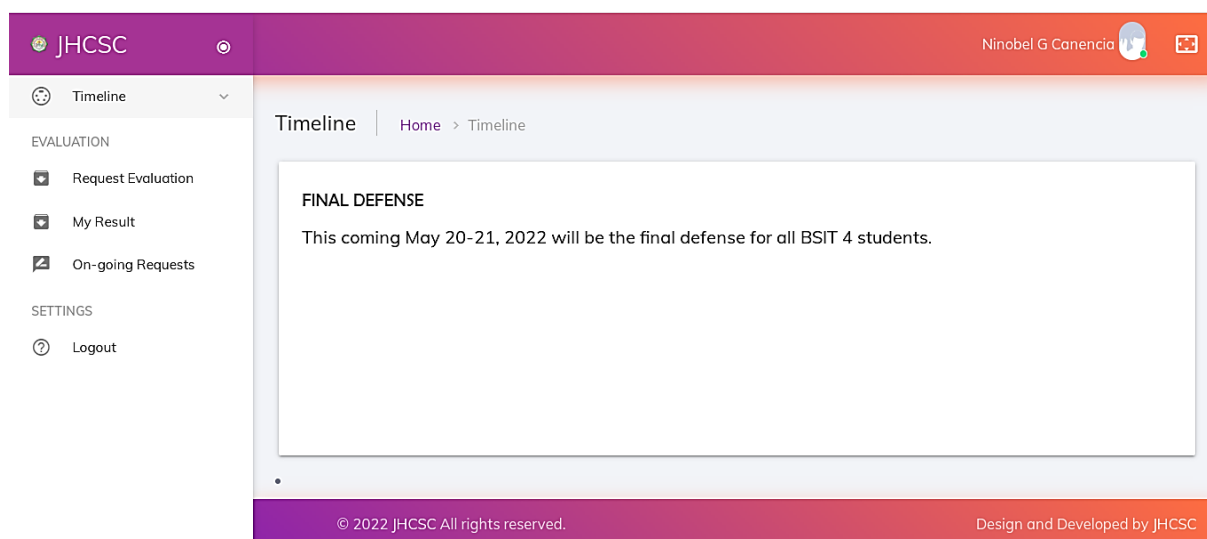


Figure 4.2.3 **Teachers' module**

This module shows the features of a dean's account which can also view the instructors' evaluation result under him/her.

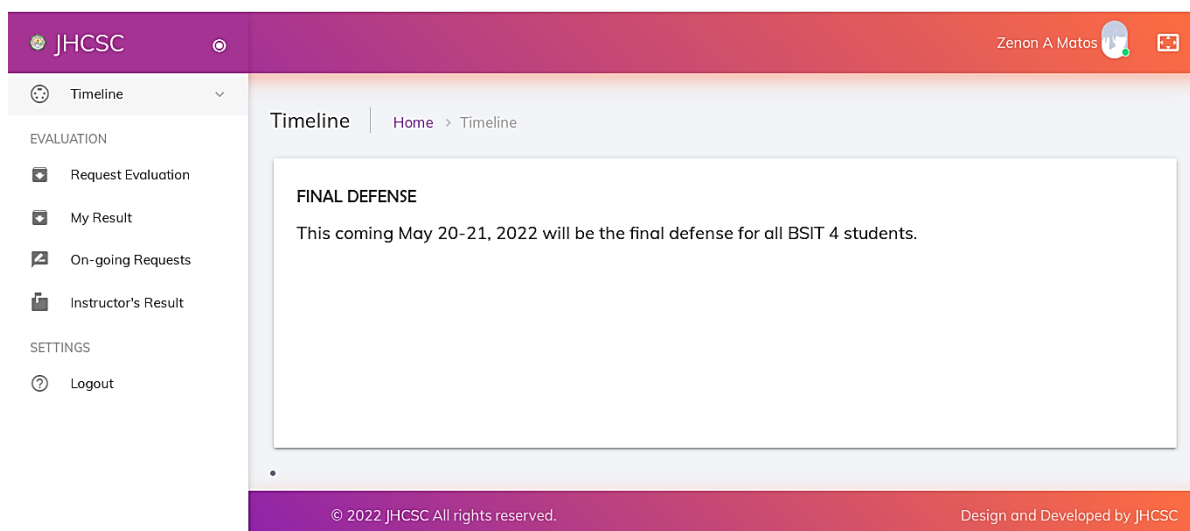


Figure 4.2.4 Dean's module

This module was for students limiting its feature to rating and viewing of announcements only.

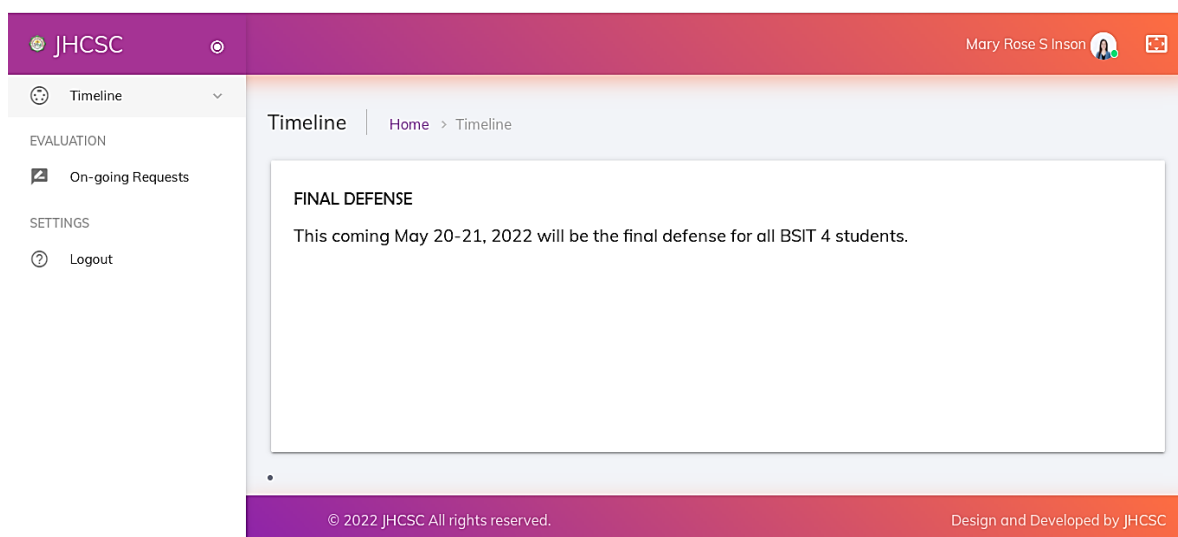


Figure 4.2.5 Students' account

## Testing

The researchers conducted program testing last June 06, 2022 with the Q.A. Staff, HR Staff, STE-Secretary, and seven (7) random students to ensure that the system works properly.

The researchers created four (4) questions based on the objectives with three (3) different rates from very satisfactory (5 pts.), satisfactory (3 pts.) to unsatisfactory (1 pt.). Each rating sheet has a maximum of twenty (20) points. All the respondents rated very satisfactory.

In general, the JHCSC Web-Based Faculty Evaluation gained 100% user response percentile approval rate which means that the system is useful to them.

## Implementation Plan

The implementation of the JHCSC Web-Based Faculty Evaluation will be done according to the strategic plan as shown in Table 4.2 which will assure the effectiveness and stability of the system.

| Activity                   | Target Date | Resources Required | Person Involve      | Expected Output   | Remarks |
|----------------------------|-------------|--------------------|---------------------|---|---------|
| Full system implementation | May 2022    | Laptop & Internet  | HR Staff, Q.A Staff | The system will be fully implemented and integrated to the school |         |

Table 4.2 **Activity Implementation**

## Chapter V

### RESULTS, DISCUSSION, CONCLUSION AND RECOMMENDATION

#### Results and Discussion

To create a module for evaluation such as self, peer, supervisor, and students.

The researchers designed this system to innovate the manual evaluation process of the teachers into a simplified one.

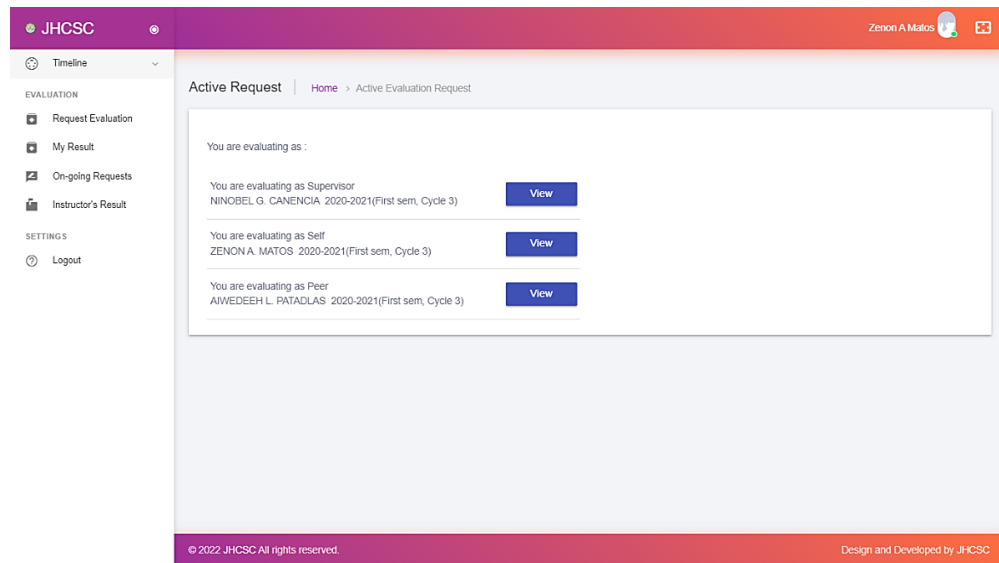


Figure 5.1.1 **Teacher's evaluation request**  
**(Supervisor, Self, Peer)**

The evaluators can rate either his/her self, peer, or supervisor as shown in Figure 5.1.1, and for the student as shown in Figure 5.1.2.

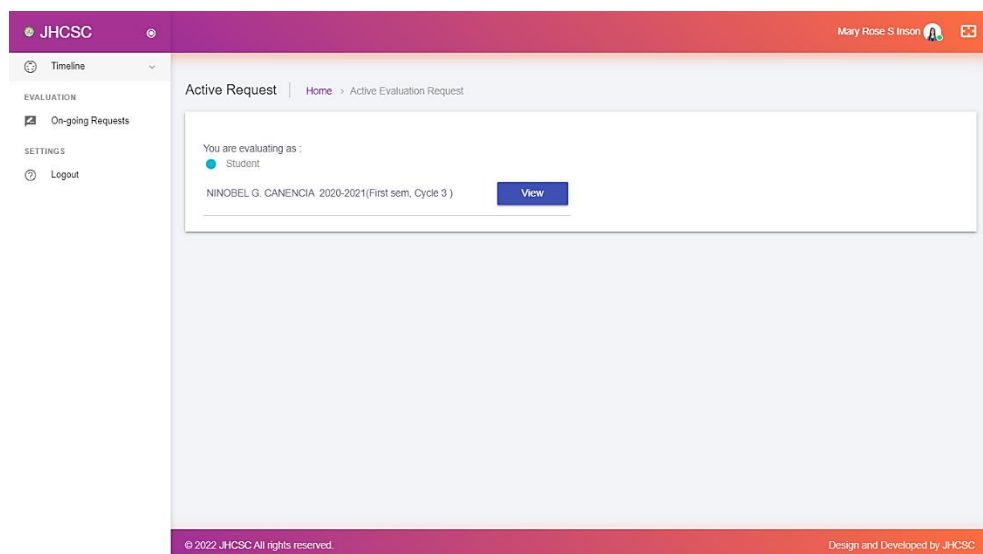


Figure 5.1.2 **Teacher's evaluation request (Student)**

## To calculate and print the results of the evaluation.

The reports can be viewed only after the evaluation closes. These reports are accessible to system administrator and dean. The Figure 5.2.1 shows the summary result of the evaluation reflecting the ratings gathered by the teacher on a specific cycle.

6/9/22, 1:28 PM localhost/thesis/admin/sum-result.php?n=198

Name: **NINOBEL G. CANENCIA** Present Academic Rank: Instructor

2018-2019 Year Second Semester

| Students   |      |                      |      |                        |      |                                   |      |
|------------|------|----------------------|------|------------------------|------|-----------------------------------|------|
| Commitment | 25%  | Knowledge of Subject | 25%  | Management of Learning | 25%  | Teaching for Independent Learning | 25%  |
| 21         | 5.25 | 21                   | 5.25 | 21                     | 5.25 | 23                                | 5.75 |
| 21         | 5.25 | 21                   | 5.25 | 21                     | 5.25 | 20                                | 5    |
| 24         | 6    | 21                   | 5.25 | 22                     | 5.5  | 21                                | 5.25 |
| 22         | 5.5  | 23                   | 5.75 | 22                     | 5.5  | 21                                | 5.25 |
| 21         | 5.25 | 20                   | 5    | 21                     | 5.25 | 20                                | 5    |
| 21         | 5.25 | 21                   | 5.25 | 21                     | 5.25 | 21                                | 5.25 |
| 21         | 5.25 | 23                   | 5.75 | 22                     | 5.5  | 21                                | 5.25 |
| 21         | 5.25 | 20                   | 5    | 23                     | 5.75 | 23                                | 5.75 |
| 21         | 5.25 | 21                   | 5.25 | 19                     | 4.75 | 21                                | 5.25 |
| 23         | 5.75 | 20                   | 5    | 20                     | 5    | 21                                | 5.25 |
| 216        |      | 211                  |      | 212                    |      |                                   |      |
| Total      |      |                      | 851  |                        |      | 8.51 ((Total X .30)/30)           |      |

| Peer       |     |                      |     |                        |     |                                   |     |
|------------|-----|----------------------|-----|------------------------|-----|-----------------------------------|-----|
| Commitment | 25% | Knowledge of Subject | 25% | Management of Learning | 25% | Teaching for Independent Learning | 25% |
| 24         | 6   | 24                   | 6   | 24                     | 6   | 24                                | 6   |
| 24         |     | 24                   |     | 24                     |     | 24                                |     |
| Total      |     |                      | 96  |                        |     | 3.84 ((Total X .20)/5)            |     |

| Supervisor |     |                      |     |                        |     |                                   |     |
|------------|-----|----------------------|-----|------------------------|-----|-----------------------------------|-----|
| Commitment | 25% | Knowledge of Subject | 25% | Management of Learning | 25% | Teaching for Independent Learning | 25% |
| 24         | 6   | 24                   | 6   | 24                     | 6   | 24                                | 6   |
| 24         |     | 24                   |     | 24                     |     | 24                                |     |
| Total      |     |                      | 96  |                        |     | 19.2 ((Total X .20)/1)            |     |

| Self       |     |                      |      |                        |      |                                   |      |
|------------|-----|----------------------|------|------------------------|------|-----------------------------------|------|
| Commitment | 25% | Knowledge of Subject | 25%  | Management of Learning | 25%  | Teaching for Independent Learning | 25%  |
| 24         | 6   | 23                   | 5.75 | 25                     | 6.25 | 25                                | 6.25 |
| 24         |     | 23                   |      | 25                     |      | 25                                |      |
| Total      |     |                      | 97   |                        |      | 29.1 ((Total X .30)/1)            |      |

| Summary       |            |                  |            |
|---------------|------------|------------------|------------|
| Student: 8.51 | Peer: 3.84 | Supervisor: 19.2 | Self: 29.1 |
| Total: 60.65  |            |                  |            |

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Pages: All

Copies: 1

Layout: Portrait

Color: Color

More settings

Print Cancel

Figure 5.2.1 Summary Result

NBC Qualitative Contribution Evaluation

SUMMARY COMPUTATION INSTRUCTION

Name: **NinoBel G. Canencia** Present Academic Rank: Instructor

2018-2019 Year Second Semester

| Evaluation | Frequency | Total Points | Mean  | QCE Weight | Weighted Score |
|------------|-----------|--------------|-------|------------|----------------|
| Student    | 30        | 851          | 28.37 | 30%        | 8.51           |
| Peer       | 5         | 96           | 19.2  | 20%        | 3.84           |
| Supervisor | 1         | 96           | 96    | 20%        | 19.2           |
| Self       | 1         | 97           | 97    | 30%        | 29.1           |
| Total      |           |              |       |            | 60.65          |

Local QCE Review Committee

Campus Evaluation Committee:

**NANETTE D. BILBAO, Ed.D.** Chairperson  
**ZENON A. MATOS JR.** Member  
**ALLAN Z. CAW-IT** Member  
**BENJAMIN B. MANGILA** Member

**VICTOR D. GARNADA** Vice Chairperson  
**MELIZA J. CHATO** Member  
**AIWEDEH C. PATADLAS, Ph.D.** Member  
**MERCY O. CABA-ONG** Member

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Figure 5.2.2 Summary Computation



The qualitative contribution evaluation as shown in Figure 5.2.2 shows the rating gathered by the teacher including the weighted score. This rating will help in characterizing and determining the qualification or eligibility of a personnel or faculty for the particular rank.

NBC Qualitative Contribution Evaluation  
for Instructors/Asst. Professors/Asso. Professors  
J. H. CERILLES STATE COLLEGE

DUMINGAG CAMPUS  
Davao City, Zamboanga del Sur

Name: Ninobel G. Canencia Present Academic Rank: Instructor

**SUMMARY RATING**

| Area       | Rating Period                     |            |           |            |           |            | Average Rating | WT   | QCE Points |
|------------|-----------------------------------|------------|-----------|------------|-----------|------------|----------------|------|------------|
|            | QCE POINT FOR EVERY RATING PERIOD |            |           |            |           |            |                |      |            |
|            | 2018-2019                         |            | 2019-2020 |            | 2020-2021 |            |                |      |            |
|            | First Sem                         | Second Sem | First Sem | Second Sem | First Sem | Second Sem |                |      |            |
| Students   | 90.5                              | 28.37      |           |            |           |            | 19.81          | 30%  | 5.94       |
| Peers      | 83.4                              | 19.2       |           |            |           |            | 17.1           | 20%  | 3.42       |
| Supervisor | 96                                | 96         |           |            |           |            | 32             | 20%  | 6.4        |
| Self       | 96                                | 97         |           |            |           |            | 32.17          | 30%  | 9.65       |
| Total      | 365.9                             | 240.57     | 0         | 0          | 0         | 0          | 25.27          | 100% | 25.41      |

Local QCE Review Committee

Campus Evaluation Committee:

NANETTE D. BILBAO, Ed.D.  
Chairperson

VICTOR D. GARNADA  
Vice Chairperson

ZENON A. MATOS, JR.  
Member

MELIZA J. CHATTO  
Member

ALLAN Z. CAWIT  
Member

AIWEDHI C. PATADLAS, Ph.D.  
Member

BENJAMIN B. MANGILA  
Member

MERCY O. CABA-ONG  
Member

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Figure 5.2.3 **Summary Rating**

The summary of rating is system generated as shown in Figure 5.2.3 which displays the rating of a particular teacher throughout the three cycles of evaluation.

### To store and track evaluation records.

The system is designed to be user-friendly, thus retrieving of various records is made easy. For instance, in Figure 5.3.1 shows the retrieval of assessment questions.

JHCSC

Ninobel G. Canencia

Timeline

EVALUATION

Request Evaluation

My Result

On-going Requests

SETTINGS

Logout

Active Request Home

> Active Evaluation Request

Instructor's name: ZENON A. MATOS You are evaluating as: Peer

Commitment

1. Demonstrate sensitivity to students to attend and absorb content information.

☐ 5 Outstanding  
☐ 4 Very Satisfactory  
☐ 3 Satisfactory  
☐ 2 Fair  
☐ 1 Poor

Previous Next

Figure 5.3.1 **Evaluation**

Active Request | Home > Active Evaluation Request

Instructor's name: ZENON A. MATOS You are evaluating as: Peer

Commitment

1. Demonstrate sensitivity to students to attend and absorb content information.

☐ 5 Outstanding  
☐ 4 Very Satisfactory  
☐ 3 Satisfactory  
☐ 2 Fair  
☐ 1 Poor

Previous Next

Figure 5.3.2 **System accessed using smartphone and tablet**

The system is also designed using HTML5 template so that it can be accessed in various platforms such as smartphones and tablet as shown in Figure 5.3.2. The responses are automatically saved in the database which is reflected on the result of the evaluation.

## Conclusions

The development of the Web-Based Faculty Evaluation of JHCSC-Dumingag transforms digitally the manual evaluation of the system making it more accurate and reliable. The evaluation is accessible anytime and anywhere as long as the internet connection is available most especially that the school is currently implementing the modular learning system due to the rapid increase of COVID-19 cases. Faculty are no longer required to process, record and compute the result of the evaluations since it is already available and printable right after closing the evaluation. This technology is already packed with tools necessary in making this teacher evaluation process more effective, however, a hand-in-hand cooperation with the school, administrators, teachers and students is still a key in attaining the sustainability of the system.

Based on the results of the study, the researchers hereby conclude that the developed system can evaluate such as self, peer, supervisor or student. The system can also calculate and print the results of the evaluation. Lastly, the system can store and track evaluation records.

## **Recommendations**

Blended learning with integration of e-learning system is new to tertiary education that value both synchronous and asynchronous learning technologies. However, the researchers make the following recommendations to improve this research.

1. The school should provide support for the successful implementation of the system.
2. Facilitators of learning should undergo training and workshop to utilize the system effectively. The modules they will provide are significant key for the operation of this system. Thus, a strong dedication is highly needed.
3. Students must be trained on the utilization of the system. This includes the security and privacy of their account.
4. Future researchers may expand the limitations of this system as stated in the scope and limitations. Additional features may be added such as video call conferencing and social media modules like Facebook to enhance the connectivity of students and teachers.

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