Research Article

Assist Web-Based Grade Entry and Inquiry System

Christopher John R. Llanda, Janelyn A. Ambre, Excel Philip B. Guidang
Abra State Institute of Sciences and Technology, Lagangilang, Abra, Philippines

*Corresponding author
Christopher John R. Llanda
Email: rieann12@gmail.com

Abstract: The researchers developed the ASIST Web-Based Grade Entry and Inquiry System. Specifically, it achieved the following objectives: a.) determined the policies and procedures of grade inquiry and entry system, b.) developed the ASIST Web-Based Grade Entry and Grade Inquiry System, and c.) determined the usability of the ASIST Web-Based Grade Entry and Inquiry System in terms of efficiency, affect, helpfulness, control, and learnability.The descriptive-developmental type of research was used. Data needed in the study were gathered from the registrar, registrar's staff, 7 instructors and 56 students of IT. A documentary analysis coupled with interview determined the policies and procedures. Software Usability Measurement Inventory determined the usability of the developed ASIST Web-Based Grade Entry and Inquiry System. The data gathered were analyzed and interpreted with the use of frequency count and measures of central tendency. Policies of grade entry and inquiry are based from the ASIST Code. The grade entry procedures were done manually by the professors/instructors. ASIST Web-Based Grade Inquiry and Entry System software was developed by the used of code and fix software development methodology. PHP, JavaScript, CSS and HTML scripting languages was used for system's frontend and MySQL DBMS was used for system's backend. The developed system was found out to be usable in terms of its efficiency, affect, helpfulness, control, and learnability.
Keywords: ASIST Web-Based Grade Entry, Inquiry System Software Usability.

INTRODUCTION
Situation Analysis

Innovations have made possible the operations of the computer easy enough in processing record systems such as creation of data records, storing, filing, and retrieval of data. As part of innovation, the computer and the Internet became part of our need in learning. It also helps us to learn something in the quickest and easiest way by providing relevant information online especially in educational institutions. The grade of the students is one of the essential qualities and products of school works.

Grade is an important record to keep even for the longest time for the referral and credentials of the student to enter their next level of attaining their goals. It is the totality of student's performance in each subject. These include examinations, quizzes, seat works, assignments, projects or case studies, and recitations.

According to Marzano[1], grades are typically defined as the numbers or letters reported at the end of a set period of time as a summary statement of evaluations made of students by the teacher. It reflects and measures the performance of a student and determines whether a student passes the subject or not.

It also helps the professors to guide and facilitate the student's learning development. Knowing the grades at the end of every semester is the most awaited and most important part of an individual student. Thus, student grades must be safely accumulated or stored in a database and must be well distributed to the students.

Gutek[2] states that the purpose and efficiency of assigning individual grades to students remains an accepted and established practice among educators as a part of the goal of educating students. Furthermore, teachers typically assign grades at the end of a designated grading period. Within education, grades are the most powerful message teachers can send to parents and students. Teachers need to look at the reasons for grading, which are to communicate to parents, to provide incentives to learn, and to provide information for student self-evaluation. The importance of grades is so ingrained in American educational culture that the practice of giving and receiving grades often goes unchallenged.

Online Grade Posting is a Web-based application that can be used to report ratings. It posts the grades of the students online. The students have an account to access their report card. Online grade posting can eliminate the need for progress reports, saving paper, and postage if mailed. Aside from the benefit

mentioned above, it also reduces cost in producing or making a progress report, thus making a paperless grade entry. Through online grading system, teachers can post the grade of his students anywhere or without going out to school through the Website of the school. Students can also view their grades anywhere and anytime.

The student population of the Abra State Institute of Sciences and Technology is increasing and at the same time, the number of works of the registrar, instructors, and student grades to be processed is also increasing. One of the responsibilities of the Office of the Registrar is to keep the student grades secured for their records and other purposes.

The existing grade entry and inquiry system of the school is a tiresome job because of delayed submission of grades by the teaching staff and entry of data may be redundant. A lot of time is consumed in searching for the grades of students in filing cabinets and retrieval of data of each student in folders. One has to look for each student's folder then write grades one by one on the evaluation form. A lot of paper sheets are used in printing grading sheets per semester. In the issuance of the certification of grades, it costs time and effort in searching grade records and encode it.

On the part of the instructors, the existing process of grade entry is a multi-task. They have to accomplish three copies of the report of rating form for each subject they teach, one copy for the registrar, one for the college dean and one for the department chairman. Having many subjects and a lot of students enrolled in every subject makes their work harder and tiresome. Data have no integrity because grades entered can be changed intentionally or not. It requires a lot of paper to be used, too. Considering the distance between buildings which is too far from each other, there is wastage of time and exertion of more efforts to submit grades to the Office of the Registrar.

On the part of the students, methods of acquiring their grades are inconvenient, tiresome and at some instances, are time-consuming and costly. They need to go directly to the Registrar in order to inquire their grade or look for their respective instructors to get their class cards. In inquiring grades, it may cost a lot of time because only one student at a time can be accommodated for evaluation of grades. Some working students are not able to see their class card because of lack of time. Worst, students who are having a vacation in distant places cannot see their grades at all.

In this regard, the researchers have studied and analyzed the problem to come up with the developed online grade entry and inquiry system. The system was developed to meet the specific needs of the registrar, instructors and students that could lessen their time, effort and to enhance processes and flow of the existing system.

Statement of the Objectives

The main objective of this study was to develop the ASIST Web-Based Grade Entry and Inquiry System.

Specifically, it aimed to achieve the following objectives:

1. To determine the policies and procedures of ASIST grade entry and inquiry system.
2. To develop the ASIST Web-Based Grade Entry and Inquiry System,
3. To determine the usability of the ASIST Web-Based Grade Entry and Inquiry System in terms of:
    5.1 Efficiency,
    5.2 Affect,
    5.3 Helpfulness,
    5.4 Control, and
    5.5 Learnability.

METHODOLOGY
Research Design

The descriptive and applied designs of research were used in this study. Creswell [3] states that the descriptive method of research is to gather information about the present existing condition. The emphasis is on describing rather than on judging or interpreting.

This study used the descriptive research design because in determining the policies and procedures of ASIST grade entry and inquiry was assessed through interviews, documentary analysis and survey questionnaires. The identification of the mentioned variables was used as basis for the development of the ASIST Web-Based Grade Entry and Inquiry System which eventually led the researchers to use the applied type of research design.

According to Gall *et al*. [4], applied research design follows a characteristic cycle whereby initially an exploratory stance is adopted, where an understanding of a problem is developed and plans are made for some form of strategy. It is intended to a deeper understanding of a given situation, starting with conceptualizing and particularizing the problem and moving through several interventions and evaluations. This study used the applied research design that deals on design, development and evaluation. Extreme Programming model was used as the software development model. It is an agile model in developing software which is composed of: 1) Requirements Gathering also known as Customer or User Stories, 2) Software Development (Testing and Coding), 3) Small Releases, and 4) Maintenance.

The paradigm in Figure 1 shows the interaction of the Input-Process-Output (IPO) variables. The researchers included the information about the grade entry and inquiry policies and procedures of ASIST.

From the mentioned input, it was processed by way of documentary checklist and analysis coupled with a structured interview to the personnel as the end-users of the output of this study.

The data resulting from the documentary checklist, analysis, and interview were used in the system development premised on the Extreme Programming model. The developed system was validated in terms of usability to produce a helpful, controlled, reliable, and efficient ASIST Web-Based Grade Entry and Inquiry System.

The output is the ASIST Web-Base Grade Entry and Inquiry System. The feedback of the study was based from the results of the system being tested and evaluated by the users or respondents and this provided room for improvement.
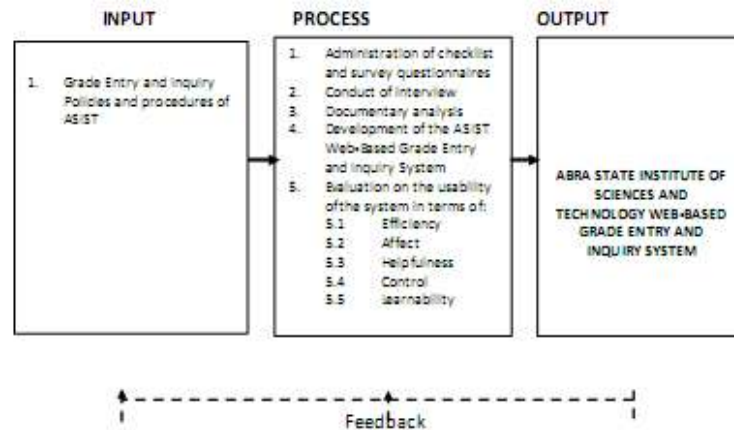

Fig. 1: Research Paradigm

Sources of Data

The registrar, registrar's staff, instructors and students of IT Department served as the respondents of the study.

Table1. Distribution of Respondents

Respondents	n
Registrar	1
Office of the Registrar staff	1
Instructors	7
Students	56
Total	**65**

The respondents of this study were composed of the registrar, one registrar's staff, 7 instructors and 56 students. The distribution of respondents was obtained using purposive sampling method. Chaturvedi[5] states that purposive sampling is a non-probability sampling where the researcher chooses the sample based on who they think would be appropriate for the study. It is mainly used in the events where there are a few people that have the required knowledge of the area being researched. The registrar, registrar's staff and instructors were selected as the sources of data that were used as input in the development of the system. They were chosen to provide the data needed to identify the procedures of the existing system and its status. All of the respondents including students were requested to assess the usability of the developed ASIST Web-Based Grade Entry and Inquiry System. The distribution of respondents is shown in Table 1.

Data Instrumentation

The researchers used the focus group interview, documentary analysis, checklist, and survey questionnaire as data gathering tools.

For objective 1, the researchers conducted an interview with the registrar to determine the policies and procedures of the existing ASIST grade entry and inquiry system.

For objective 2, in the development of the ASIST Web - Based Grade Entry and Inquiry System, the researchers used the Extreme Programming model. As introduced by Kent Beck in the mid 1990's, extreme programming is an agile method of software development focused on providing the highest value for the customer in the fastest way possible. It involves short, tight iterations of building and releasing software.
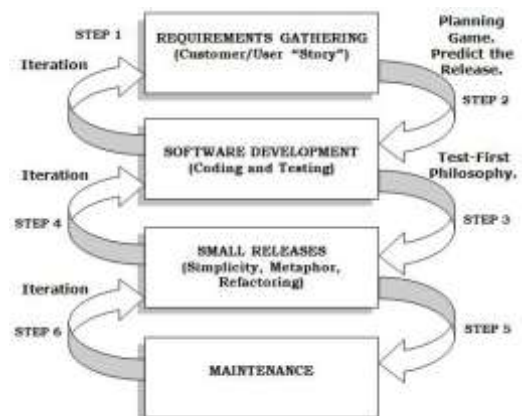

Fig. 2:Extreme Programming Model

In the requirements gathering phase, the researchers identified and analyzed specific information needed based on the user stories in order to develop an effective web-based grade entry and inquiry system. They converted user stories into iterations that cover a small part of the functionality or features required. During software development phase,it involved coding, testing and the complete design of the system. Coding constituted the most phases in the extreme programming life cycle. The researchers used PHP and JavaScript as the scripting language, CSS as the graphical user interface design tool and MySQL as the relational database in developing the system. Extreme programming integrates testing with development phase rather than the end of the development phase. All codes have unit test to eliminate bugs, and the code passes all such unit test before release. In designing, the researchers considered the user interface and user friendliness of the system. In the small releases, the researchers released the system to the users and they received feedback from them. Each feedback that specifies revised requirements became the basis of a new design. The process iterated and the system was re-released. Maintenance phase resembles the final tasks in the SDLC implementation phase, data conversation, testing and user training. The system was released to the users and training was conducted in order for them to learn the flow of the system.

For objective 3, questionnaire was used to determine the usability of the developed system adopted from the concept of Veenendaal *et al.*[6] known as Software Usability Measurement Inventory (SUMI). Since the instrument was already used by Teneza *et al.*[7] in their study "Automated Student Government Election for ASIST," and these were norms in evaluating systems in the world of ICT, it is presumed to be valid and reliable.

Data Analysis

The data gathered from the respondents were analyzed and interpreted using the statistical treatment measures of central tendency. This measure of central tendency is called the mean.

To determine the usability of the ASIST Web-Based Grade Entry and Inquiry System, the Software Usability Measurement Inventory (SUMI) in terms of efficiency, affect, helpfulness, control, and learnability, was interpreted using the Likert Scale and descriptive ratings as shown below.

Table-2. Likert Scale and descriptive ratings

Point Scale	Mean Range	Descriptive Rating	Descriptive Interpretation
5	4.21-5.00	Strongly agree	Usable
4	3.41-4.20	Agree	Usable
3	2.61-3.40	Neutral	Usable
2	1.81-2.60	Disagree	Not Usable
1	1.00-1.80	Strongly Disagree	Not Usable

The variables with responses within the mean range of 2.61 to 5.00 were interpreted as Usable while those variables with responses within the mean range of 1.00 to 2.60 were considered as Not Usable.

RESULTS AND DISCUSSION
Policies and Procedures of ASIST Grade Entry and Inquiry System

According to the Code of ASIST, Chapter LV (Examinations and Grades), Article 241 as seen in Appendix E, every faculty member shall submit his report of grades not later than ten days after the last day of examination period at the end of each term, and shall adhere to the Board Resolution regarding the matter. No faculty member shall be required to submit grades in any course oftener than twice a semester or term. In Article 242, no faculty member shall change any grade after the report of the rating has been filed with the department and with the Registrar. Where an error in computation has been committed, the instructor may request authority through the official channels to make the necessary correction. If the request is granted, a copy of the resolution of the faculty authorizing the change shall be forwarded to the Office of the Registrar for correction of the records. In no case shall grades be changed beyond one year after initial filing, nor shall any change operate to the prejudice of students. Article 245 states that there shall be a regular period for removing grades of "INC." A grade of incomplete must be completed within a year. Beyond which, a grade of "5.0" is given.

From the interview conducted with three instructors, they must accomplish three copies of the Report of Rating. They pass one copy to the Registrar, the college dean and department chairman. In the Office of the Registrar, grades submitted by the instructor are written in each student folder. If a student inquires his grades, he must go to the Office of the Registrar personally. The registrar finds the student's folder and shows his grades. If the student secures his certification of grades, he must pay twenty five pesos to the cashier and give the receipt to the registrar. The registrar encodes his grades in all subjects one by one using MS Word. The registrar manually calculates the student's weighted average before printing it.

Development of the ASIST Web- Based Grade Entry and Inquiry System
Functional Requirements

The ASIST Web-Based Grade Entry and Inquiry was developed for accuracy in the submission of grades and inquiring of grades by the students and for security of the record of student grades due to external and internal threats.

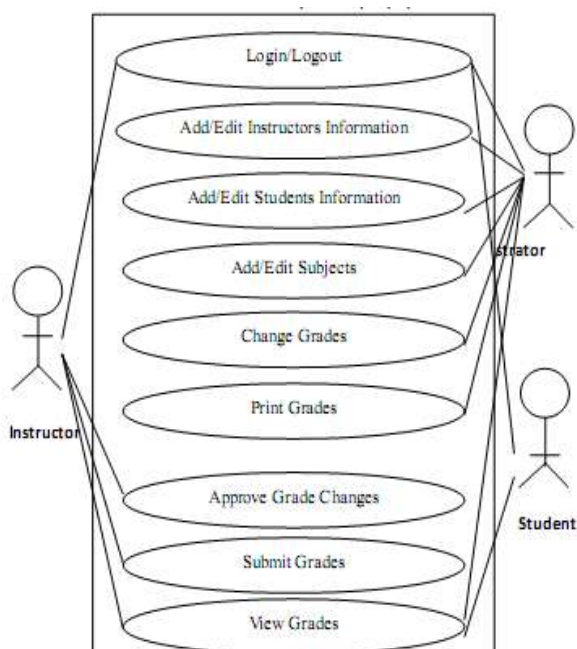**ASIST Online Grade Entry and Inquiry System**

Fig. 3: Use Case Diagram of ASIST We-Based Grade Entry and Inquiry System

Figure 3 displays the use case diagram of ASIST Web-Based Grade Entry and Inquiry System to represent the functionality of the system from a user's point of view. The registrar or her staff serves as the administrator of the system. They have absolute control over the system and users of the system. They can log in and out of the system, add and edit instructor's and student's account or information, add and edit subjects handled by the instructor and subjects enrolled by the students, access grades submitted by the instructor and print grades. The instructor can encode grades or import from MS Excel files and submit grades to the registrar. Lastly, the students can view their grades.

Non-Functional Requirements

The Web-Based Grade Entry and Inquiry System were exclusively developed for ASIST. The following are needed for the implementation of the system.

Hardware Requirements

For the implementation of the Web-Based Grade Entry and Inquiry System developed by the researchers, the following computer hardware is needed for the system.

- Intel Quad Core 4 GHz,
- At least 19 inches for monitor,
- 4 GB or higher for physical memory, and
- 500 GB for hard disk drive.

Software Requirements

A software requirement is a complete description of the system software and its application where the system shall be installed and to be compatible with. The following shows the software needed where the system shall be installed.

- Windows 7 for the operating system,
- MySQL Data Provider for data provider,
- MySQL Server for database platform, and
- Web browser.

Network

According to Buyya[8], a network architecture in which each computer or process on the network is either a client or a server.A client is a program that runs on the computer which you access in the first place (often your desktop PC or an online access computer). Each client provides an interface to each of the services (databases, online files, e-mail) that are made available by other systems, which are called servers. In this study client and server was used, the server (registrar) process and provides data requested by the clients (instructor and students) connected through the Internet.

Fig. 4: The ASIST Web-Based Grade Entry and Inquiry System Network Layout

Requirements Gathering

In gathering data, the researchers gathered information from the students, instructors and the Registrar. For the policies of the existing grade entry and inquiry system the researchers used documentary analysis. For the procedures, an interview was conducted.

Software Development

The researchers used PHP and JavaScript as the scripting language, CSS as the graphical user interface design tool, and MySQL as the database for the development of the ASIST Web-Based Grade Entry and Inquiry System.

Operations and Activities of the Developed ASIST
Web-Based Grade Entry and Inquiry System

Plate 1: Student Grade Query Form

This form allows student to query about their grades. The students shall enter his/her student id, passwordand select the school year and semester to display his/her grades.

Plate 2: Grade Report of Rating Form

This form displays the subjects enrolled by the students and their midterm and final grades.

Plate 3: Authentication Prompt for Instructors Grade Entry Form

This form allows the instructor to login before he/she can enter grades to his/her students.
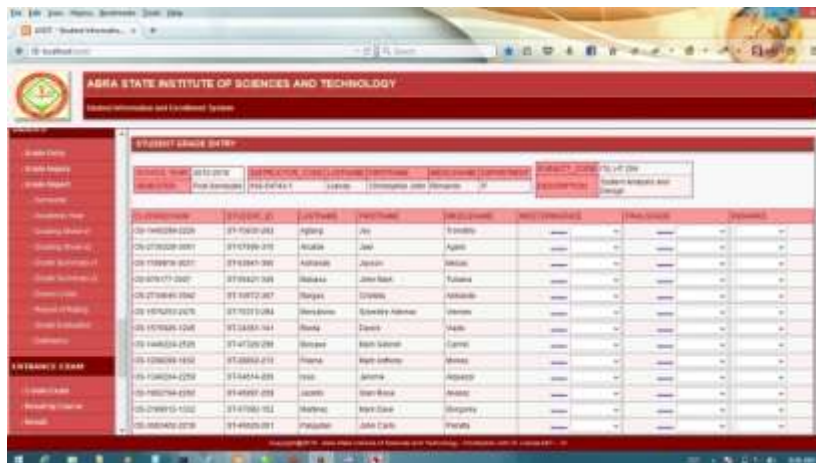
Plate 4: Grade Entry Form

This form allows instructor to encode the midterm grade and final grade of students. This form can determine automatically the remarks, if it is failed or passed and the instructor can input also other remarks if a student is incomplete.

Plate 5:List of Subjects handled by instructors Form

This form shows the list of subjects that the instructor is handling wherein he/she is only the authorized user to enter the grades of his/her students on the subjects.

Plate 6: Summary of Grades Form

This form is used to display the summary of grades of the students from the subjects they enrolled in a particular semester and school year.

Plate 7: Evalaution Form

This form shows the evaluation of grades of students.

Small Releases

The researchers released the developed ASIST Web-Based Grade Entry and Inquiry System to the end users. The users were allowed to give their feedback for the desired function of the system. Each feedback became the basis of a new design and functionality of the system to produce a more reliable and efficient system. This process repeated until the system was completely developed.

Maintenance

If ASIST is willing to implement the web-based grade entry and inquiry system, user training shall be conducted in order for them to learn the flow of the system.

Usability of the Developed ASIST Web-Based Grade Entry and Inquiry System

The developed web-based grade entry and inquiry system was evaluated for its usability in terms of efficiency, affect, helpfulness, control, and learnability.

Efficiency

With regard to the efficiency of the developed web-based grade entry and inquiry system, the respondents strongly agreed that the developed system was efficient with an overall mean of 4.28. Table 3 shows the details of the results.

The indicator "this software responds quickly to inputs" was rated as the highest of all indicators and with a mean rating of 4.50. This indicates that the software responds quickly even if the processes are executed simultaneously. The lowest mean rating of 4.18 was obtained by the indicator "learning to operate this software initially is free of problems" and was described as agree. This means that the respondents can easily operate and learn how to use the system.

Table 3: Usability of ASIST Web-Based Grade Entry and Inquiry System in terms of Efficiency

Indicator	Mean	Descriptive Equivalent Rating	Descriptive Interpretation
1. This software responds quickly to inputs.	4.50	Strongly Agree	Usable
2. The respondents would recommend this software to their colleagues.	4.26	Strongly Agree	Usable
3. The instructions and prompts are helpful.	4.34	Strongly Agree	Usable
4. The software has not at some time stopped unexpectedly.	4.18	Agree	Usable
5. Learning to operate this software initially is of fewer problems.	4.20	Agree	Usable
6. The respondents know what to do next with this software.	4.21	Strongly Agree	Usable
7. The respondents enjoy their sessions with this software.	4.29	Strongly Agree	Usable
8. The respondents find that the help information given by this software is very useful.	4.37	Strongly Agree	Usable
9. If this software stops, it is easy to restart it.	4.20	Agree	Usable
10. It is easy to learn the software commands.	4.21	Strongly Agree	Usable
Overall Mean	**4.28**	**Strongly Agree**	**Usable**

The results support the study of Gack[9] that a software process is efficient if, relative to an alternative, it produces an equivalent or better result. The items cover the salience of actions, compatibility with the user's expectations, suitability to the user's tasks, and the experienced length of sequences.

Affect

When it comes to the effectiveness of the system, table 4 below shows that the respondents strongly agreed with an overall mean of 4.22.

The highest rating mean of 4.39 was obtained by the indicator "there is enough information on the screen when it's needed" was described as strongly agree. The lowest rating mean of 4.09 was obtained by the indicator "working with this software is mentally stimulating." It was described as agree. This implies that the respondents feel convenient when using the system. The items measure affect by asking users to agree with feelings, behavioral intentions, and concrete experiences with the product during its use.

Table 4: Usability of ASISTWeb-Based Grade Entry and Inquiry System in terms ofAffect

Indicator	Mean	Descriptive Equivalent Rating	Descriptive Interpretation
1. The respondents never wondered if they're using the right commands.	4.33	Strongly Agree	Usable
2. Working with this software is satisfying.	4.17	Agree	Usable
3. The way that system information is presented is clear and understandable.	4.18	Agree	Usable
4. The respondents feel safer if they use only a few familiar commands or operations.	4.14	Agree	Usable
5. The software documentation is very informative.	4.30	Strongly Agree	Usable
6. This software does not seem to disrupt the way the respondents normally like to arrange my work.	4.17	Agree	Usable
7. Working with this software is mentally stimulating.	4.09	Agree	Usable
8. There is enough information on the screen when it's needed.	4.39	Strongly Agree	Usable
9. The respondents feel in command of this software when they are using it.	4.25	Strongly Agree	Usable
10. The respondents prefer not to stick to the facilities that they know best.	4.14	Agree	Usable
Overall Mean	**4.22**	**Strongly Agree**	**Usable**

Helpfulness

As perceived by the respondents, the developed system is very helpful. The data in table 5 reveals that an overall mean of 4.25 described as strongly agree was obtained for all the indicators presented. This finding proves that the system is very helpful to ASIST and most especially to the registrar, instructor, and students.

Table 5: Usability of ASIST Web-Based Grade Entry and Inquiry System in terms of Helpfulness

Indicator	Mean	Descriptive Equivalent Rating	Descriptive Interpretation
1. The respondents think the software is consistent.	4.34	Strongly Agree	Usable
2. The respondents would like to use this software every day because of its friendly interface.	4.20	Agree	Usable
3. The respondents can understand and act on the information provided by the software.	4.29	Strongly Agree	Usable
4. This software isn't awkward when they want to do something which is not standard.	4.29	Strongly Agree	Usable
5. There are a few to read before you can use the software.	4.26	Strongly Agree	Usable
6. Tasks can be performed in a straightforward manner using this software.	4.21	Strongly Agree	Usable
7. Using this software isn't frustrating.	4.16	Agree	Usable
8. The software has helped overcome any problems the respondents have had in using it.	4.22	Strongly Agree	Usable
9. The speed of this software is fast.	4.24	Strongly Agree	Usable
10. The respondents don't keep going back to look at the guide of the software.	4.26	Strongly Agree	Usable
Overall Mean	**4.25**	**Strongly Agree**	**Usable**

Control

In terms of the control of the developed ASIST Online Grade Entry and Inquiry System, the respondents strongly agreed with an overall mean of 4.22 as shown in table 6.

The indicator "the organization of the menus or information lists seems quite logical" was the highest indicator described as strongly agree with a mean rating of 4.40. The indicator "error prevention messages are adequate" was the lowest indicator described as agree with a mean of 4.04. This finding implies that the system is easy to use. Control here means the extent to which the user feels in control of the software, as opposed to being controlled by the software, when carrying out the task to be done.

Keinonen[9] stressed that control is related to the user's subjective feeling of first person participation and engagement with the interaction, and also to the design principle which aims at this – direct manipulation. The proposition is that interaction is more rewarding if the users feel they can themselves directly influences the objects, instead of merely giving the system instructions to act.

Table 6: Usability of ASIST Web-Based Grade Entry and Inquiry System in terms of Control

Indicator	Mean	Descriptive Equivalent Rating	Descriptive Interpretation
1. It is obvious that user needs have been fully taken into consideration.	4.20	Agree	Usable
2. The respondents have never felt quite tensed in using this software.	4.25	Strongly Agree	Usable
3. The organization of the menus or information lists seems quite logical.	4.40	Strongly Agree	Usable
4. The software allows the user to be economical of keystrokes.	4.17	Agree	Usable
5. Learning how to use new functions is easy.	4.16	Agree	Usable
6. There are a few steps required to get something to work.	4.17	Agree	Usable
7. The software never gave the respondents a headache on occasion.	4.26	Strongly Agree	Usable
8. Error prevention messages are adequate.	4.04	Agree	Usable
9. It is easy to make the software do exactly what you want.	4.29	Strongly Agree	Usable
10. The respondents can always learn to use all that is offered in this software.	4.25	Strongly Agree	Usable
Overall Mean	**4.22**	**Strongly Agree**	**Usable**

Learnability

It could be gleaned on the table 7 that learnability of the system was not a problem among the respondents. The highest rating mean of 4.34 was obtained by the indicator "this software always behaves in a way which can be understood" and "it is easy to see at a glance what the options are at each stage." This means that the respondents easily understood how to use the system and they were also motivated to learn its usability in a very fast mode. The lowest rating mean of 4.14 was obtained by the indicator "this software is not awkward" and was described as agree. The finding points out that learning the system is easy and mastery of its use can be achieved in a very short time. Learnability is an attribute in the usability of the developed online grade entry and inquiry system when respondents felt that they have been able to master the system, or to learn how to use new features when necessary.

Table 7: Usability of ASIST Web-Based Grade Entry and Inquiry System in terms of Learnability

Indicator	Mean	Descriptive Equivalent Rating	Descriptive Interpretation
1. The software has always done what the respondents were expecting.	4.21	Strongly Agree	Usable
2. The software has a very attractive presentation.	4.18	Agree	Usable
3. Either the amount or quality of the help information varies across the system.	4.28	Strongly Agree	Usable
4. It is relatively easy to move from one part of a task to another.	4.32	Strongly Agree	Usable
5. It is easy to remember how to do things with this software.	4.28	Strongly Agree	Usable
6. This software always behaves in a way which can be understood.	4.34	Strongly Agree	Usable
7. This software is not awkward at all.	4.14	Agree	Usable
8. It is easy to see at a glance what the options are at each stage.	4.34	Strongly Agree	Usable
9. Getting data files in and out of the system is easy.	4.18	Agree	Usable
10. The respondents never asked for assistance when they use this software.	4.30	Agree	Usable
Overall Mean	**4.26**	**Strongly Agree**	**Usable**

Summary of the Usability of the ASIST Web-Based Grade Entry and Inquiry System

Table 8 shows the summary of the usability of the ASIST Online Grade Entry and Inquiry System. It is evident that the respondents strongly agreed that the system is very useful with a grand mean rating of 4.24.

The highest rating mean of 4.28 described as strongly agree was given to efficiency which means that the developed system is efficient for use. The least rating mean of 4.22 described as strongly agree was given to affect and control which means that the developed system is effective for use and the user is in control of the program and not the program being in control of the user. In terms of helpfulness and learnability, the respondents strongly agreed that the system was very helpful and easy to learn.

According to Istqbexamcertification.com [10], in usability testing basically the tester's tests the ease with which the user interfaces can be used. It tests that whether the application or the product built is user-friendly or not. Usability testing also reveals whether users feel comfortable with your application according to different parameters which are the flow, navigation, layout, speed, and content and most especially, in comparison to prior or similar applications.

Table 8: Summary Table of the Usability of ASIST Web-Based Grade Entry and Inquiry System

Indicator	Mean	Descriptive Equivalent Rating	Descriptive Interpretation
1. Efficiency	4.28	Strongly Agree	Usable
2. Affect	4.22	Strongly Agree	Usable
3. Helpfulness	4.25	Strongly Agree	Usable
4. Control	4.22	Strongly Agree	Usable
5. Learnability	4.26	Strongly Agree	Usable
Grand Mean	**4.24**	**Strongly Agree**	**Usable**

CONCLUSIONS

Based from the above findings, the following conclusions were derived:

1. The policies of grade entry and inquiry are based on the Code of ASIST and the procedures are done manually.
2. Using the extreme programming software development model, a reliable and feasible ASIST Web-Based Grade Entry and Inquiry System from development to implementation was achieved.
3. The developed ASIST Web-Based Grade Entry and Inquiry System was designed to fit the needs of ASIST because it was found out to be usable

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