

### THE LEVEL OF ACCEPTABILITY OF THE ONE-STOP PREP (AN AUTOMATED PROGRESS REPORT PROGRAM) FOR SENIOR HIGH SCHOOL TEACHERS Sontillano, Raisa D. Completed 2022



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#### The Level of Acceptability of the One-Stop PReP (An Automated Progress Report Program) for Senior High School Teachers

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#### Abstract

The study investigated the level of acceptability of the One-Stop PReP as an automated progress report program among senior high school teachers in the Schools Division of Roxas City. It aimed to address the crucial need for timely and accurate academic progress reports to support student learning. The lack of a unified automated learner's progress report program in the division prompted the development of the One-Stop PReP as an innovative intervention to respond to the needs of the teachers. Employing a descriptive research design, the study involved 70 out of 86 senior high school teachers chosen through stratified random sampling. Data collection instruments included the Personal Data Sheet for demographic information and the Software Characteristics Questionnaire by Dy et al. (2013) to assess the acceptability of One-Stop PReP. Statistical analyses used were frequency counts, percentage, mean, standard deviation, t-Test for independent means, and One-Way ANOVA, with a significance level set at 0.05. Findings revealed that the One-Stop PReP is highly acceptable in terms of reliability, efficiency, accuracy, user friendliness, and security. The overall level of acceptability was consistent across the different demographic profiles of the teachers. There were no significant differences in the level of acceptability based on sex, age, civil status, teaching experience, and educational attainment. The program demonstrated potential to streamline grade computation and form completion for academic progress reporting. Despite its commendable acceptability, the study highlighted the necessity for continuous improvements guided by user feedback and technological support for optimal implementation and utilization to contribute in achieving the Department of Education intermediate outcomes in terms of Governance as one of its enabling mechanisms ensuring that human resources are competent and continuously improving as well as the realization of the MATATAG agenda in taking steps to accelerate the delivery of basic education services and provision of facilities. Recommendations included provision of technical support, development of video tutorials, and exploration of additional areas for program enhancement and implementation.

**Keywords:** Academic Progress, Automated Grading System, Progress Report Program, User Feedback It is with great honor and privilege that the researcher expresses her deepest gratitude and sincerest appreciation to all the people who have shared their valuable time and intelligence towards the completion of this research work:

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#### Sontillano

#### Introduction

To effectively achieve optimum learning, timely, and accurate reports on learners' academic progress must be provided. This can only be materialized if parents, stakeholders, teachers, and administrators work together to support students' learning. It can also help determine areas that need further development. In the Philippines, according to Batas Pambansa No. 232, Chapter 2, Section 16 (3), "Every teacher shall render regular reports on the performance of each student and to the latter's parents and guardians with specific suggestions for improvement." Monitoring and reporting students' academic progress is fundamental for teachers. It incentivizes student achievements and identifies areas of challenge, while grades guide students' academic advancement, necessitating fairness, completeness, and accuracy (Mercado, 2017).

Traditionally, manual record-keeping systems burdened teachers and students with time-consuming tasks, leading to potential data loss. To substitute the conventional ways of recording the performance of the students and to supplement the needs of teachers, DepEd Memorandum No. 60, s. 2015 provides Electronic Class Record (ERC) and School Form 10 (SF10) templates that are free to use by all public-school teachers. The ERC for the new normal was also released. These official electronic versions, however, can only be used for computing students' grades for every subject and for the accomplishment of SF10 which should be downloaded and accomplished separately. For the ERC, the subject teacher needs to prepare one workbook per section taught. For instance, a teacher who is handling six (6) sections should use six (6) separate workbooks. Likewise, in the accomplishments of SF10, the adviser should prepare one workbook for every student. Thus, an adviser with 50 students needs to prepare 50 copies of SF10 and save them oneby-one, bearing the name of each student in each workbook. It is quite tedious for the subject teacher and adviser. Moreover, other school forms such as School Form 9 (SF9), which was formerly called Form138, grade sheets, and summary sheets that are used for reading grades at the end of the school year, and a lot more that need to be accomplished, cannot be downloaded online. This means that the teachers need to prepare them on their own. Some teachers use the traditional method of computing and encoding students' grades.

Senior high school teachers in the Schools Division of Roxas City face challenges due to the lack of a unified automated learner's progress report program. This has led to duplication and loss of data, making it difficult for teachers to complete records and reports on time. Transitioning from a paper-based to an automated system would ensure more accurate and readily available information for decision-making. The creation of the One-Stop Progress Report Program (One-Stop PReP) addresses these issues by offering a Microsoft Excel spreadsheet equipped with formulas and macros to automate grade computation and document production. This application accommodates both the New Normal grading system and face-to-face arrangements, allowing flexibility in assessment methods. Its offline usability makes it ideal for completing students' grades and progress report forms efficiently.

The study is relevant for the achievement of DepEd's Intermediate Outcomes for Governance as one of its enabling mechanisms is to ensure that human resources are competent and continuously improving. As global technology grows, so should teachers' capability in using technology. Moreover, the research topic is timely since it is included as the priority topic in the Regional Research Agenda under Governance which is the technology utilization for the delivery of basic services. The One-Stop PReP as an automated progress report program will make it easier for senior high school teachers in the Schools Division of Roxas City to complete students' grades and relevant progress report forms, especially during this pandemic when mobilization is limited.

Computer technology is indispensable in modern society, particularly in education for tasks like completing school reports. However, many schools lack electronic systems for grading and form completion. This study initiates computerization efforts, potentially leading to online systems. End-users stand to benefit from easier grade computation and form completion. Nonetheless, evaluating the program is essential to determine its effectiveness and guide future improvements. Thus, this study aims to assess the acceptability of One-Stop PReP among senior high school teachers in the Schools Division of Roxas City during the 2021–2022 school year.

#### Literature Review

*Theoretical Foundation of the Study*. Technology Acceptance Model (TAM) theory by Fred Davis forms the basis of this study, revolving around users' acceptance and adoption of new technology. It emphasizes that users' perceptions of a system's usefulness, ease of use, and the quality of its design influence their willingness to embrace it (Sauro, 2019). Essentially, users are more inclined to adopt technology that is well-designed and offers tangible benefits (Portz et al., 2019). The theory also focuses on how individuals' inclinations towards using a specific tool are influenced by their job relevance and the performance outcomes linked to the system. If users perceive that the system effectively aids their tasks and job requirements, they are more likely to find it useful. The quality of the system's output directly impacts user acceptance; if the system enhances an individual's performance, acceptance rates tend to rise. Conversely, if the system fails to produce desirable outcomes, users' acceptance rates may decline (Hoong et al., 2017). This research is anchored in this theory as the purpose of this research is to determine the acceptability of One-Stop PReP as an automated progress report program in view of its users. The system will be assessed as to how well it will produce desirable output to enhance teachers' accomplishments of school forms relevant to students' academic progress.

**Role of Technology in Students' Academic Progress.** Technology's rapid growth has ushered in significant changes in modern society, shifting from manual processes to the widespread use of Information Communication Technology (ICT), particularly in education (Buabeng-Andoh, 2012). Grading, a vital aspect of teaching, demands fairness and accuracy (Mercado, 2017). Technology is an efficient way to automatically import, index, categorize, store, search, retrieve, manipulate, and archive electronic documents like students' grades (Chen, 1997, cited by Dellosa, 2014). Therefore, leveraging technology to support grading processes not only improves efficiency but also upholds standards of fairness and accuracy in education.

Teachers commonly use Microsoft Excel to compile students' grades, a practice accessible to anyone with the necessary skills (Magaji & Abdulkadir, 2015; Poole et al., 2013). Excel, as highlighted by Boachie (2016), offers various advantages. Firstly, it saves time due to its user-friendly interface featuring a ribbon displaying frequently used tools. Secondly, it allows easy manipulation of data, including sorting, filtering, tabulating, and calculations, readily available on the home tab. Thirdly, Excel's diverse data import capabilities streamline work by accommodating various data formats without requiring specialized conversion software. Lastly, its utilization of Visual Basic for Applications (VBA) allows customization to suit individual user needs.

**Acceptability of a Software Program.** The evaluation of software programs is crucial in determining their value and effectiveness within a learning system (Kiget et. al, 2014). Software acceptability, as one of the important aspects of software development, is a formal test based on user demands, requirements, and business procedures to assess whether a system meets the acceptance criteria or not and to let users decide whether to accept the system (Wiegers & Beatty, 2013). This process involves assessing various aspects of the software such as reliability, efficiency, accuracy, user-friendliness, and security which are related to user acceptance.

Reliability, according to Saxena and Agarwal (2017), refers to the likelihood of software not causing system failures within a specified period and under specific circumstances. It is relevant that a program will be evaluated to see if it works properly and will produce the correct output. Software flaws can result from human error, a difference between a computed, observed, or measured value and the stated value of some key reliability parameter, or both. Depending on the operating circumstances, the problem, if left unchecked, may lead to software failure (Aital & Sashikala, 2012).

Another important aspect of a software program is efficiency. Efficiency refers to the extent to which an activity achieves its goal whilst minimizing resource usage (Harvey, 2014). It is imperative to evaluate the efficiency of a program and the probability that it will perform well or achieve a result without wasting energy, resources, effort, or time. Technologies, including software programs, should boost workplace efficiency by making time-consuming tasks easier to complete.

According to Pierce (2018), accuracy refers to sensitivity to change, especially in details. A salient feature of any software program is that it is free from mistakes or errors and generates the correct output in all types of reports. Any user of a program intends to do a task without having to worry about whether the data they enter the computer will provide accurate input.

Any program user aims for a user-friendly interface as it allows for rapid application navigation and is simple for the user to grasp. User-friendliness refers to the level of tolerance built into a system that enables the user to cope with complexity and permits minor errors and variable performance on the part of the user (Meyer & Harper, 2014). Choosing user-friendly software helps ensure increased adoption of the tool that doesn't frustrate the users or make them think their job is being made harder.

As software is intertwined with all aspects of our lives, it is essential that we can trust the software. Sommerville (2021) discussed how security is one of the important attributes of the system to protect itself from accidental or incidental attacks. He also tackled some of the methodology on how to develop the system, including Rapid Application Development, prototyping, and formal methods. The researcher focused on the use of prototype method information and applied it in this study.

According to Alwahaishi and Snasel (2013), as the use of information and communication technology (ICT) expands globally, there is a need for better understanding of the factors contributing to the acceptance or rejection of information technology as it is the first step toward the solution of the problem. In assessing the success or failure of an information technology product, user acceptance is frequently a critical component and a central focus of Information Systems implementation. Moreover, the availability of information technology does not always imply acceptance. Most information system failures are caused by a lack of user acceptability.

#### **Research Questions**

This study sought to determine the level of acceptability of One-Stop PReP as an automated progress report program among senior high school teachers in the Schools Division of Roxas City for School Year (SY) 2021–2022 as a basis for continuous improvement of the program.

Specifically, this study sought answers to the following questions:

- 1. What is the demographic profile of the teacher-respondents according to sex, age, teaching experience, and educational attainment?
- 2. What is the level of acceptability of the One-Stop PReP for teachers in terms of reliability, efficiency, accuracy, user-friendliness, and security?
- 3. What is the overall level of acceptability of the One-Stop PReP for teachers when classified according to sex, age, teaching experience, and educational attainment?
- 4. Is there a significant difference between the level of acceptability of the One-Stop PReP for teachers when classified according to sex, age, teaching experience, and educational attainment?
- 5. What input can be derived from the results of the study as a basis for the continuous improvement of the program?

#### Scope and Limitation

This descriptive research was conducted to determine the level of acceptability of Onestop PReP as an automated progress report program among senior high school teachers in the Schools Division of Roxas City during the school year 2021–2022. The sample respondents of this study were the 70 out of 85 senior high school teachers in the Schools Division of Roxas City for SY 2021-2022 who were identified using the stratified random sampling.

Data in this study was gathered using the Software Characteristics Questionnaire adopted from the study of Dy, et al. (2013). The research instrument was administered online using Google Forms. Permission to use and cite the adopted instrument was observed for intellectual property and copyright protection.

The independent variables of this study were the One-stop PReP and the profile of the teacher-users, while the dependent variable was the acceptability of the program in terms of reliability, efficiency, accuracy, user-friendliness, and security.

The statistical tools that were used in the analysis of the data were frequency count, percentage, mean, and standard deviation for descriptive statistics, while t-test for independent means and One-Way Analysis of Variance (ANOVA) were used for inferential statistics. The alpha level of significance was set at 0.05.

#### Methods

#### **Research Design**

The research design used in this study was descriptive research design. It is used when information is collected without changing the environment and to obtain information concerning the status of the phenomena to describe "what exists" with respect to variables or conditions in a situation (Posinasetti, 2014). Descriptive research was chosen because it allows for the collection of information without altering the environment, aiming to depict the existing status of the phenomenon—in this case, the teachers' acceptance of the program. This methodology enables a comprehensive description of the current situation and provides valuable insights for the continuous improvement of the One-Stop PReP program.

#### **Research Participants**

The participants of this study were seventy (70) out of eighty-five (85) senior high school teachers of the nine (9) secondary schools in the Schools Division of Roxas City which were determined using the Slovin's formula. The respondents from each school were identified and selected using a stratified random sampling technique. Stratified random sampling is a technique for sampling a population that divides the population into subgroups and randomly selects units from each subgroup (Ding et al., 1996). The breakdown of the participants by schools is shown in Table 1.

District	Name of School	School ID	Population	Sample
Ι	Culasi National High School	302758	4	3
Ι	Dumolog National High School	302759	9	7
Ι	Tanque National High School	302761	13	11
II	Balijuagan National High School	302756	8	7
II	Don Ynocencio Del Rosario NHS	311704	10	8
II	Cong. Ramon A. Arnaldo HS	302757	19	15
III	Bago National High School	302755	3	3
III	Roxas City Sch. for Phil. Craftsmen	311702	15	12
III	Milibili National High School	302760	5	4
	TOTAL		85	70

### Table 1 List of Participating Schools

#### **Research Instruments**

The instruments that were used in the study were the Personal Data Sheet and

Software Characteristics Questionnaire developed by Dy et. al. (2013).

*Personal Data Sheet.* It was used to determine the personal information about the respondents relevant to the study such as sex, age, teaching experience, and educational attainment.

Software Characteristics Questionnaire. The acceptability of the One-Stop PReP was evaluated using the Software Characteristics Questionnaire, a standardized questionnaire adopted from the study of Dy et al. (2013) in their study entitled "e-DoX: DEPED Student Grade Records Management System with Implementation of Advanced Encryption Standard and PKI Infrastructure". Permission to use the questionnaire was sought from the original authors, ensuring respect for intellectual property rights. The scale consists of 25 items using a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). The test has an internal consistency of 0.82.

To describe the mean responses, the arbitrary scale below was used:

Scale	Description
4.21 - 5.00	Highly Acceptable
3.41 - 4.20	Acceptable
2.61 - 3.40	Slightly Acceptable
1.81 - 2.60	Unacceptable
1.00 - 1.80	Unacceptable

#### **Data Gathering Procedure**

The data collection process underwent three phases as follows:

#### Phase 1 (Pre-implementation Phase):

In the pre-implementation phase, the need for improvement was identified through a comprehensive assessment of the current progress report preparation and submission process of the senior high school teachers, both the subject teachers and the advisers. Challenges were understood, and goals for a unified, automated progress report system were defined. Key features were determined to meet specific needs, and program scope was outlined, including integrated forms and records. Research and development involved reviewing existing programs and gathering stakeholder feedback for alignment.

During software creation, alpha testing was conducted for quality assurance, involving IT Division, external experts, and five senior high school teachers. After alpha testing, a trial period was held with ten (10) selected teachers for feedback and adjustments. This meticulous process led to the successful development of the One-Stop PReP program, offering teachers efficient progress report preparation.

The researcher sought permission from the Schools Division Superintendent and school heads of all the participating schools before the conduct of the study. After the respondents were identified, they received a comprehensive briefing on the research objectives, with a strong emphasis on confidentiality and the exclusive use of their information for research purposes. Participants were given the autonomy to decide whether to partake in the study, and during data collection, they were afforded ample time to complete survey questionnaires while maintaining strict confidentiality. Sessions were conducted with teachers to familiarize them with the program. The pre-implementation phase occurred from June to September 2021.

#### Phase 2 (Implementation Phase):

The researcher shared the software program of the One-Stop PReP to the teacherparticipants of the different participating schools to be utilized for the entire first semester of the SY 2021 - 2022 during October 2021 to February 2022. To ensure a seamless adoption, the researcher and ICT coordinators of each school provided technical assistance to the teachers. This support was crucial in helping the teacher participants to navigate the program effectively and address any challenges that arose during its use. The collaborative effort between the researcher and the ICT coordinators highlights the importance of a comprehensive support system to facilitate successful implementation. The timeline, encompassing a significant portion of the academic year, allowed for a thorough exploration of the software's impact on teaching and learning processes. It also provided an opportunity for iterative improvements based on real-world usage and feedback from the teachers, contributing to a more refined and user-friendly educational tool.

#### Phase 3 (Post- implementation Phase):

Before utilizing the Software Characteristics Questionnaire by Dy et al. (2013), permission was diligently obtained from the authors, respecting their intellectual property rights, and ensuring ethical integrity. After securing the permission, the survey questionnaires were given to the teacher-participants using a google form to determine the level of acceptability of the program. Following the completion of the questionnaires, they were retrieved, coded, encoded, and processed by the researcher using the Statistical Package for Social Science (SPSS) software. The assessment of the respondents to the program will be highly accepted for its continuous development. The respondents were given enough time to answer the survey questionnaire with the utmost confidentiality. Then the resulting data was organized, analyzed, and interpreted. The comments and recommendations given, which were incorporated into the survey questionnaire, were consolidated, and served as the basis for continuous improvement of the program. The post-implementation phase was conducted from March to June 2022.

#### **Data Analysis**

The data that was gathered was subjected to descriptive and inferential statistics using the Social Sciences Statistical Package (SPSS) PC software. The statistical tools used in this study were as follows:

*Frequency and Percentage.* This was used to tabulate respondents' sex, age, teaching experience, and educational attainment.

*Mean.* This was used to determine the level of acceptability of the One-Stop PReP in terms of reliability, efficiency, accuracy, user-friendliness, and security.

*Standard Deviation.* This was used to determine the homogeneity and heterogeneity of the teachers' responses to the questionnaires.

*T-test for Independent Means.* This was used to determine the significant difference in the overall level of acceptability of the One-Stop PReP among senior high school teachers when classified according to sex.

One-Way Analysis of Variance (ANOVA). This was used to determine the significant difference in the overall level of acceptability of the One-Stop PReP among senior high school teachers when classified according to age, teaching experience, and educational attainment.

Descriptive data analysis was composed of the level of acceptability of the One-Stop PReP in terms of reliability, efficiency, accuracy, user-friendliness, and security; and the overall acceptability of the program as perceived by the teachers when classified according to sex, age, teaching experience, and educational attainment.

Inferential data analysis was composed of the significant differences in the level of acceptability of One-Stop PReP in terms of reliability, efficiency, accuracy, user-friendliness, and security among senior high school teachers when classified according to sex, age, teaching experience, and educational attainment.

#### **Results and Discussion**

The data used in this study was consolidated from the survey questionnaire administered to the teacher-respondents.

## Demographic Profile of Respondents According to Sex, Age, Teaching Experience, and Educational Attainment

Table 2 shows the demographic profile of the 70 teacher-respondents according to sex, age, teaching experience, and educational attainment.

In terms of sex, 22 or thirty-one percent of the respondents are male and 48 or sixty-nine percent are female. Data shows that the majority of the senior high school teachers in the Schools Division of Roxas City are females. This statistic confirms that the teaching profession is still dominated by women. According to the Civil Service Commission (CSC), female educators accounted for 84.2% of the total teacher population (Cumaya, 2012).

When classified according to age, 19 or twenty-seven percent of the respondents are below 30 years old, 30 respondents which corresponds to forty-three percent are 30 to 40 years old, and 21 respondents or thirty percent are more than 40 years old. Data revealed that most senior high school teachers are between 30 to 40 years old. The results match the study of Chin et al. (2022), showing that most educators are in the middle adulthood age range. The study also coincides with the contention of Francisco (2020) that majority of public-school teachers in the Philippines are ages 31 - 40 years old.

As to the teaching experience, nine (9) respondents or thirteen percent have three (3) years and below teaching experience, ten (10) or fourteen percent of the respondents have 4 to 6 years teaching experience, twenty-one (21) or thirty percent of the respondents have 7 to 10 years teaching experience, nineteen (19) or twenty-seven percent have 11 to 20 years of teaching experience, and eleven (11) or sixteen percent of the respondents have more than 20 years of teaching experience.

In terms of educational attainment, sixteen (16) or twenty-three percent of the respondents are bachelor's degree holder, twenty-six (26) or thirty-seven percent are at master's level, eight (8) or eleven percent are master's degree holder, nineteen (19) or twenty-seven percent are in with doctoral level, and only one (1) or one percent is doctoral degree holder. This indicates that the majority of senior high school teachers are at master's level.

#### Table 2

Category	Frequency	Percentage
Sex		
Male	22	31%
Female	48	69%
Age		
Below 30 years old	19	27%
30 – 40 years old	30	43%
More than 40 years old	21	30%
Teaching Experience		
3 years and below	9	13%
4 to 6 years	10	14%
7 to 10 years	21	30%
11 to 20 years	19	27%
More than 20 years	11	16%
Educational Attainment		
Bachelor's degree holder	16	23%
Master's level	26	37%
Master's Degree Holder	8	11%
Doctoral level	19	27%
Doctoral Degree Holder	1	1%
TOTAL	70	100%

Demographic Profile of Respondents According to Sex, Age, Teaching Experience, and Educational Attainment

## Level of Acceptability of One-Stop PReP in terms of Reliability, Efficiency, Accuracy, User-friendliness, and Security

Table 3 presents the level of acceptability of the One-Stop PReP in terms of reliability, efficiency, accuracy, user-friendliness, and security.

Data shows that the One-Stop PReP is highly acceptable in terms of reliability (M = 4.63, SD = .39), efficiency (M = 4.69, SD = .34), accuracy (M = 4.65, SD = .40), user-friendliness (M = 4.72, SD = 43), and security (M = 4.56, SD = .35). The highly acceptable reliability of the program means that the components of the program are running most of the time, it has consistency of interface and data, and it reduces the potential for data redundancy or duplication. The highly acceptable efficiency reveals that the program runs and responds immediately and properly, provides an up-to-date report, and automates reports that the user is supposed to do manually. The highly acceptable accuracy shows that the data entered the program is accurate, valid, and consistent. The content is organized in a logical manner and the program is up to date. The highly acceptable user-friendliness implies that the user interface shows correct labeling and information, and it provides buttons for easy navigation. Moreover, the color themes of the applications are pleasant and chromatically non-disturbing. The highly acceptable security shows that the program is password protected and secured, it only allows authorized people to modify data, and the information about the data is kept confidential from unauthorized access.

The result supports the study by Chua and Dyson (2011) that features of a program contribute to its performance. Explicitly identifying and documenting the properties improves the software development process, even if they are never explicitly used once they have been identified and documented. Potential benefits include obtaining a better understanding of the system under development and facilitating the communication of this understanding within the development team. What is now understood as a key advantage of acceptability-oriented computing (a more reliable system through automated compensation for errors and faults) may prove, over time, to be most important as an incentive that convinces organizations to explicitly document key system acceptability requirements. Furthermore, the highly acceptable results showed that the program can handle required tasks in real-world scenarios according to specifications.

#### Table 3

Category	Mean	SD	Description
Reliability	4.63	.39	Highly Acceptable
Efficiency	4.69	.35	Highly Acceptable
Accuracy	4.65	.40	Highly Acceptable
User-friendliness	4.72	.43	Highly Acceptable
Security	4.56	.45	Highly Acceptable
Scale	Description		
4.21 - 5.00	Highly Acceptable		
3.41 - 4.20	Acceptable		
2.61 - 3.40	Slightly Acceptable		
1.81 - 2.60	Unacceptable		
1.00 - 1.80	Highly Unacceptable		

Mean and Standard Deviation of the Level of Acceptability of the One-Stop PReP in terms of Reliability, Efficiency, Accuracy, User-friendliness, and Security

## Overall Level of Acceptability of the One-Stop PReP According to Sex, Age, Teaching and Experience, Educational Attainment

Table 4 presents the overall level of acceptability of the One-Stop PReP for teachers when classified according to sex, age, teaching experience, and educational attainment.

Data shows that the One-Stop PReP is highly acceptable for both male (M = 4.64, SD = .29) and female (M = 4.65, SD = .38) users. In terms of age, the program is also highly acceptable among teachers who are 30 years old and below (M = 4.70, SD = .34), teachers

who are 30 to 40 years old (M = 4.69, SD = .39), and teachers above 40 years old (M = 4.54, SD = .28).

For the teaching experience, the program is highly acceptable among teachers who have been in the profession for 3 years and below (M = 4.72, SD = .50), 4 to 6 years (M = 4.64, SD = .37), 7 to 10 years (M = 4.79, SD = .25), 11 to 20 years (M = 4.61, SD = .34), and for teachers more than 20 years of teaching experience (M = 4.53, SD = .24).

In terms of educational attainment, the program is highly acceptable among teachers who are bachelor's degree holders (M = 4.63, SD = .36), master's level (M = 4.58, SD = .40), master's degree holders (M = 4.67, SD = .21), doctoral level (M = 4.76, SD = .29), and doctoral degree holder (M = 4.40).

#### Table 4

Mean and Standard Deviation of the Level of Acceptability of the One-Stop PReP when Classified According to Sex, Age, Teaching Experience, and Educational Attainment

Category	Frequency	Mean	SD	Description
Sex				-
Male	22	4.63	.29	Highly Acceptable
Female	48	4.65	.38	Highly Acceptable
Age				
Below 30 years old	19	4.70	.34	Highly Acceptable
30 – 40 years old	30	4.69	.39	Highly Acceptable
More than 40 years old	21	4.54	.28	Highly Acceptable
Teaching Experience				
3 years and below	9	4.72	.50	Highly Acceptable
4 to 6 years	21	4.64	.37	Highly Acceptable
7 to 10 years	10	4.79	.25	Highly Acceptable
11 to 20 years	19	4.61	.34	Highly Acceptable
More than 20 years	11	4.53	.24	Highly Acceptable
Educational Attainment				
Bachelor's degree	16	4.63	.36	Highly Acceptable
Master's level	26	4.58	.40	Highly Acceptable
Masteral degree holder	8	4.67	.21	Highly Acceptable
Doctoral level	19	4.76	.30	Highly Acceptable
Doctoral degree holder	1	4.40		Highly Acceptable
4.21 - 5.00     Hig       3.41 - 4.20     Acc       2.61 - 3.40     Slig	cription hly Acceptable eptable htly Acceptable acceptable			

The result implies that the One-Stop PReP is generally highly acceptable among senior high school teachers regardless of their sex, age, teaching experience, and educational attainment.

The result supports the contention of Kim (2015) that software must be acceptable to the type of users for which it is designed. This means for a program to be truly effective; it must not only meet functional requirements but also be intuitive, user-friendly, and compatible with existing systems used by its target audience. This aligns with the principles of user-centered design, emphasizing the need for software to be understandable and usable by its intended users. Furthermore, the acceptance of software applications by end users is vital for their long-term adoption and utilization. When users perceive a program as useful and beneficial to their tasks, they are more likely to integrate it into their workflows, leading to increased efficiency and productivity. By meeting the needs and preferences of senior high school teachers, the One-Stop PReP program stands a greater chance of being embraced and effectively utilized in educational settings.

# Difference between the Level of Acceptability of the One-Stop PReP for Teachers when Classified According to Sex

Table 5 shows the level of acceptability of the One-Stop PReP when the teacherusers are categorized according to sex. The t-Test of independent means showed that there is no significant difference between the level of acceptability of the program between male and female users as shown by the computed p-value of .867 which is greater than the level of significance 0.05.

#### Table 5

T-Test Results on the Test of Difference on the Level Acceptability of One-Stop PReP according to Sex

Category	Mean Diff.	Std. Error Diff.	t	df	Sig. (two-tailed)
Sex	02	.090	168	68	.867

p > .05 level of significance – not significant

The result shows that the senior high school teachers have similar evaluations as to the acceptability of the One-Stop PReP regardless of their sex. This suggests that gender does not play a significant role in shaping perceptions of the program's acceptability among this demographic. This finding stands in contrast to the conclusions drawn by Burnett et al. (2016), who asserted that males generally exhibit higher proficiency and confidence in using computer software compared to females. However, it's important to note that while such gender disparities may exist in broader contexts, the specific domain of educational software usage among senior high school teachers might exhibit different dynamics.

#### Difference between the Level of Acceptability of the One-Stop PReP for Teachers when Classified According to Age, Teaching Experience, and Educational Attainment

Table 6 presents the Analysis of Variance on the difference among the levels of acceptability of the One-Stop PReP when the teacher-users are classified according to age, teaching experience, and educational attainment.

When classified according to age, the data showed that there is no significant difference among the teachers-users as shown by the computed p-value of .255 which is greater than the level of significance 0.05.

When classified according to teaching experience, the result revealed that there is no significant difference among the teacher-users based on the computed p-value of .492 which is greater than the level of significance 0.05.

When the teacher-users are classified according to their educational attainment, the result showed that there is no significant difference among the teacher-users as shown by the computed p-value of .472 which is greater than the level of significance 0.05.

#### Table 6

One-Way ANOVA Results on the Test of Difference on the Level Acceptability of One-Stop
PReP according to Age, Teaching Experience and Educational Attainment

Category	Sum of	df	Mean	F	Sig.
	Squares		Square		
Age					
Between Groups	.336	2	.168	1.394	.255
Within Groups	8.061	67	.120		
Total	8.396	69			
Teaching Experience					
Between Groups	.423	4	.106	.861	.492
Within Groups	7.974	65	.123		
Total	8.396	69			
Educational Attainment					

Western Visayas

Between Groups	.438	4	.110	.895	.472
Within Groups	7.958	65	.122		
Total	8.396	69			

p > .05 level of significance – not significant

The result implies that the senior high school teachers have similar evaluations as to the acceptability of the One-Stop PReP regardless of their age, teaching experience, and educational attainment. This means that the program can be used by senior high school teachers regardless of their age, teaching experience, and educational attainment.

The study supports the findings of Wrycza et. al. (2017) that educational attainment has no effect on the acceptance level of a software program. But the result contradicts the study of Fernandez (2016) whose findings revealed that younger individuals will accept a program more readily than older individuals but reaffirms that teaching experience has no significant impact on program assessment.

## Inputs from the Results of the Study as the Basis for the Continuous Improvement of the One Stop PReP

The result of the study shows that One-Stop PReP is highly acceptable among the SHS teachers in terms of reliability, efficiency, accuracy, user-friendliness, and security. However, based on the comments and suggestions made by the participants, some of the inputs for the continuous improvement of the program are the following: First, to have a more comprehensive and in-depth orientation about the software program. This is because it takes some time to become proficient in the various features and components of the software program. Second, it is proposed that there will be a provision for the size of the report card or SF9 to be adjustable. This is because various schools use bond papers of varying sizes when printing report cards or SF9. Lastly, it is proposed that the program include adviser collaboration between grades 11 and 12 to make grade sharing and transfer in the SF10 more convenient.

#### **Conclusions and Recommendations**

In view of the findings, the following conclusions and recommendations were drawn: The senior high school teachers in the Schools Division of Roxas City, who were the respondents of the study, can adopt an automated progress report program based on the demographic profile which shows the capacity of the teachers to go for computerization in the preparation of learners' performance report. To enhance progress report efficiency among these teachers, it is recommended to implement a comprehensive strategy. This strategy includes tailoring training sessions based on the demographic profiles of the SHS teachers, providing a user-friendly interface, involving experienced teachers as advocates, implementing continuous support mechanisms, and integrating the program into professional development initiatives.

The One-Stop PReP, as an automated progress report program, is highly reliable as the components of the program are running most of the time; it has consistency of interface and data; and it reduces the potential for data redundancy or duplication. It is considered highly accurate, which assures that the data entered in the program is valid. It is also highly efficient as it runs and responds immediately and properly, provides an up-to-date report, and automates reports that the user is supposed to do manually. Moreover, it is considered highly user-friendly because the interface shows correct labeling using buttons for easy navigation, and the color themes of the applications are pleasant and chromatically non-disturbing. Lastly, the program is highly secure as it is passwordprotected, so only authorized people can modify data, and it avoids unauthorized access. As a recommendation, to optimize the use and ensure the long-term success of the One-Stop PReP program in senior high schools, it is advised to promote comprehensive training for teachers to maximize program reliability and reduce errors, emphasize continuous system monitoring and updates for consistency and efficiency, offer periodic refresher

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courses for interface improvements and added features, establish a user support system for prompt issue resolution, and prioritize ongoing cybersecurity measures such as regular password updates and security audits.

The senior high school teachers, regardless of sex, age, teaching experience, and educational attainment, highly considered the One-Stop PReP as reliable, efficient, accurate, user-friendly, and secured. Considering the unanimous positive feedback from teachers on acceptability level of One-Stop PReP, it is recommended that educational institutions adopt and implement this automated progress report system. This will not only enhance the overall teaching experience but also contribute to streamlined administrative processes, fostering a more effective and technologically advanced learning environment.

The similarity in the level of acceptability of the program indicates that the profile of the teachers such as sex, age, teaching experience, and educational attainment, does not affect the overall acceptability level of One-Stop PReP which means that the program can be used by any senior high school teacher in computing students' grades and accomplishing other school forms related to students' progress. Hence, it is recommended to consider the One-Stop PReP program as the official system for completing school forms related to students' academic progress among senior high school teachers in SDO Roxas City.

There are valuable inputs that can be derived from the results of the study as a basis for the program's continuous improvement such as in-depth orientation on the software's features and components, the ability to adjust the size of the report cards or SF9 for printing, and adviser collaboration between grades 11 and 12 to facilitate easier grade sharing and transfer in SF10 are some of the inputs that can be derived from the results of the study as a basis for the program's continuous improvement. It is recommended to develop a similar program for elementary and junior high schools aimed at unifying form submissions, simplifying grade computation, and facilitating academic progress tracking. This initiative can be supported by establishing a division team dedicated to providing technical assistance and support to teachers in utilizing the software effectively. Additionally, supplying teachers with a video tutorial will enhance their familiarity with the program and maximize its potential. Furthermore, conducting additional research post end-user feedback incorporation will be beneficial in determining the effectiveness of the One-Stop PReP program and identifying areas for further improvement.

#### Plans for Dissemination and Advocacy

The conclusion of a research report signifies not the culmination but rather the initiation of a critical phase: the dissemination of findings to pertinent stakeholders and the advocacy for the adoption of recommended strategies. Our comprehensive plan for dissemination and advocacy employs a multifaceted approach aimed at maximizing exposure, fostering dialogue, and facilitating the implementation of the study's outcomes.

Initiating with targeted distribution, the findings and recommendations will be directly shared with school heads and senior high school teachers during School Learning Action Cells (SLAC) and In-Service Training (INSET) sessions, as well as at the Division research conference, ensuring comprehensive coverage at both school and division levels.

To broaden our reach, efforts will encompass broad dissemination, extending outreach to encompass research forums, seminars, and relevant events across various scales and settings. This inclusive approach seeks to maximize exposure and stimulate dialogue among a diverse audience regarding the implications of the study's findings.

Furthermore, our dissemination strategy adopts a multi-modal approach, disseminating findings through written reports, presentations, and online research databases. This diverse approach ensures accessibility and engagement across different platforms, catering to the preferences and needs of diverse stakeholders.

In tandem with dissemination efforts, advocacy will focus on promoting the adoption and implementation of recommended strategies to enhance progress report efficiency among senior high school teachers. Emphasis will be placed on tailored training sessions, user-friendly interfaces, continuous support mechanisms, and integration into professional development initiatives.

Moreover, advocacy will aim to promote the universality of program acceptability, encouraging widespread adoption and utilization of the One-Stop PReP program, regardless of demographic profiles. This includes advocating for its consideration as the official system for completing school forms related to students' academic progress among senior high school teachers in SDO Roxas City.

Continued improvement initiatives will prioritize leveraging study inputs for ongoing refinement of the One-Stop PReP program, including in-depth orientation on software features, adjustments for printing flexibility, and exploration of similar programs for elementary and junior high schools.

Lastly, post-implementation evaluation will assess program effectiveness and identify areas for further improvement. This iterative approach ensures ongoing refinement and optimization of the One-Stop PReP program, contributing to the continuous enhancement of educational systems. Through stakeholder engagement and advocacy for evidence-based practices, positive change can be facilitated, furthering contributions to the continuous improvement of educational systems.

#### References

- Aital, P., & Sashikala, P. (2012). Role of software reliability models in performance improvement and management. Journal of Software Engineering and Applications, 5(09), 737.
- Alwahaishi, S., & Snásel, V. (2013). Acceptance and use of information and communications technology: a UTAUT and flow based theoretical model. Journal of technology management & innovation, 8(2), 61-73.
- Batas Pambansa No. 232, Chapter 2, Section 16(3).
- Boachie, E. (2016). The Effectiveness of Microsoft Excel to Improve Students Continuous Assessment in Secondary Schools in Ghana. International Journal of Trend in Research and Development, Volume 3(4).
- Buabeng-Andoh, C. (2012). An Exploration of Teachers' Skills, Perceptions and Practices of ICT in Teaching and Learning in the Ghanaian Second-Cycle Schools. Contemporary educational technology, 3(1).
- Burnett, M., Stumpf, S., Macbeth, J., Makri, S., Beckwith, L., Kwan, I., ... & Jernigan, W. (2016). GenderMag: A method for evaluating software's gender inclusiveness. *Interacting with Computers*, 28(6), 760-787.
- Cumaya, K. (2012). Teachers' welfare, compensation, and benefits. Manila, Philippines
- DepEd (2015). DepEd Memorandum 60, s. 2015. Provision of the Deped Electronic Class Record Template. Retrieved from https://www.deped.gov.ph/2015/06/15/june-15-2015-dm-60-s-2015-provision-of-the-deped-electronic-class-record-template/
- Dellosa, R. (2014). Design and evaluation of the electronic class record for LPU-Laguna International School. Asia Pacific Journal of Multidisciplinary Research.
- Ding, C. S., Haieh, C. T., Wu, Q., & Pedram, M. (1996, November). Stratified random sampling for power estimation. In Proceedings of International Conference on Computer Aided Design (pp. 576-582). IEEE.
- Dy, R. B., Larida, M. A., & Tanguilig, B. T. (2013). e-DoX: DEPED student grade records management system with implementation of advanced encryption standard and PKI infrastructure. International Journal of Sciences: Basic and Applied Research, 11(1), 112-158.
- Francisco, A. R. S. (2020). Teachers' Personal and Professional Demographic Characteristics as Predictors of Students' Academic Performance in English. *Online Submission*, 5(2), 80-91.
- Harvey, L., 2014-20, Analytic Quality Glossary, Quality Research International, Retrieved from http://www.qualityresearchinternational.com/glossary/ on December 9, 2020.
- Hoong, A. L. S., Thi, L. S., & Lin, M. H. (2017). Affective technology acceptance model:

extending technology acceptance model with positive and negative affect. Knowledge Management Strategies and Applications, 147.

- Kiget, N. K., Wanyembi, G., & Peters, A. I. (2014). Evaluating usability of e-learning systems in universities. International Journal of Advanced Computer Science and Applications, 5(8), 97-102.
- Magaji, A. S., & Abdulkadir, S. (2015). An Excel Template for Processing Examination. Science World Journal, 22-31.
- Mercado, N. P. (2017). Design and Evaluation of Electronic Class Record in University of Perpetual Help System-Laguna. International Journal of Emerging Science and Engineering, 3(10).
- Meyer, K., & Harper, M. (1984). User friendliness. MIS Quarterly, 1-3.
- Pierce, R. (2018). Evaluating information: validity, reliability, accuracy, triangulation. Res Methods Polit, 79-99.
- Poole, G., Pace, J., Strickland, K., McKinnon, J., Dalton, H., Beery, T. A., and Williams, A. L. (2013). The Power of Social Networks: A Model for Weaving the Scholarship of Teaching and Learning into Institutional Culture. Teaching & Learning Inquiry, 49-62.
- Portz, J. D., Bayliss, E. A., Bull, S., Boxer, R. S., Bekelman, D. B., Gleason, K., & Czaja, S. (2019). Using the technology acceptance model to explore user experience, intent to use, and use behavior of a patient portal among older adults with multiple chronic conditions: descriptive qualitative study. Journal of medical Internet research, 21(4), e11604.
- Sauro, J. (2019). 10 Things to Know about the Technology Acceptance Model. Measuring U.
- Saxena, S., & Agarwal, D. D. (2017). A Systematic Literature Review on Software Reliability Estimation Model for Measuring the Effectiveness of Object-Oriented Design. International Journal of Advanced Research in Computer and Communication Engineering, 6(6).

Sommerville, I. (2011). Software Engineering, 9/E. Pearson Education India.

Wiegers, K., & Beatty, J. (2013). Software requirements. Pearson Education.

### **Financial Report**



Republic of the Philippines D epartment of E ducation REGION VI-WESTERN VISAYAS DIVISION OF ROXAS CITY City of Roxas



### SUMMARY OF EXPENSES

Basic Education Research Fund

Amount Granted	LDAAP No.	dated		Php 2990.00
Less: Expenses				
Date	Particulars	O.R No.	Amount	
12/04/2021	Travel Expenses	RER	720.00	720.00
12/04/2021	Notarial Fee	RER	100.00	100.00
01/13/2022	Snacks	RER	280.00	280.00
01/14/2022	Snacks	RER	285.00	285.00
01/30/2022	Supplies (Ink)	19770	1070.00	1070.00
01/30/2022	Supplies	RER	285.00	285.00
02/04/2022	Bookbinding	RER	250.00	250.00
Total Expenses				2,990.00
Balance				-

Prepared by:

RAISA D. SONTILLANO

Teacher II

Appendix 44

LIQUIDATIO	Serial No.:	
Period Covered		Date: 02/08/2022
Entity Name: Department of Edu Fund Cluster: General Fund	cation, SDO Roxas	Responsibility Center Code:
PARTIC	ULARS	AMOUNT
Liquidation of cash advance on Basi for the release of 1st Tranche.	c Education Research Fund	P2,990.00
Ref: ADA LDDAP No Payee: Raisa D. Sontillano Division of Roxas City Amount P2,990.00	dated	
TOTAL AMOUNT SPENT		Php 2,990.00
AMOUNT OF CASH ADVANCE PE	R DV NO. DTD.	-
AMOUNT REFUNDED PER OR NO.	DTD.	<u> </u>
AMOUNT TO BE REIMBURSED		➡ Php 2,990.00
A Certified: Correctness of the above data	B Certified: Purpose of travel/ cash advance duly accomplished	Certified: Supporting documents complete and proper
RAISĂ-Ď. SONTILLANO Teacher II	DELFA APONESTO-APELO, EdD SEPS, PRU	NORAIDA A. MALAWI AO V/Budget Officer
Signature over Printed Name	Signature over Printed Name	Signature over Printed Name
Claimant	Immediate Supervisor	Head, Accounting Unit
Date:	Date:	JEV No.:
Date.	Date.	Date:

Dear Respondent,

#### Greetings!

I am currently conducting a research study funded by the Basic Education Research Fund (BERF) titled **"The Level of Acceptability of the One-Stop PReP** (An Automated Progress Report Program) for Senior High School Teachers".

In line with the objective of this study, I would like to ask for your cooperation and help, as one of my research respondents, in answering the questions with all honesty and veracity.

Rest assured that whatever information you will provide in this study will be dealt with highest confidentiality and will be used solely for this study.

Respectfully yours,

#### RAISA D. SONTILLANO Researcher

#### Part 1: Personal Data Sheet

**Directions:** Please provide the following data by checking the appropriate boxes or by

filling in the required information.

Name (C	ptional):		
1. Sex:			
	Male	(	)
	Female	(	)
2. Age			
	Below 30 years old	(	)
	30 to 40 years old	(	)
	More than 40 years old	(	)
3. Teach	ing Experience		
	10 years and below	(	)
	11-20 years	(	)
	21-30 years	(	)
	31-40 years	(	)
	41 or more	(	)
4. Educa	ational Attainment		
	Bachelor's Degree Holder	(	)
	Masteral Level (unit earner and CAR)	(	)
	Master's Degree Holder	(	)
	Doctoral Level (unit earner and CAR)	(	)
	Doctorate Degree Holder	(	)

### Part 2: Software Characteristic Questionnaire

(adopted from the study of Rommel B. Dy, Mary Jane A. Lariday and Dr. Bartolome T. Tanguilig entitled "e-DoX:DEPED Student Grade Records Management System with Implementation of Advanced Encryption Standard and PKI Infrastructure") **Directions:** Please check the appropriate box corresponding to your answer. Do not leave any item unanswered and use the scale as your reference.

Description
Strongly Agree
Agree
Moderately Agree
Disagree
Highly Disagree

1	2	3	4	5	I. Reliability
					1. The components of the program are running most of the time.
					2. The program has consistency of interface and data.
					3. The program reduces the potential for data redundancy or duplication.
					4. The program is capable of producing backup copies of all types of data.
					5. The program is up to date.
1	2	3	4	5	II. Efficiency
					1. The program runs and responds immediately and properly.
					2. The program uses efficiency input and output needed data.
					3. The program immediately displays the available data for the user.
					4. The program provides an up-to-date report.
					5. The program automates reports that user supposed to do manually.
1	2	3	4	5	III. Accuracy
					1. The program is capable of doing correct and accurate calculations.
					2. The data entered on the program is valid and consistent.
					3. The program is error-free.
					4. Content is organized in a logical manner.
					5. The program generates the correct output in all types of reports.
1	2	3	4	5	IV. User-friendliness
					1. The user interface shows correct labeling and important information.
					2. The user interface provides buttons for easy navigation.

					3. The color themes of the applications are pleasant and chromatically non-disturbing.
					4. The programs' report and other output is easy to understand.
					5. The overall design of the program is suited to the knowledge level of the users (satisfactory user-interface).
1	2	3	4	5	V. Security
					1. The program is password protected and secured.
					2. Only authorized users are allowed to modify data.
					3. Information about the data is kept confidential from unauthorized access.
					4. The program secures important data that only the administrator account can access (disabling menu/s etc.)
					5. The program manifests protection on its entire content and structure.

Please write your comments and recommendations as a basis for the continuous improvement of the program.