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Modified Automated Grading Tool for Senior High School Advisers

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Abstract— *This study evaluates the efficacy of a Modified Automated Grading Tool in enhancing efficiency and productivity among senior high school advisers at Biabas Trade High School. Aligned with DepEd guidelines, the tool focuses on streamlining grading processes and improving information management. Results from the usability assessment indicate a unanimous and positive consensus among users. The recommendation is to sustain the implementation of the tool, supported by ongoing training and feedback mechanisms, to optimize workflow and productivity in the academic setting.*

Keywords— *Automated Grading Tool, Efficiency, Productivity Improvement, Senior High School Advisers*.

I. INTRODUCTION

Technology plays a vital role in the field of education. With rapid advancements in technology, the demand for human resources increases. Just like in school transactions involving organizing, recording, and sorting different files and documents. The time has come to find a solution that will make the activity more manageable and less time-consuming through the help of technology ("6 Ways Technology Increases Productivity," 2020). We can state categorically that all businesses have embraced what technology offers, including the Department of Education (DepEd).

Through the process and help of computerization, transactions inside and outside DepEd can be done quickly, including the computation of students' grades, and making school forms. Teachers today live in an information age that is heavily reliant on digital information (Bonfield, 2020). With the advancement of computer technology, an increasing number of schools are utilizing various grading systems, both offline and online, that can help save time on administrative tasks and free up teachers to perform other critical functions (Aldriye et al.2019). Despite the advancement brought by technology, schools such as small schools and other remote schools continue to use a manual system for recording and computing students' grades.

Grading systems are intended to incentivize accomplishment and aid in the identification of a student's problem areas. It is the most frequently utilized method for evaluating student performance, abilities, and capabilities (Lalas & Marcial, 2016). Grades are critical information for students to advance to the next grade/year level, and their accuracy is essential.

Innovation in education has made significant improvements in speeding up the grading process's efficiency in accordance with the Guidelines on the Preparation and Checking of School Forms. It is also known as DepEd Order Number 11, series of 2018. The completion and verification of school forms are essential procedures aimed at maintaining the accuracy and uniformity of learner information. These critical tasks are routinely performed at the end of each school year to uphold the quality and consistency of educational records. In this time, teachers need to have a comprehensive reading to ensure that all the school forms (SFs) of the students bearing with the Learner's Reference Number (LRN), Complete Name, Birthdate, and grades will be the same and accurate.

The school is having difficulty transferring grades between grade sheets. Grade re-checking and re-encoding takes time. Many teachers believe that the time they spend recording and computing their students' grades could be spent more productively elsewhere, such as planning lessons, conducting research, or meeting with their students. These scenarios led the proponent to make innovation that will help make the teachers work easier.

A. Project Background

The proponent behind this innovation sought to create an automated grading system that mirrored the then-current process and workflow. Nevertheless, the suggested approach eradicated the necessity for manual documentation, enabling school staff to conserve time and effort through the utilization of a system that guaranteed precise recording of grades. Additionally, it eliminated the use of hundreds of paper sheets for computerized grading, quarterly grading, and summary sheets.

Therefore, the proponent wished to alleviate teachers' workloads by removing the need for manual grade computation and recording. As the teacher's workload increased due to the increasing number of grades and student lists that had to be attended to, it became increasingly difficult for the teacher to manage them proficiently for documentation and file submission to division personnel authorities. The purpose of this innovation was to develop a workable computerized grading system that addressed these concerns and the requirement for a more consistent and efficient grading technique. This difficulty prompted the creation of an automated grading tool. This paper evaluated the effectiveness and utility of a tool developed for automated grading and the design of other school forms, emphasizing the tool's efficacy in the teaching and learning process.

B. Project Objectives

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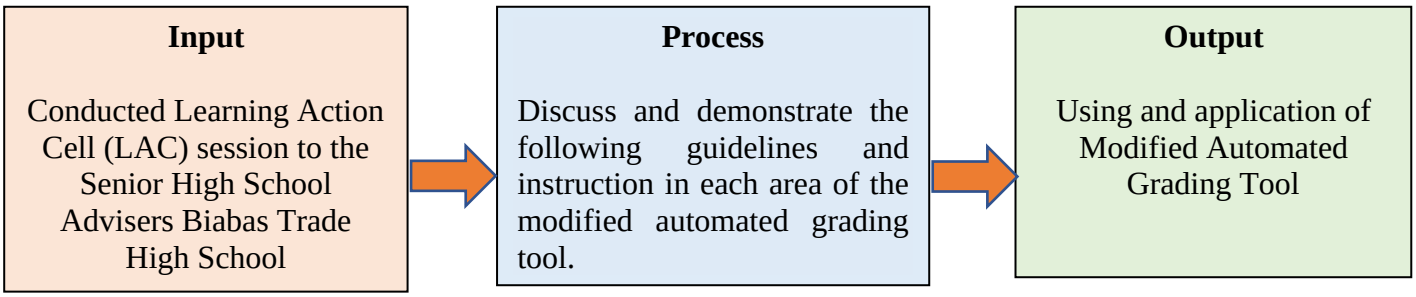
The general project objective of this study was to develop a Modified Automated Grading Tool for Senior High School Advisers. The innovative grading tool aimed to lessen teachers' time in making and preparing school forms before the end of the school year. It also aimed to provide accurate records to reduce errors. One of the tangible benefits of this innovative grading tool was cost reduction and making work easier for teachers due to the facts that making and preparing students' forms or records and processing of grades took time.

This innovation aimed to:

- develop a grading tool that will lessen the teacher's task in encoding and preparing students' records.
- develop a grading tool that will replace the current grading system, which is highly manual.
- eliminate errors in the preparation of school forms.
- eliminate the lag time between the submission of required school forms by advisers.
- create a user-friendly Automated Grading Tool that stores all the information about the student's record.
- have a localized Automated Grading Tool that the Senior High School Advisers can use.

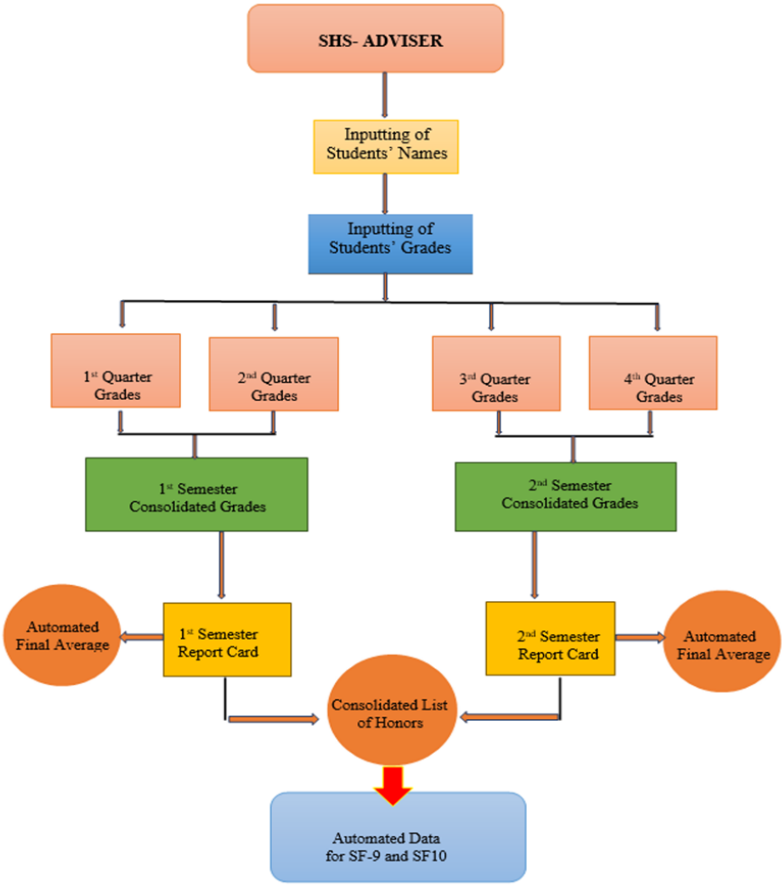
II. Project Methodology

The proponent of this innovation asked permission from the Schools Division Superintendent, District Supervisor, and school principal to conduct LAC sessions for all the Senior High School Advisers from Biabas Trade High School.



III. Results And Discussion

DATA FLOW PROGRAM



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USER INTERFACE

Result of the useability of the innovation based on the response of the senior high school advisers of Biabas Trade High School.

TABLE 1. Usability Result of the Modified Automated Grading Tool

Statements	SD (1)	D (2)	A (3)	SA (4)	Weighted Mean	Interpretation
1. I find the usage of this tool satisfactory.	0	0	1	8	3.89	Strongly Agree
2. Utilizing this tool is uncomplicated.	0	0	1	8	3.89	Strongly Agree
3. I proficiently accomplish my tasks using this tool.	0	0	1	8	3.89	Strongly Agree
4. My ability to swiftly finish tasks is enhanced by this tool.	0	0	1	8	3.89	Strongly Agree
5. I am at ease employing this tool.	0	0	1	8	3.89	Strongly Agree
6. Learning how to use the tool is straightforward.	0	0	1	8	3.89	Strongly Agree
7. I am confident that I have increased my productivity through the use of this tool.	0	0	2	7	3.78	Strongly Agree
8. Locating the necessary information was a straightforward process for me.	0	0	1	8	3.89	Strongly Agree
9. The provided information for the tool is easily comprehensible.	0	0	1	8	3.89	Strongly Agree
10. The clarity in the organization of information on the tool is evident.	0	0	1	8	3.89	Strongly Agree
11. The interface of this tool is aesthetically pleasing.	0	0	1	8	3.89	Strongly Agree
12. I enjoy the user interface of this tool.	0	0	1	8	3.89	Strongly Agree
13. The tool reduces the effort required for encoding and preparing students' records.	0	0	1	8	3.89	Strongly Agree
14. The tool facilitates timely submission of school forms for me.	0	0	1	8	3.89	Strongly Agree
15. The tool exhibits a user-friendly design.	0	0	1	8	3.89	Strongly Agree
AVERAGE WEIGHTED MEAN					**3.88**	**Strongly Agree**

Data Interpretation

Numerical Value	Interval	Verbal Interpretation
1	1.00 – 1.75	Strongly Disagree
2	1.76 – 2.50	Disagree
3	2.51 – 3.25	Agree
4	3.16 – 4.00	Strongly Agree

The results from the usability assessment of the modified automated grading tool indicate overwhelmingly positive feedback. Respondents strongly agree that the tool's usage is satisfactory, uncomplicated, and enhances task accomplishment and productivity, with each statement receiving a high weighted mean of 3.89. Additionally, features such as the interface, information clarity, and user-friendly design garnered consistent praise, all achieving a weighted mean of 3.89. The overall average weighted mean across all statements is 3.88, falling within the "Strongly Agree" category on the verbal interpretation scale (1.00 - 4.00). In summary, the data suggests a unanimous consensus among users regarding the high usability and effectiveness of the modified automated grading tool.

IV. CONCLUSION

The usability assessment of the modified automated grading tool among senior high school advisers at Biabas Trade High School reveals a unanimous and strong consensus, with users expressing high satisfaction and agreement across all aspects evaluated. These findings suggest that the modified automated grading tool is well-received, meeting the expectations of users and holding significant promise for enhancing efficiency and productivity in their daily tasks.

V. RECOMMENDATION

Based on the overwhelmingly positive feedback and strong consensus among senior high school advisers at Biabas Trade High School, the recommendation is to continue implementing and supporting the use of the modified automated grading tool. Given its high usability and effectiveness, the tool has demonstrated the potential to significantly enhance the efficiency of tasks related to grading, information management, and overall productivity.

To further optimize the tool's impact, it may be beneficial to provide ongoing training and support to users, ensuring that they can fully leverage its features. Additionally, collecting periodic feedback from users can help identify any potential areas for improvement or customization based on evolving needs.

Considering the tool's user-friendly design and its positive impact on tasks such as encoding, preparing student records, and facilitating timely form submissions, its continued integration into the academic environment can contribute to a streamlined and effective workflow for senior high school advisers.

In summary, the recommendation is to sustain the use of the modified automated grading tool, supported by ongoing training and feedback mechanisms, to maximize its positive impact on the daily tasks of senior high school advisers at Biabas Trade High School.

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