Perceived Advantages and Disadvantages of the Zero-Based Grading System of Third-Year Computer Engineering Students

Catarina Sharlene, Jaspe Leobert, Rellamas John Wyeth Emmanuel, Santos Mark Jezreel, Abelgos Aileen, Dela Cruz Catherine

Bulacan State University

DOI: https://doi.org/10.47772/IJRISS.2026.100300150

Received: 14 March 2026; Accepted: 19 March 2026; Published: 30 March 2026

ABSTRACT

This research aimed to identify the perceived advantages and disadvantages of the Zero-Based Grading System based on the perceptions of third-year Computer Engineering students at Bulacan State University. It was also intended to identify the level of awareness of the students regarding the grading system and its effects on the learning process in terms of their academic performance and motivation. The study was based on the significance of the effects of the implementation of the grading system on the students. A descriptive quantitative research design was used for the study. A survey questionnaire was used in gathering data from 30 third-year Computer Engineering students at Bulacan State University using Google Forms.

A five-point Likert scale was used for the survey questionnaire. The data was analyzed using descriptive statistics. The results revealed that the respondents have a high level of awareness about the Zero-Based Grading System. The impact of the Zero-Based Grading System on the students' learning process, especially in terms of academic performance and students' motivation, was found to be moderately significant. In terms of the advantages and disadvantages of the Zero-Based Grading System, the respondents were able to agree that the system can help in promoting accountability and time management in academic performance. The disadvantages were given the highest rating by the respondents, indicating that students face a lot of academic stress and burden, especially those who have different learning abilities. The study revealed that the Zero-Based Grading System has a high level of significance in the academic life of the respondents. The disadvantages were given a higher rating than the advantages. The study concluded that although the Zero-Based Grading System is advantageous in promoting transparency and objectivity in academic performance, its implementation should be enhanced in a way that lessens its negative effects on students' motivation.

Keywords: Zero-Based Grading System, academic performance, student motivation, perceived advantages, perceived disadvantages.

INTRODUCTION

In colleges and universities, grading systems are essential for judging how well students do and helping them grow academically. In the Philippines, DepEd implements a grading system that uses grade transmutation. As educational standards continue to rise, universities explore alternative grading approaches to promote fairness, accountability, and meaningful learning outcomes. Zero-Based Grading (ZBG) is an innovative academic evaluation method that focuses solely on students' raw scores without grade transmutation (eduTinker, 2023). Bulacan State University (BulSU), one of the known universities in the Philippines, adopts the zero-based grading system policy on its premises (Alba, 2025). The adoption of Zero-Based Grading aims to encourage discipline, timely submission of academic requirements, and accurate reflection of student performance.

Although the main goal is to promote fairness to every student, the application of Zero-Based Grading at Bulacan State University has raised concerns from the students. The absence of grade transmutation penalizes the minor mistakes of students, which could be the reason for low grades. According to the survey conducted by BulSU SG Research and Development, 7 out of 10 students received a grade that is ineligible for Latin honors. Sensing form results state that the implementation of the Zero-Based Grading system affects the students negatively.

The researchers want to assess the perceived advantages and disadvantages of the Zero-Based grading system of 3rd Year Computer Engineering Students at Bulacan State University. This study seeks to determine if the application of the Zero-Based approach is effective to the university's system as of now. Furthermore, raising awareness about the effects of Zero-Based grading may help students to adopt a more strategic and effective approach to address different academic challenges. The findings of this study will serve as a basis for developing actionable recommendations.

Research Objectives

This study investigates how third-year Computer Engineering students at Bulacan State University view the Zero-Based Grading System including its benefits and drawbacks. The research has two main goals which are to:

- The research will establish what third-year Computer Engineering students know about the Zero-Based Grading System.
- The study will evaluate how Zero-Based Grading System affects academic performance of students.
- The research will evaluate how Zero-Based Grading System impacts student motivation.
- The research will identify what students consider as advantages of the Zero-Based Grading System.
- The research will identify what students perceive as disadvantages of the Zero-Based Grading System based on their experiences with pressure and workload and assessment methods.
- The study will provide recommendations which will enhance how Computer Engineering courses use the Zero-Based Grading System.

METHODS

The methodology used in this study is primarily quantitative and descriptive in nature. Specifically, the researchers employed the following approaches:

Research Approach: Quantitative research was used to gather and examine numerical information which students from their third year of Computer Engineering program perceived as benefits and drawbacks of the zero-based grading system.

Participants: A study was conducted with 30 third-year Computer Engineering students from the College of Engineering at Bulacan State University who served as participants. The respondents were selected based on their availability and willingness to answer the survey questionnaire.

Data Collection Instruments: The researchers used a structured questionnaire which they developed to collect their data. The instrument was created using Google Forms to facilitate efficient online data collection. The questionnaire included structured response scales to measure students' perceptions regarding the advantages and disadvantages of the zero-based grading system.

Validation: The survey instrument passed evaluation and validation procedures which qualified reviewers used to evaluate its clarity and relevance and its alignment with study objectives. The team used feedback to make essential changes before they sent out the questionnaire to respondents.

Data Processing and Analysis: The collected data were organized and statistically analyzed using descriptive statistics, particularly frequency counts and percentages. The researchers employed statistical tools to discover patterns and create a summary of the perceived benefits and drawbacks which people found in the zero-based grading system.

Ethical Consideration

The research design and procedure used in the study followed the established standards for research among third-year students of the Bulacan State University, specifically the Computer Engineering course. Before the actual conduct of the study, the respondents were informed of the objectives and purposes of the study, and they were

asked to voluntarily participate in the study, in accordance with the standard that the consent of the respondents should be freely given and informed, in accordance with the provisions of the Republic Act 10173, also known as the Data Privacy Act of 2012.

RESULTS AND DISCUSSION

Table 4.1 Awareness of the Zero-Based Grading System

Awareness Statements	Mean	Interpretation
1. I can monitor my grades and academic progress in the grading system.	3.78	High Effect
2. I understand how my grades are computed using Zero-Based Grading System.	4.48	Very High Effect
3. I am aware how each component of the grading system contributes to my final grades.	4.15	High Effect
Overall Mean	4.14	High Effect

The table above indicates the level of students' awareness regarding the zero-based grading system. The respondents' level of awareness is high (overall mean = 4.14, high effect). Students' understanding of the computation of grades is the most highly rated indicator (M = 4.48, Very High Effect), which indicates that most students are well aware of the computation process.

The high effect level is also assigned to the other indicators, which are monitoring progress (M = 3.78) and understanding the influence of grading factors on the final grade (M = 4.15). The results indicate that students are well-informed and able to monitor their influence on their grades, which indicates a profound level of understanding of the grading system's functionality.

Table 4.2 Influence of the Zero-Based Grading System on Student Learning (Academic Performance and Motivation)

Influence Statements	Mean	Interpretation
1. I feel motivated to perform better under the Zero-Based Grading System.	2.85	Moderate Effect
2. I feel motivated to improve my academic performance.	3.63	High Effect
3. I feel motivated to put more effort into my academic tasks.	3.70	High Effect
Overall Mean	3.40	Moderate Effect

The table above shows the perceived influence of the Zero-Based Grading System on students' learning and motivation. The results indicate an overall moderate effect (Overall Mean = 3.40). Among the indicators, students report high motivation to exert more effort in academic tasks (M = 3.70, High Effect) and high motivation to improve academic performance (M = 3.63, High Effect).

However, the lowest-rated indicator is motivation to "perform better under the system itself" (M = 2.85, Moderate Effect). This pattern suggests that while students remain driven to improve and work harder, their motivation may be directed more toward academic success in general rather than toward the grading policy as a motivating factor.

Table 4.3 Perceived Advantages of the Zero-Based Grading System

Advantages Statements	Mean	Interpretation
1. Encouraged to work harder and take responsibility for performance.	3.78	High Effect

2. Develop discipline, accountability, and better time management.	3.63	High Effect
3. Motivated to meet higher academic standards and improve knowledge/skills.	3.63	High Effect
4. Become more actively involved in learning through tasks/activities.	3.48	High Effect
5. Grades are based on actual performance and outputs, making the system clear/objective.	3.93	High Effect
Overall Mean	3.69	High Effect

The table above illustrates the advantages of the Zero-Based Grading System. Overall, the respondents identified the advantages at a High Effect level (Overall Mean = 3.69). The highest rated advantage is that the system is based on actual performance and outputs, and hence it is clear and objective (M = 3.93, High Effect). The second highest rated advantage is that the system encourages one to be responsible for one's performance and that it enhances discipline, accountability, and time management (M = 3.78). The third highest rated advantage is that the system motivates students to meet high academic standards (M = 3.63) and that it encourages students to get actively involved in tasks and activities (M = 3.48). The advantages show that students acknowledge the importance and value of the system in that it enhances accountability and performance.

Table 4.4 Perceived Disadvantages of the Zero-Based Grading System

Disadvantages Statements	Mean	Interpretation
1. I experience pressure in improving my academic performance under the system.	4.48	Very High Effect
2. I find it difficult to comply with all requirements to earn a good grade.	4.07	High Effect
3. I find it hard to keep up with the standard of the Zero-Based Grading System.	4.07	High Effect
4. The system requires me to complete more academic tasks and activities.	4.30	Very High Effect
5. The system is unfair to students with different learning capabilities and situations.	4.30	Very High Effect
Overall Mean	4.24	Very High Effect

The table illustrates the perceived disadvantages of the Zero-Based Grading System. The findings indicate a very high perceived disadvantage (Overall Mean = 4.24, Very High Effect), which reflects the students' concerns. The most concerning issue is the pressure students feel in trying to improve their performance in academics because of the system (M = 4.48, Very High Effect). Two other issues are also of Very High Effect: the system demands more academic tasks and activities (M = 4.30) and the system raises concerns about equity for students with different learning capabilities and situations (M = 4.30).

However, the difficulty in complying with the requirements (M = 4.07) and the pressure to keep up with the standards (M = 4.07) are still at the High Effect level.

Table 4.5 Summary of the Perceived Significance of the Zero-Based Grading System

Dimension	Overall Mean	Interpretation
Awareness of Zero-Based Grading	4.14	High Effect
Influence on Student Learning (Academic Performance & Motivation)	3.40	Moderate Effect
Perceived Advantages	3.69	High Effect

Perceived Disadvantages	4.24	Very High Effect
Grand Mean	3.87	High Effect

The above table summarizes the overall perceived significance of the zero-based grading system on students' academic experience. The findings indicate a high effect overall (grand mean = 3.87). In terms of the dimensions, the perceived disadvantages have the highest overall mean (M = 4.24, very high effect), emphasizing that students perceive the system most in terms of pressure, workload, and equity. Conversely, students' awareness of the system is high (M = 4.14, high effect), suggesting that students are well aware of the system. The perceived advantages are also rated high (M = 3.69, high effect), reflecting that students are well aware of the system's transparency, accountability, and performance-orientated aspects. Nevertheless, the influence on student learning is only at a moderate effect level (M = 3.40), suggesting that students' motivational aspects are mixed, despite the enhanced effort and performance-orientated aspects.

In general, the findings suggest that while the grading system is well understood and appreciated for its structure and objectivity, students experience stronger and more immediate challenges than benefits.

SUMMARY OF FINDINGS

This study examined the perceptions of third-year Computer Engineering students at Bulacan State University regarding the Zero-Based Grading System. The findings of the study show that the students generally demonstrated an understanding of the Zero-Based Grading System and recognized that the grades they received were based on their actual output and raw scores in each course. Additionally, the students recognized that the Zero-Based Grading System encouraged desirable characteristics and behaviors, such as responsibility, discipline, and time management. However, while the system had a moderate effect on student learning, it did not have a strong effect on enhancing students' motivation.

A dominant pattern in the findings is the strength of the disadvantages perceived by the students. Compared with the advantages, the disadvantages were felt more strongly by the respondents in this survey. Students reported feeling pressure to improve their grades, difficulty in meeting the requirements of their education under this standard, increased academic demands, and unfairness in relation to the differing capabilities of each student. Thus, while students may appreciate the objectivity of the Zero-Based Grading System, they also experience it as more demanding and stressful than motivating.

The findings of this research project indicate that the Zero-Based Grading System does provide a clear and accurate means of evaluating students' performance in education, but its value can be better understood in light of these findings. Based on these results, future pedagogical standards at the university should ensure that, while the accuracy and transparency of student grading are preserved, other factors related to the student and the overall educational experience are also addressed and balanced in order to improve both the learning experience and students' needs, motivation, and well-being.

CONCLUSION

The findings of the study shows it can be concluded that third-year Computer Engineering students of Bulacan State University are all aware of the implementation of Zero-Based Grading System. These findings also suggest that the Zero-Based Grading System encourages students to be responsible for their own learning and to strive to master the course outcomes. However, the system may not have a positive impact upon students' motivation to learn, as some students expressed feeling of pressure and anxiety over their coursework due to the lack of a base grade for students to start with. However, the system also has its own disadvantages. For instance, students may feel pressure and stress with the workload and outcomes of the grading system, especially if they are not capable of attaining the same level of knowledge as others in their classes, regardless of the system's benefits of accountability and objective assessment of students. Therefore, these findings suggest that while the Zero-Based Grading System is effective in its implementation into secondary education classrooms, considerations must be made regarding student motivation, student well-being, and differing learning circumstances of each student in order to meet future standards for higher education classrooms within the university itself.

RECOMMENDATION

Based on the findings of the study, future pedagogical standards at the university should not only maintain the transparency and accuracy of the Zero-Based Grading System, but also consider fairness, academic support, flexibility, and the overall well-being of students. Support transparent grade monitoring by regularly updating grades and ensuring that students are provided with clear grade explanations. Improve student motivation strategies by incorporating goal-related activities, recognition of student progress, and the use of real-world applications in class. Engage in active learning strategies by continuing task-based and participative activities that enhance student engagement. Offer structured academic support through consultation hours, requirement guidelines, and workload distribution to assist students in meeting course requirements. Enhance instructional support by providing rubrics, sample outputs, and learning guides to assist students in achieving academic standards. Enhance academic support services through tutoring, formative assessments, and consultations to further improve student performance and motivation. Furthermore, to address the challenge of academic pressure indicated in the results, implementing policy alterations that incorporate a grace period for late assignment submissions and providing recovery options within a module would be beneficial. These modifications can help create a more favorable learning atmosphere.

Biographical Note

The authors are affiliated with the Computer Engineering program of Bulacan State University. This study discusses the perceived advantages and perceived disadvantages of the Zero-Based Grading System on the students of Bulacan State University.

REFERENCES

1. Alex, P. (2024, November 19). Time to pull the plug on traditional grading? Education Next. https://www.educationnext.org/time-to-pull-plug-on-traditional-grading-supporters-say-mastery-based-grading-could-promote-equity/
2. Alba, J. (2025, September 28). Bulacan State University adopts zero-based policy for students. Medium. https://medium.com/@jenilealba/bulacan-state-university-adopts-zero-based-policy-for-students-0cdedbebca24
3. Bouchrika, I. (2026). What is mastery learning model? Definition, principles, and examples for 2026. Research.com. https://research.com/education/what-is-mastery-learning#1
4. Bridges Transition Model | Research Starters | EBSCO Research. (2021). EBSCO. https://www.ebsco.com/research-starters/business-and-management/bridges-transition-model
5. eduTinker. (2023, December 18). Zero-based grading system - eduTinker. eduTinker. https://edutinker.com/glossary/zero-based-grading-system/
6. Green, C. A., West, C., & Delahunty, J. (2022). [Book Review] Ungrading: Why Rating Students Undermines Learning (and What to do Instead), edited by Susan D. Blum. Teaching & Learning Inquiry the ISSOTL Journal, 10. https://doi.org/10.20343/teachlearninqu.10.22
7. Minero, E. (2018, July 3). Do No-Zero policies help or hurt students? Edutopia. https://www.edutopia.org/article/do-no-zero-policies-help-or-hurt-students/
8. Singh, S. (2024, December 17). What is Descriptive Research? Definition, Methods, Types and Examples | Researcher.Life. https://researcher.life/blog/article/what-is-descriptive-research-definition-methods-types-and-examples/
9. Sreekumar, D., & Sreekumar, D. (2025, February 13). What is Quantitative Research? Definition, Methods, Types, and Examples. Researcher.Life. https://researcher.life/blog/article/what-is-quantitative-research-types-and-examples/
10. The Bullhorn. (2024, December 9). The cost of settling for less: Perils under a zero-based grading system [Editorial]. Medium. https://medium.com/@bullhornxpress/editorial-the-cost-of-settling-for-less-perils-under-a-zero-based-grading-system-f649d38b9894
11. Townsley, M. (2019). Considering standards-based grading. Journal of School Administration Research and Development, 4(1), 35-38. https://doi.org/10.32674/jsard.v4i1.1941
12. Guskey, T. R. (2015). A century of grading research: Meaning and value in the most common educational measure. https://tguskey.com/wp-content/uploads/RER-16-Research-on-Grading.pdf

13. Kjærgaard, A., Buhl-Wiggers, J., & Mikkelsen, E. N. (2023). Does gradeless learning affect students' academic performance? A study of effects over time. Studies in Higher Education, 49(2), 336-350. https://doi.org/10.1080/03075079.2023.2233007
14. Schinske, J., & Tanner, K. (2014). Teaching more by grading less (or differently). CBE-Life Sciences Education, 13(2), 159-166. https://doi.org/10.1187/cbe.14-03-0054