Exploring the effects of Home Assignment Performance : A study of government Lawngtlai College Students

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Abstract:

This study meticulously investigates the multifaceted factors influencing the academic performance of students in the arts stream at a small government college located in Lawngtlai. Employing the ordered probity method, we analyzed various variables that, to date, have not been thoroughly examined in prior research paradigms. The classification of exercises presented in our findings indicates considerable positive impact on student's academic outcomes, suggesting that pedagogical strategies tailored to the unique context can yield beneficial results.

A significant contribution of this research lies in its detailed examination of performance across distinct sub-groups, specifically comparing male and female students. This comparative analysis highlights variances that may inform tailored educational interventions. Furthermore, our findings reveal that a teacher's Grade Point Average (GPA) and their level of professional experience correlate positively with student learning outcomes, underscoring the importance of educator qualifications in shaping academic success. Overall, this study not only enriches the existing literature on academic performance among arts students but also provides actionable insights for educators and policy makers aiming to enhance educational efficacy in similar settings.

Keywords : Teacher Involvement, Academic Performance, Home assignment, Education.

INTRODUCTION

The impact of assignments on the academic record of students at Government Lawngtlai College presents a significant area of exploration for both educators and academic administrators. The case study aims to investigate the correlation between assignment completion, quality of work submitted and the overall academic performance of students enrolled in various programs at the institution.

In this paper, we will analyze a range of factors, including the frequency and relevance of assignments, the subjects in which they assigned, the mechanisms employed for assessing student submissions. Additionally, we will evaluate the student's perceptions of assignments, including their perceived challenges and benefits, which may influence their engagement and motivation.

Furthermore, data will be collected through surveys and academic records to quantify changes in grades before and after assignments are submitted, thereby providing a clearer picture of their influence on academic outcomes. Ultimately, this study seeks to contribute valuable insights into how assignments can be strategically utilized to enhance students learning experiences and improve their educational achievements, offering recommendations that align with best practices in pedagogy.

In this article, we undertake a comprehensive examination of the effect that graded assignments exert on the test results of students enrolled in core courses across nine (9) distinct disciplines. In recent years, researchers have extensively explored various methodologies aimed at enhancing student learning outcomes, particularly within the field of economics. (Anderson, Benjamin & Fuss, 1994; Arias & Walker, 2004; Borg & Shapiro, 1996; Greene, 1997; Jensen & Owen, 2001). These scholarly investigations have predominantly concentrated on numerous factors such as class size, personality types, verbal abilities, gender differences and subject preferences, all of which potentially influence academic performance.

However, it is noteworthy that one of the less frequently scrutinized issues in the educational literature pertains to the impact of graded assignments on student achievement. Despite the increasing recognition of problem sets as a vital component of instructional strategies, the ramifications of these graded tasks remain inadequately understood. Graded assignments serve as a motivational tool, as the grades accrued can significantly influence student's efforts toward mastering the material, thereby ostensibly leading to enhanced test performance.

Nevertheless, it is imperative to acknowledge that the implementation of graded assignments incurs certain costs for both instructors and students. Instructors must allocate substantial time for grading these assignments and providing constructive feedback, which ultimately affects their ability to engage on other essential educational activities.

For students, they may need to forego other more efficient learning processes and methods in order to spend time on graded assignments (GeideStevenson, 2009). Therefore, it is necessary to consider whether and to what extent graded assignments are beneficial to students.

Although numerous studies have diligently explored the impact of homework on student achievement at the collegiate and university levels, it is noteworthy that only a limited number of investigations have tackled this significant issue within the specific context of college life. A comprehensive review presented by Cooper in 1989 effectively synthesizes findings from various studies focusing on the implications of homework for academic achievement in both elementary and secondary educational settings. Utilizing an ordinary least squares regression analysis, the seminal work concluded that the motivation to engage in homework activities positively correlates with enhanced exam performance among college students. Interestingly, the research also noted that students who exhibited exemplary performance in previous examinations tended to show a diminished reliance on home assignments.

A pivotal contribution of the present paper is its exploration of the effects of homework on the academic performance of diverse groups of students, encompassing both male and female participants. By examining these differences, the study aims to provide a more nuanced understanding of how homework influences academic outcomes across gender lines, thereby contributing valuable insights to the ongoing discourse surrounding educational strategies and student success in higher education.

DATA AND METHODOLOGY

Data: The data utilized for this scholarly study was collected from a cohort of 180 students enrolled in various bachelor degree programs at the esteemed Government Lawngtlai College, a modest undergraduate institution affiliated with Mizoram University. This data was gathered during two distinct time frames: the pre - Choice Based Credit System (CBCS) period in 2015 and the post – CBCS implementation in the academic year 2020.

Throughout the survey administration, it became evident that the students exhibited a notable enthusiasm toward participating in the study. We took the initiative to thoroughly elucidate the purpose and significance of the survey to the students. During the survey process, we remained accessible to address any queries or clarifications posed by the participants. This proactive engagement ensured that the students comprehensively understood each survey question, fostering an environment of clarity and confidence in their responses. This attentiveness not only enhanced the quality of the data collected but also contributed to a more enriching academic experience for the participants, thereby reinforcing the study's overall credibility and reliability.

Model Specification

We focus on the impact of graded homework assignments on the probability of a student receiving a specific grade in Nine (9) different subject courses. The model is modified accordingly for the suitability of the present study:

$$Grade = \beta 0 + \beta 1\ Assignment + \beta 2\ Student\ Gender + + \beta 3 GPA ++ \beta 4\ Experience$$

Where β0 stands as total mark obtained

β1 as assignment mark
β2 as student gender
β3 as grades
β4 as teachers experienced

The dependent variable Grade is an index of average grade that students received in their midterm examinations for a course. In the above formulation, student characteristics are represented by gender, and cumulative GPA. Course characteristics are represented by the level of the course, whether first, second or third year. Faculty characteristics are represented by teaching experience and gender of the faculty member teaching a particular course.

The implementation of graded assignments as a fundamental course requirement serves to significantly enhance student motivation and engagement. When students perceive that their effort in completing assignment is linked to their overall performance, they are more likely to dedicate time and energy toward studying and fulfilling these tasks. Consequently, this heightened commitment often translates into improved academic grades. Additionally, when the content of assignments is intricately connected to the examination questions, students who diligently complete these assignments stand a greater chance of excelling in tests, as their preparation is reinforced through practical application.

Moreover, students may exhibit increased enthusiasm for participating in class discussions and activities if they recognize that such involvement directly contributes to their performance on assignments. Active participation not only fosters a deeper understanding of the material but may also yield independent benefits for their course grades.

In summary, there is a strong expectation that graded assignments will exert a favorable influence on students overall course grades. The independent variable of graded assignments serves as a crucial parameter, indicating whether students are subject to such academic requirements. Lastly, the cumulative Grade Point Average (GPA) acts as a reliable proxy for assessing a student's capabilities, suggesting that individuals with higher GPAs are likely to display superior class performance. GPA is a continuous variable measuring the cumulative GPA attained by the student.

The content and difficulty associated with various levels of academic courses significantly differ and these variations inherently influence the grades students attain. The levels of courses under consideration encompass

three distinct categories: First Year, Second Year and Third Year. It is anticipated that the academic level of a course will have a consequential impact on students' academic performance, as reflected in their final grades.

In conjunction with course levels, faculty characteristics also play a critical role in shaping student outcomes. Research suggests that faculty members with greater years of teaching experience tend to enhance their effectiveness and productivity in the classroom. Consequently, it can be inferred that students are likely to perform better in classes instructed by faculty possessing extensive teaching backgrounds. The independent variable, experience, is quantitatively measured as a continuous variable representing the number of years a faculty member has engaged in teaching.

Furthermore, the dependent variable, grades, is characterized as ordinal, prompting the study to employ an ordered probit model for estimating the proposed model outlined in equation1. The ordered probit model is particularly advantageous for determining the probabilities associated with students receiving specific grades within each course, thus providing valuable insights into the educational dynamics at play.

The model can be expressed in the following form:

$$y_i^* = x_i + y_i$$

where y_i^* is the grade of the dependent variables in the model. Where the 'x_i' is the variables after CBCS, and the 'y_i' is the pre CBCS results. The observed ordinal grades are given by 'y_i', which takes the values of 0, 1, 2, or 3.

Results of the regressions appear in Tables 1 of the two time frame, 2015 and 2020. The results show that, as expected, the graded assignment in a course is associated with higher letter grades for students in any particular course. To check for a possible multi co linearity problem, the study used the step-wise regression method and did not find any presence of problems.

Table 1: Mark obtained by students showing in percentage

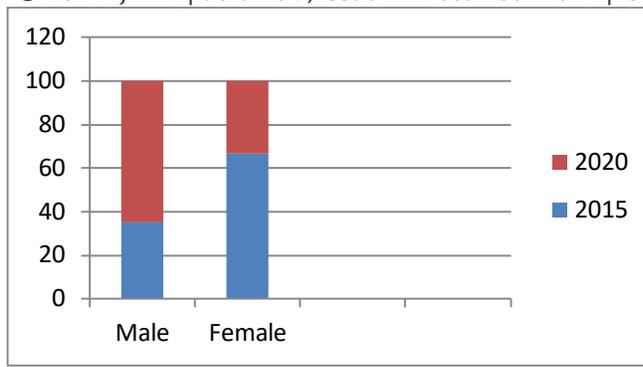|	Male Students	Female Students
Without Assignment (2015)	35.3	64.7
With Assignment (2020)	66.7	33.3

Table 1: compares mean grades of students who had, or did not have, assignments included as part of their final grade. The results suggest that students with assignments have significantly higher mean marks than those without assignments.

Table 2: Final Results of Students for the academic year of 2015 and 2020

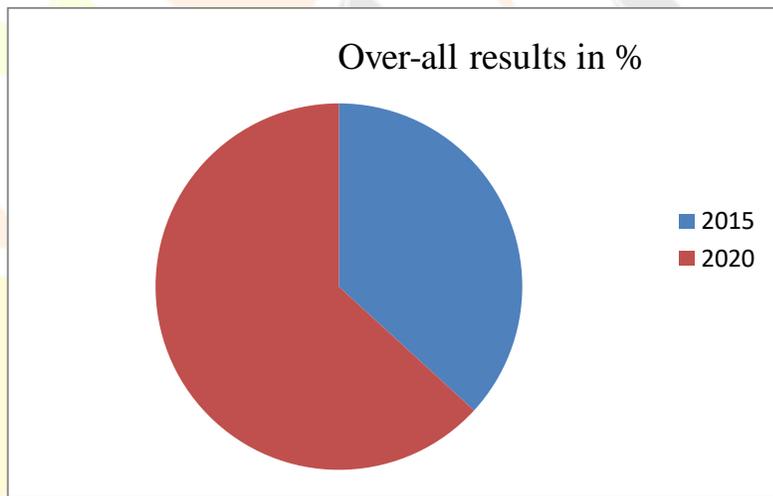| Academic Year of two time Frame	Over-all results in percentage
2015	25.37
2020	43.55

Table 2 provides the results of Ordered Probity regression. It shows the results of regression using the overall sample. It suggests that the graded assignments had significant positive effects on grade. The model also shows that students with higher GPA earned higher grades.

The data show that with respect to undergraduate attributes, students in CBCs courses with required attributes perform better than those in pre-CBCS courses. The pass rate is much higher for her CBCS courses than for pre-CBCS courses. From the data above, it is clear that a small sample of assignments has a large impact on student academic performance. It was also found that the assignment helped the students to become more organized in class and to acquire an understanding of the subject matter.

Findings:

The reasons why various attributes significantly influence a student's academic performance can be elucidated as follows.

- Student regularity: Consistent attendance plays a crucial role in enhancing a student's comprehension of the subject matter. When students attend classes regularly, they are afforded the opportunity to engage actively in discussions, absorb the instructional material effectively and participate in practical exercises that reinforce learning. The act of assigning tasks, which necessitates attendance, further solidifies their understanding and positively correlates with improved academic results.

- The assignment methodology employed by the teacher: The pedagogical strategies employed by teachers in assigning coursework are vital for enhancing student knowledge. A well-structured assignment approach encourages students to engage with various reference materials, fostering comprehensive research skills. This method not only requires students to analyze and synthesize information but also reinforce their educational foundation through writing and critical thinking exercises related to the topic.

- Competitiveness: The intrinsic motivation derived from a competitive learning environment often serves to enhance student performance. Recognizing the significance of tasks encourages students to engage more deeply, as the pursuit of excellence drives them to complete assignments diligently. This competitive spirit ultimately translates into higher levels of achievement and fosters a culture of academic excellence among peers.

CONCLUSION

In a recent study conducted at a small undergraduate college in Lawngtlai, we sought to analyze the impact of graded assignments on students' instructional performance, specifically through the lens of midterm grades across 9(Nine) distinct academic departments. To rigorously evaluate this relationship, we employed the ordered probit estimation technique, which enabled us to assess the probability of achieving various grade outcomes based on the influence of graded assignments.

Our findings reveal a significant positive correlation between graded assignments and the overall performance of the average student in the sample. Further analysis of specific subgroups indicated that the presence of graded assignments effectively motivated students, leading to an enhancement in their academic performance. Additionally, our results highlighted that Grade Point Average(GPA) had a notably favorable impact on students' grades, and that those who were taught by more experienced instructors consistently achieved higher grades.

Overall, the outcomes of this study strongly advocate for the utilization of graded assignments as a pedagogical strategy to bolster academic performance. The evidence suggests that such assignments, accompanied by constructive feedback, provide students with a valuable opportunity to deepen their understanding of course material, consequently leading to improved performance in examinations.

The primary recommendation provided by the examiner pertains to the integration of one or more graded assignments as essential components of college curricula. This advice notes that, akin to various research studies in the educational domain, the findings of this analysis are potentially marred by selection bias. Specifically, it is likely that diligent and high achieving college students are more inclined to enroll in courses that feature a greater proportion of graded coursework, which includes assignments. This phenomenon raises concerns about the representativeness of the findings, as it may not adequately reflect the performance of the broader student population.

To enhance the robustness and validity of future research examining the relationship between graded assignments and academic performance, it is advisable to employ panel data techniques. Utilizing such methodologies would allow for the application of fixed effects regression strategies, which can effectively account for unobserved individual-specific constant effects. Such an approach would enable researchers to isolate the true impact of graded assignments on student's outcomes, thus providing a more accurate understanding of their significance in the academic landscape.

REFERENCE

1. Anderson,B.,Benjamin,H., & Fuss,M.A (1994). The determinants of success in University introductory economics courses. *The journal of economic Education*,25:pp 99-119.

2. Arias J.J & Walker,D (2004). Additional Evidence on the relationship between class size and student performance. *The journal of economic education*, 35(4) :pp311-329.

3. Borg M.O & Shapiro S.L (1996). Personality type and student performance in principles of economics. *The journal of economic education*, Vol 27,Issue 1, pp 3-25.

4. Cooper, R.L (1989). Language Planning and Social Change. *Open Access Library Journal,* Vol.3 No 2.

5. Greene, W.H (1997). Asymptotic efficiency of the maximum likelihood estimator for the box-Cox transformation model with heteroscedastic disturbances. *Open Journal of Statistics,* Vol.6 No.5.

6. GeideStevenson,D (2009). Does collecting and grading homework assignments impact student achievement in an introductory economics course? *Journal of economics and economic education research*. 10 (3): pp3-14.

7. Jensen,E.J & Owen, A.L (2001). Pedagogy, gender and interest in economics. *Journal of economic education. Taylor & Francis Journals*, vol 32 (4): pp323-343.