**Week Two Project**

Team 2

Westcliff University

DATA 200

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**Literatire Review**

**Article 1:**

*Study Habits and Academic Performance among Students: A Systematic Review - RESEARCH REVIEW International Journal of Multidisciplinary*. (2021, June 6). RESEARCH REVIEW International Journal of Multidisciplinary. <https://old.rrjournals.com/past-issue/study-habits-and-academic-performance-among-students-a-systematic-review-2/>

**Summary and How it is used**

The systematic review looks into how different study habits influence students' academic results. This research reveals that students achieve better marks in school if they use regular and planned study routines. It puts these habits into categories, including planning, organization, taking notes and learning attitude, proving that students who use these methods do better. Besides, it finds that the habits will differ in how they help students according to education and culture, so there is a need to use individual strategies.

The study we conducted with linear regression to estimate students’ scores from factors such as how many hours they study, how many hours they sleep and class attendance makes this article helpful. It proves that these habits accurately reflect performance and we could make our model better by including time management competence and regular study routines. Breaking down habits into quantifiable measures gives us a better way to add more habit data and later combine it into scores which could help our predictions become more accurate. Besides, the review shows that students should receive individual and research-supported advice on their study strategies.

**Article 2:**

Tus, J., Castillo, A. I., Allag, C. F., Bartolome, A. J., Pascual, G. P., & Villarta, R. O. (2023). *The impact of study habits on the academic performance of senior high school students amidst blended learning*. <https://ejournals.ph/article.php?id=21475>

**Summary & Use :**

The paper focuses on how study habits can shape students’ grades in senior high school classes that use blended learning. Through linear regression analysis, the study found that having a consistent schedule for study, meeting deadlines and showing undivided attention during online classes strongly predicts good academic performance. Students who followed easy-to-remember routines and made adjustments to blended learning did better in their studies than those who did not.

Our project is highly relevant to this study because we are examining how exam scores depend on study time, sleeping and class attendance. It supports our position by revealing that academic performance still benefits from having fixed study routines, in any learning setting. It means we can update our model by adding variables from modern learning scenarios, like how students take part online or turn in their work. Furthermore, the study validates our use of linear regression, since it appears to accurately describe the link between how learners behave and their results. Because our project draws on this research, we are able to prove that it is up-to-date and well-supported and we also gain a better understanding of how using different learning methods affects student success.

**Article No 3**

*A multiple linear Regression-Based approach to predict student performance*. (2020, January 3). Pr Youssouf EL ALLIOUI. <https://yelallioui.github.io/publication/2020-978-3-030-36653-7_2>

**Summary and Use**

The article explains in detail how to forecast how students will perform academically by applying multiple linear regression. They work to pinpoint the factors that create the biggest influence, including study, class attendance, a student’s background and involvement in learning, in order to predict their performance. The research explains that if irrelevant or weak variables are chosen, it can reduce the precision of the model. With regression analysis, researchers can both anticipate how candidates will perform and detect which aspect plays the greatest role in academic results.

The results from this study help our project, where we look at how things like sleep, going to class and studying affect exam scores. It makes it clear why we must select and analyze several variables to check that the model is accurate and relevant. We can improve our model by using the method in the article to determine whether each predictor is significant statistically and deleting those that don’t add much value. Furthermore, the article shows how to read regression coefficients, making it possible to advise students about the habits that most strongly influence their academic success. Consequently, our project’s science becomes stronger, allowing us to develop a better tool for predictions.