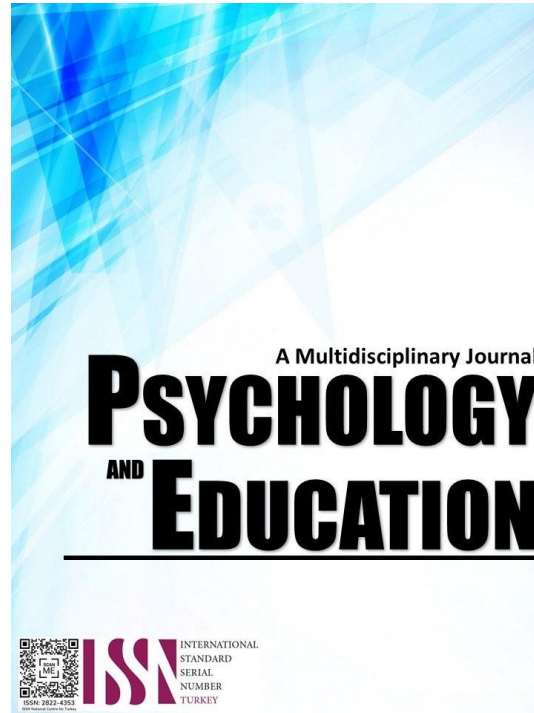


**FAMILY INCOME CLASSIFICATION ON  
STUDENTS' ACADEMIC PERFORMANCE:  
A CORRELATIONAL STUDY**



**PSYCHOLOGY AND EDUCATION: A MULTIDISCIPLINARY JOURNAL**

2023

Volume: 12

Pages: 833-836

Document ID: 2023PEMJ1105

DOI: 10.5281/zenodo.8278214

Manuscript Accepted: 2023-23-8

## Family Income Classification on Students' Academic Performance: A Correlational Study

Rhino Rienz L. Casas\*

*For affiliations and correspondence, see the last page.*

### Abstract

This correlational study examines the potential impact of family income classification on students' academic performance. By analyzing 35 samples of grade 12 students from Maguikay High School and their academic performance which is the 1st quarter average grade school year 2022-2023 gathered from their class adviser, in conjunction with information on family income obtained through the survey, the study aims to ascertain whether there exists a significant correlation between family income and academic achievement. Results show that the family income classification of the respondents is a low-income class (but not poor), the academic performance is very satisfactory and there is no significant relationship between the two variables. The findings indicate that students do not see the status of their family income as an obstacle to getting exceptional academic achievement. The fact that a student is economically disadvantaged does not automatically mean they will perform poorly academically. The research findings have the potential to inform educational policymakers and practitioners on the role of family income in maintaining students' academic outcomes, thus enriching targeted interventions aimed at promoting inclusivity and equity within the educational system. However, this correlational study precludes the establishment of causation, suggesting the need for future research with longitudinal approaches and consideration of other pertinent factors to fully comprehend the complexities of this relationship.

**Keywords:** *family income, income classification, academic performance*

### Introduction

Education costs a lot of resources such as time, money, and effort. If one wants to earn big after graduation, students should be a product from prestigious schools and these schools are not free. From Moneymax (2022), the average tuition fees of private schools in the Philippines range from P25,000 pesos to P100,000 pesos, and based on the 2018 Family Income and Expenditure Survey (FIES) of the Philippine Statistics Authority, the average monthly family income of a Filipino family during the year 2018 is P26,083 pesos thus, making it hard for average Filipino family earners to produce graduates from such schools. Although there are public schools available that are free but limited only to students with outstanding academic performance.

Parents' support plays an important role in their children's educational endeavors, especially in the financial aspect. According to the study by Adzido and et. al. (2016), when parents have solid financial status, their child has improved motivation and learning process resulting in better academic accomplishments. However, some respondents from the same study strongly asserted that family income status is not a significant predictor in saying that students perform better in academics. Students from lower family earners tend to be wise to uplift their socioeconomic

status after acquiring a college degree.

Moreover, an article from The Wing Institute at Morningside Academy (2022) reveals that those students whose families have higher financial capability continue to be more proficient in mathematics compared to students from underprivileged families across all grades. The gap in their performance continues to widen as those students from high socio-economic status families keep on improving compared to students from low socioeconomic status families. Therefore, in the current education system, when students come from lower family incomes, their math performance is also lower. It means that the financial capabilities of the family have a role in the educational outcome of students.

Some studies have been conducted on the performance of students and family income. However, this study has not been done in Maguikay High School. This study intends to correlate family income to the academic performance of Grade 12 students in Maguikay High School. The purpose is to investigate the relationship of family income status to the academic performance of the students. Students' performance is measured from their 1st quarter average grade in the school year 2022-2023.



### Research Questions

From the prior citations, family income affects the academic performance of students thus the researcher wants to find out if it is true to the students in Maguikay High School. This research specifically ought to answer the following questions:

1. What is the income classification of Grade 12 students in the school year 2022-2023?
2. What is the level of academic performance of Grade 12 during the 1st quarter school year 2022-2023?
3. Is there a significant relationship between family income and the 1st quarter academic performance of Grade 12 students?

### Methodology

This research is a correlational study. A questionnaire was given to gather the average monthly family income of the respondents. 35 grade 12 students were taken randomly as the respondents of this study. For research employing a relational survey design, the sample size should be equal to or greater than 30 (Bhide, 2022; Budiu & Moran, 2021) thus, there are sufficient respondents to attest the results of this research. These students are from Maguikay High School, Maguikay, Mandaue City, Cebu, Philippines.

The academic performance data was generated from their 1st quarter average grades for the school year 2022-2023. This data was asked from their adviser.

To analyze the correlation between the two data, hypothesis testing was done, and Pearson’s (r) Product moment of correlation or coefficient of correlation (Obaob Jr. & Abad, 2020) was used as the statistical choice and the t-test to test the significance of r. To check if there is a significant relationship between the two variables, consider the following: a.) If the positive t-value is greater than the positive critical region, then reject the null hypothesis and accept the alternative hypothesis. If the positive t-value is lesser than the positive critical region, then accept the null hypothesis and reject the alternative hypothesis. and b.) If the negative t-value is lesser than the negative critical region, then reject the null hypothesis and accept the alternative hypothesis. If the negative t-value is greater than the negative critical region, then accept the null hypothesis and reject the alternative hypothesis.

### Results and Discussion

Table 1. *Income Classification of the Respondents*

<i>Variable</i>	<i>Average</i>	<i>Income Classification</i>	<i>Verbal Interpretation</i>
Family Income	P14,874 pesos	Low - Income Class (but not poor)	Students belong to the low-income classification.

Based on the Table 1 data above, the average monthly family income of the respondents is P14,874 pesos which belongs to the Low-Income Class (but not poor) according to the income classification (See Appendix 1 for full details) cited from the Philippine Institute for Development Studies (PIDS) for a family of five (5) during the year 2015 and 2017 (Albert, et. al., 2018). This shows that most of the respondents are from the family of low-income earners which comprises 17 (49%) out of 35 respondents. Although 2 (6%) of them are from the middle middle-income class that earned both P50,000 pesos monthly, it did not affect the total average family income of the respondents. Furthermore, 10 (28%) of the respondents are considered poor with a monthly family income of P9,000 pesos less. Meanwhile, 6 (17%) are from the lower middle-income class with a range of P20,000 to P28,000 pesos. Therefore, the majority of Grade 12 students in Maguikay High School belong to low-income (but not poor) family earners that have a total salary wage between P9,000 to P19,000 pesos monthly.

Table 2. *Average 1<sup>st</sup> Quarter Grades SY 2022-2023 of the Respondents*

<i>Variable</i>	<i>Average</i>	<i>Performance Indicator</i>	<i>Verbal Interpretation</i>
Academic Performance	87	Very Satisfactory	Students have very satisfactory academic performance during the 1 <sup>st</sup> Quarter SY 2022-2023

Table 2 results revealed that the average grade of the respondents during the 1st quarter of the school year 2022-2023 is 87. According to the performance indicator (See Appendix 2 for full details) from the Department of Education (DepEd), grade 87 is in the Very Satisfactory performance which means students perform more than what they are expected to perform. It indicates that most of the respondents are performing well in their studies. About 10 (28%)



students got outstanding grades from 90 to 95, 11 (31%) got very satisfactory grades and 14 (40%) respondents belong to the satisfactory achievers. Although the majority of the respondents got satisfactory grades, the number of students that in outstanding grades affected the total average of the grades of the respondents.

Table 3. Relationship between the family income and students' academic performance

Variables	Average	Person (r)	Strength of Correlation	t-Value	Critical Region	Decision	Interpretation
Family Income	14, 874 pesos	-0.13	Negligible Correlation	-0.75	-2.0345	Accept Ho	There is no Significant Relationship
Academic Performance	87					Reject Ha	

According to the results, the strength of the correlation is negligible meaning the correlation is insignificant. “The greater the absolute value of the Pearson correlation coefficient, the stronger the relationship.” (Frost, 2023). If the value of r is nearing ±1, the strength of the correlation is strong. Likewise, if the r is nearing 0, the correlation will go weaker to no correlation.

The negative t-value is greater than the negative critical region (TV (-0.75) > CR (-2.0345)). Thus, the null hypothesis (Ho) is to be accepted and reject the alternative hypothesis (Ha). It means that there is no significant relationship between family income and the 1st quarter academic performance of Grade 12 students. Parents' financial status does not matter in raising the academic performance of their children in school (Machebe, Ezegebe & Onuoha, 2017; Morrissey, Hutchison, & Winsler, 2014), supporting the result of this study.

### Conclusion

This correlational study provides compelling evidence of the influence of family income on students' academic performance. The findings indicate that students do not see poverty as a hindrance to getting high grades. The prior citations about family income influencing the academic performance of the students were not true for the grade 12 students of Maguikay High School in the 1st quarter of school year 2022-2023. Being poor does not necessarily signify that a student also performs poorly.

While the study establishes an insignificant association

between family income and academic performance, it is essential to acknowledge that correlation does not imply causation (Schober, Boer & Schwarte, 2018; Kendra, 2022; Frost, 2023), and other variables may also play a role. By identifying potential mechanisms linking family income to academic achievement, such as access to educational resources and support systems, this study offers valuable insights for educators and policymakers to enrich effective strategies in maintaining students' educational outcomes and acknowledging a more equitable and inclusive educational environment. However, further in-depth research is warranted to establish a deeper understanding of the complex relationship between family income and academic performance and to inform evidence-based approaches that can contribute to understanding the said variables.

### References

Adzido, R. Y. N., Ahiave, E., Dzogbede, O. E. and Dorkpah, O. K. (2016). Assessment of Family Income on Academic Performance of Tertiary Students: The Case of Ho Polytechnic, Ghana. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, Vol. 6, No. 3, pp. 154–169. [https://hrmars.com/papers\\_submitted/2221/Article\\_16\\_Assessment\\_of\\_Family\\_Income.pdf](https://hrmars.com/papers_submitted/2221/Article_16_Assessment_of_Family_Income.pdf)

Albert, J. R. G, Santos, A. G. F. and Vizmanos, J. F. V. (December 2018). Defining and Profiling The Middle Class. *Philippine Institute for Development Studies Policy Notes No. 2018-18 page 2*. Rtv. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidspn1818.pdf>

Bhide, R. (2022). How Many Participants Do I Need For a Quantitative Study? [HelpToStudy.com](https://www.helpstudy.com/how-many-participants-do-i-need-for-a-quantitative-study/). <https://www.helpstudy.com/how-many-participants-do-i-need-for-a-quantitative-study/>

Budiu, R. & Moran, K. (2021). How Many Participants for Quantitative Usability Studies: A Summary of Sample-Size Recommendations. Nielsen Norman Group. <https://www.nngroup.com/articles/summary-quant-sample-size/#:~:text=If%20you%20test%20with%20too%20many%2C%20you're%20essentially%20throwing,40%20participants%20for%20a%20quantitative%20study.>

DepEd Order No. 8, Series of 2015. Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program. pg. 16.

Family Income and Expenditure Survey National and Regional Estimates. (2018). Philippine Statistics Authority. Volume 1, pg. 17. <https://psa.gov.ph/sites/default/files/FIES%202018%20Final%20Report.pdf>

Frost, J. (2023). Interpreting correlation coefficients. *Statistics by Jim*. <https://statisticsbyjim.com/basics/correlations/>

Grange, J. (December 5, 2015). Statistics Tables: Where do the Numbers Come From? *WordPress.com*. <https://jimgrange.wordpress.com/2015/12/05/statistics-tables-where-do-the-numbers-come-from/>



Kendra, C. (2022). What is a correlation? Verywell Mind. <https://www.verywellmind.com/what-is-%20correlation-2794986>

Machebe, C. H., Ezegebe, B. N. & Onuoha, J. (2017). The impact of parental level of income on students' academic performance in high school in Japan. *Universal Journal of Educational Research*, v5 n9 p1614-1620 <https://eric.ed.gov/?id=EJ1170144>

Moneymax. (updated June 22, 2022). How Much Money Should I Save for a Child's Education? Moneymax.ph. Moneyguru Philippines Corporation. <https://www.moneymax.ph/personal-%20finance/articles/cost-of-education-philippines>

Morrissey, T. W., Hutchison, L., & Winsler, A. (2014). Family income, school attendance, and academic achievement in elementary school. *Developmental Psychology*, 50(3), 741– 753. <https://doi.org/10.1037/a0033848>

Obaob Jr., Geronimo S. and Abad, Ireneo C. (2020 Edition). *Data Analysis with Ease and Confidence*. Cebu Normal University pp. 91 – 95.

Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients. *Anesthesia & Analgesia*, 126(5), 1763–1768. <https://doi.org/10.1213/ane.0000000000002864>

Statistics - T-Distribution table. (n.d.). Tutorialspoint.

The Wing Institute at Morningside Academy. (2022). How Does Math Proficiency Correlate with a Student's Socio-economic Status? Place making Group. <https://www.winginstitute.org/how-does-%20math-proficiency>

### **Affiliations and Corresponding Information**

**Rhino Rienz L. Casas**

Maguikay High School

Department of Education - Philippines