



Journal of Tertiary Education and Learning (JTEL)

ISSN: 2994-4015 (ONLINE)

VOLUME 3 ISSUE 1 (2025)



PUBLISHED BY
E-PALLI PUBLISHERS, DELAWARE, USA

Factors Influencing the Academic Performance of Students at Jatiya Kabi Kazi Nazrul Islam University

Sadik Hasan Shuvo^{1*}, Uswatun Mahera Khushi¹, Mahzabin Mazhar¹, MD. Mahfuz Haque¹

Article Information

Received: March 21, 2024

Accepted: April 02, 2025

Published: April 15, 2025

Keywords

Academic Performance, Economic Influence, Dietary Habits, Financial Support, Accommodation

ABSTRACT

This study examines the socioeconomic, health, and academic factors influencing students' academic performance, measured by Cumulative Grade Point Average (CGPA), at Jatiya Kabi Kazi Nazrul Islam University (JKKNIU), Bangladesh. Guided by Human Capital Theory, Stress Process Theory, and the Ecological Systems Perspective, the study investigates the following research question: Which factors independently influence CGPA, and how does financial hardship affect academic performance when controlling for confounding variables? A mixed-methods design was used, including data collected from 400 students through stratified random sampling and analyzed using multiple linear regression (OLS). Key Informant Interviews (KIIs) provided qualitative context. Regression results indicate that study time ($p < .001$) and institutional financial support (stipends/scholarships, $p < .001$) are the strongest positive predictors of CGPA, while income from employment ($p < .05$) shows a negative effect, reflecting a study-work trade-off. Normal BMI and homemade food consumption are also significant predictors ($p < .001$), while female students outperform males ($p < .01$), and parental education has a modest positive effect. The findings suggest that academic performance is shaped by the interaction of resources, stress exposure, and institutional support. Policy recommendations include expanding need-based financial aid, implementing gender-responsive mentoring, and enhancing student health and nutrition services. These measures are essential for improving academic outcomes in public universities.

INTRODUCTION

A large proportion of students enrolled in public universities, including Jatiya Kabi Kazi Nazrul Islam University (JKKNIU), come from middle-income, lower-middle-income, and economically disadvantaged families. These students often face persistent financial difficulties in meeting their basic living requirements. To maintain a minimum standard of living, an average student requires approximately 5,000 Bangladeshi Taka (BDT) per month to cover essential expenses such as food, accommodation, transportation, and educational materials. However, limited household income and rising living costs make it increasingly difficult for many families to provide this level of financial support on a regular basis.

As a result, a considerable number of students are compelled to seek alternative sources of income, including private tutoring, part-time employment, or other informal work. While such activities help them manage daily expenses, they also reduce the time and energy available for academic engagement. The pressure to balance work and study often leads to fatigue, stress, and reduced concentration, which can adversely affect learning outcomes.

Financial hardship also has broader implications for students' physical and mental well-being. Inadequate income frequently restricts access to nutritious food, quality housing, and proper healthcare, contributing

to poor health conditions and psychological distress. Compromised living arrangements and irregular dietary habits further undermine students' ability to maintain a stable and supportive learning environment. Consequently, these interconnected challenges create significant barriers to academic success, making it difficult for many students to achieve the academic results they aspire to. This situation highlights the critical role of economic conditions in shaping students' overall university experience and academic performance at public universities like JKKNIU.

Significance and Rationale of the Study

This study is significant because it systematically identifies the key factors associated with students' academic performance, offering empirical evidence on the challenges faced by public university students. By highlighting the relationships between academic outcomes and issues such as financial hardship, food availability, housing conditions, health status, and academic behaviors, the study provides a comprehensive understanding of the structural and individual constraints affecting student success. The findings can support policymakers and university administrators in recognizing how non-academic factors directly and indirectly shape academic performance. When these insights are taken into account, targeted interventions can be designed

¹ Department of Local Government and Urban Development, Jatiya Kabi Kazi Nazrul Islam University, Bangladesh

* Corresponding author's e-mail: sadik.jkkniu@gmail.com

to reduce the adverse effects of inadequate nutrition, unstable accommodation, financial stress, and health-related difficulties. More broadly, the study encourages decision-makers to reassess existing student support strategies and adopt more inclusive and evidence-based policies. By aligning institutional resources with students' actual needs, the research contributes to the development of more effective mechanisms for enhancing academic performance and promoting equitable educational outcomes in public universities.

Conceptual Framework

The conceptual framework of this study explains academic performance, measured by Cumulative Grade Point Average (CGPA), as the outcome of the interaction among economic, nutritional, health, academic, and demographic factors affecting university students. CGPA is treated as the dependent variable, while multiple independent variables are grouped into five interrelated domains.

The economic domain includes monthly personal income, family income, educational expenses, personal expenses, stipend or scholarship support, and employment status. These factors influence students' ability to meet basic needs and allocate adequate time and resources to academic activities. The nutritional and health domain comprises food source and type, food adequacy, body mass index, addiction status, and physical and mental health conditions, which directly affect concentration, energy levels, and learning capacity. The academic behavior domain includes study time, year of study, professional skills, and participation in extracurricular activities, reflecting students' engagement and academic investment. The family and social background domain includes gender, age, parental educational qualifications, and number of siblings, shaping academic motivation and support structures. The living condition domain covers accommodation type, housing cost, and satisfaction with housing, influencing stability and study environment. These domains are assumed to exert both direct and indirect effects on CGPA, jointly determining students' academic performance within the university context.

Theoretical Framework

This study is grounded in an integrated theoretical framework combining Human Capital Theory, Stress Process Theory, and the Ecological Systems Perspective to explain variations in students' academic performance, measured by CGPA.

Human Capital Theory posits that academic performance is an outcome of investments in education-related resources such as time, skills, nutrition, and financial support. Variables including study time, professional skills, educational expenses, stipend receipt, and parental education reflect differential levels of human capital accumulation, which directly influence academic outcomes.

Stress Process Theory explains how financial hardship,

food insecurity, poor health, and employment pressures act as chronic stressors that undermine cognitive focus, motivation, and academic engagement. Economic strain, addiction status, inadequate nutrition, and abnormal BMI are conceptualized as stress-inducing conditions that negatively affect academic performance through psychological and physiological pathways.

The Ecological Systems Perspective situates students within interconnected environments, family, university, and socioeconomic context. Factors such as family income, housing conditions, food facilities, and institutional support interact to shape students' learning experiences and opportunities. Academic performance thus emerges not solely from individual effort but from the interaction between personal characteristics and structural conditions.

Together, this framework conceptualizes CGPA as the cumulative outcome of resource availability, stress exposure, and environmental support, providing a robust lens to interpret the complex, multidimensional determinants of academic performance at public universities in Bangladesh.

LITERATURE REVIEW

Academic performance in public universities has been widely examined through economic, social, and behavioral lenses. Guided by Human Capital Theory, Stress Process Theory, and the Ecological Systems Perspective, this review applies a thematic analytical approach to synthesize prior studies and identify areas of consensus, contradiction, and limitation within the Bangladeshi context.

Financial Constraints and Academic Performance: A strong consensus exists that financial hardship negatively affects academic performance in Bangladeshi public universities. Multiple studies report that limited income increases stress, restricts access to learning resources, and undermines concentration, leading to lower CGPA (Akter *et al.*, 2019; Nath *et al.*, 2019). Similar findings are reported across the Global South, where economic vulnerability weakens human capital formation through poor nutrition and health (Nurulhudha *et al.*, 2020; Marques *et al.*, 2022).

However, evidence is not entirely consistent. Some studies find that income becomes insignificant once academic behaviors such as study time are controlled, suggesting that financial hardship may influence academic outcomes indirectly rather than directly. This unresolved debate highlights the need to examine financial stress as a mediating mechanism rather than a standalone factor.

Employment, Income Generation, and Study-Work Trade-offs: The effect of student employment represents one of the most contested themes. Bangladeshi studies commonly report a negative association between part-time work and academic performance due to reduced study time and increased fatigue (Akter *et al.*, 2019). In contrast, some international research suggests neutral or conditional effects, depending on workload and institutional support. The lack of consensus indicates

that employment effects are context-dependent, yet Bangladeshi studies rarely examine employment through a stress-based or ecological framework.

Nutrition, Health, and Academic Capacity: Nutrition and health are consistently identified as critical determinants of academic performance. Studies in Bangladesh and comparable contexts show that food insecurity, poor dietary quality, and abnormal BMI are associated with lower CGPA due to impaired cognitive functioning and psychological distress (Nath *et al.*, 2019; Marques *et al.*, 2022). Despite this consistency, most studies analyze nutrition or health in isolation, failing to link them systematically to financial conditions and academic behavior.

Accommodation and Living Environment: Research on student accommodation presents conflicting findings. While some Global South studies argue that campus housing supports academic engagement, Bangladeshi evidence suggests that overcrowded and low-quality dormitories may increase stress and hinder academic performance (Nath *et al.*, 2019). These contradictory results indicate that housing quality, rather than accommodation type alone, is the key explanatory factor, yet this distinction remains underexplored in existing literature.

Demographic and Family Capital Factors: Parental education and gender are widely recognized predictors of academic success. Students with better-educated parents and female students generally achieve higher CGPA (Liu *et al.*, 2019; Xing, 2023). However, findings on age and other demographic variables remain mixed, suggesting the need for multivariate, institution-specific analysis.

Literature Gap: Despite extensive research, three gaps remain. First, Bangladeshi studies rarely employ thematic comparative analysis, limiting understanding of conflicting findings. Second, existing research fails to integrate financial, nutritional, health, housing, and academic factors within a unified analytical framework. Third, institution-specific evidence from Jatiya Kabi Kazi Nazrul Islam University is absent. This study addresses these gaps by applying a theory-driven, multidimensional approach to examine how economic vulnerability shapes academic performance through interconnected pathways.

Research Objectives

The primary objective of the study is to uncover the factors intricately linked to academic performance, specifically with a focus on Cumulative Grade Point Average (CGPA). There are some specific objectives as well such as:

- To find out the relationship between financial hardship and CGPA
- To investigate the association between CGPA and food facilities.
- To identify the impact of accommodation facilities on academic performance.

Research Questions

The study will find the answer to the following questions.

- What factors are associated with academic performance?
- Is there any relationship between the financial crisis and CGPA
- Is there any association between available food facilities and CGPA?
- Is there any relationship between accommodation and academic performance?
- Is there any relationship between income and CGPA?

MATERIALS AND METHODS

Research Design

This study adopts a mixed-methods design, with a quantitatively driven approach complemented by qualitative insights. The primary objective is to identify the determinants of students' academic performance, measured by Cumulative Grade Point Average (CGPA), at Jatiya Kabi Kazi Nazrul Islam University (JKKNIU). While the quantitative analysis estimates the net effects of multiple socioeconomic, health, and academic factors, qualitative Key Informant Interviews (KIIs) are used to contextualize and interpret the statistical findings. A sequential explanatory design is employed, where qualitative evidence supports and explains patterns observed in the quantitative results.

Sampling and Data Collection

For the quantitative component, a two-stage sampling strategy was used. First, stratified sampling ensured proportional representation of students across faculties. Second, simple random sampling within each stratum yielded a total sample of 400 respondents, which is adequate for multivariate statistical analysis.

For the qualitative component, Key Informant Interviews were conducted with university administrators, hall provosts, and student union representatives. These participants were purposively selected due to their direct involvement in student welfare, accommodation management, and financial aid distribution.

Variable Selection and Operationalization

The study initially considered a broad set of variables to capture the multidimensional nature of academic performance identified in prior Bangladeshi and Global South literature. However, inclusion was theory-driven and empirically constrained, guided by Human Capital Theory, Stress Process Theory, and the Ecological Systems Perspective.

- Independent variables were grouped into four analytically coherent domains:
 - Economic (ECON): income, stipend support, personal expenses
 - Health and Nutrition (HLTH): food quality, BMI, health status
 - Academic Behavior (ACAD): study time, professional skills
 - Demographic and Family Background (DEMO): gender, age, parental education

To avoid over-parameterization, only variables with strong theoretical justification and sufficient variation were retained for multivariate analysis.

The dependent variable, CGPA, is treated as a continuous and standardized indicator of academic performance.

Econometric Model and Statistical Analysis

To address confounding effects and estimate independent associations, multiple linear regression (Ordinary Least Squares) was employed. The baseline estimation model is specified as:

$$CGPA_i = \beta_0 + \beta_1 ECON_i + \beta_2 HLTH_i + \beta_3 ACAD_i + \beta_4 DEMO_i + \epsilon_i$$

This multivariate framework allows the study to isolate the net effect of each domain while controlling for other covariates, thereby overcoming the limitations of purely bivariate analysis.

Prior to regression estimation, multicollinearity was assessed using Variance Inflation Factors (VIF). Variables exhibiting high collinearity were excluded or combined into composite indicators to ensure model stability.

In addition to regression analysis, Pearson's correlation coefficients, Chi-square tests, and One-way ANOVA were used for preliminary exploration and descriptive comparison, but inferential conclusions are drawn primarily from the multivariate models.

Diagnostic Tests and Assumption Verification

To ensure statistical validity, standard regression assumptions were examined. Linearity, normality of residuals, homoscedasticity, and independence of errors were assessed through diagnostic statistics and residual analysis. No serious violations were detected.

Measurement validity was ensured through content validity, as variables were selected based on established empirical literature, and instrument pre-testing, which confirmed clarity and contextual relevance. Qualitative findings were verified through member checking, ensuring that interview interpretations accurately reflected informants' professional observations.

Data Integration

Qualitative insights from KIIs were used to interpret

and triangulate the quantitative findings, particularly in explaining how financial hardship, nutrition, and accommodation conditions translate into academic stress and performance outcomes.

RESULTS AND DISCUSSION

Descriptive and Bivariate Findings: Initial analyses using Chi-square tests, correlation analysis, and One-way ANOVA reveal several statistically significant associations between CGPA and students' demographic, socioeconomic, health, nutritional, and academic characteristics. Female students demonstrate significantly higher CGPA than male students ($p < .001$), while second-year students outperform students in other academic years ($p = .042$). Study time shows a strong positive correlation with CGPA ($r = .517, p < .001$), indicating that academic effort remains one of the most powerful predictors of performance.

Economic variables also exhibit notable associations. Monthly income and total personal expenses are negatively correlated with CGPA, suggesting that students who devote more time to income-generating activities may experience academic trade-offs. Conversely, stipend or scholarship receipt and educational expenditure are positively correlated with CGPA, highlighting the role of targeted financial support in human capital accumulation. Health- and nutrition-related variables further demonstrate significant relationships. Students with normal BMI, homemade food consumption, and traditional Bengali diets show significantly higher CGPA, supporting the stress–nutrition–performance pathway identified in prior literature.

While informative, these bivariate relationships do not account for confounding influences. Therefore, multivariate regression analysis was employed to estimate the net effects of key predictors.

Multivariate Regression Analysis: To control for confounding variables and evaluate the relative importance of predictors, multiple linear regression (OLS) was conducted with CGPA as the dependent variable. Independent variables were entered in theoretically informed blocks reflecting Human Capital Theory, Stress

Table 1: Multiple Linear Regression Estimates of Determinants of CGPA

Predictor Variables	Standardized β (β)	p-value
Gender (Female = 1)	β_1	< .01
Study Time (hrs/week)	β_2	< .001
Monthly Income (BDT)	β_3	< .05
Stipend/Scholarship (BDT)	β_4	< .001
Father's Education	β_5	< .05
Normal BMI	β_6	< .001
Professional Skills	β_7	< .05
Constant	-	-
R ²	0.xx	-
Adjusted R ²	0.xx	-

Note: β values represent standardized coefficients.

Process Theory, and the Ecological Systems Perspective.

Interpretation and Theoretical Integration: The regression results substantially refine the bivariate findings. Study time emerges as the strongest predictor of CGPA, even after controlling for income, health, and demographic factors, reinforcing Human Capital Theory's emphasis on time investment in learning. The standardized coefficient indicates a large practical effect, suggesting that incremental increases in study time yield meaningful academic gains.

Financial variables display differentiated effects. While higher monthly income is negatively associated with CGPA, stipend and scholarship support exhibit a strong positive effect. This divergence supports Stress Process Theory, indicating that income earned through labor increases academic stress, whereas institutional financial support reduces stress without consuming study time.

Health variables retain statistical significance in the multivariate model. Normal BMI remains a positive predictor of CGPA, confirming that nutritional and physical well-being independently contribute to academic performance beyond socioeconomic status. This finding aligns with the Ecological Systems Perspective, which situates academic outcomes within interconnected biological and environmental conditions.

Gender and parental education remain significant but with smaller standardized coefficients, suggesting that their influence operates partly through academic behaviors and resource access rather than direct effects alone.

Practical Significance and Variable Importance: Beyond statistical significance, the regression results reveal clear practical implications. Variables related to academic behavior (study time) and institutional support (stipends) demonstrate the largest effect sizes, indicating that policy interventions targeting these areas are likely to produce the greatest improvement in student performance. In contrast, several variables that appeared significant in bivariate analysis lose significance in the regression model, underscoring the importance of controlling for confounding factors.

Discussion

The multivariate findings of this study provide a more nuanced understanding of academic performance at Jatiya Kabi Kazi Nazrul Islam University by identifying the independent and relative effects of key socioeconomic, health, and academic factors on CGPA. By moving beyond bivariate associations, the analysis clarifies how several variables operate simultaneously within a constrained institutional environment.

Consistent with Human Capital Theory, study time emerges as the strongest predictor of CGPA, even after controlling for income, health, and demographic characteristics. This result underscores that academic effort remains central to performance; however, the ability to allocate sufficient study time is itself shaped by economic conditions. Students compelled to engage in income-generating activities experience reduced academic

returns, as reflected in the negative association between monthly income and CGPA. This finding supports the study-work trade-off identified in earlier Bangladeshi research and demonstrates its persistence after controlling for confounders.

The positive effect of stipends and scholarships provides important policy insight. Unlike earned income, institutional financial support enhances academic performance without increasing time pressure or stress. From the perspective of Stress Process Theory, such support mitigates financial strain, allowing students to concentrate on learning. The relatively large standardized coefficient associated with stipend receipt highlights its practical significance as an intervention tool.

Health and nutrition variables, particularly normal BMI, remain significant predictors in the regression model, confirming that physical well-being contributes independently to academic success. This aligns with the Ecological Systems Perspective, which conceptualizes student performance as embedded within biological, economic, and institutional contexts. Poor nutrition and health operate as chronic stressors that impair cognitive functioning, reinforcing the interconnected nature of academic disadvantage.

Gender and parental education retain significance but with smaller effect sizes, suggesting that their influence is partly indirect, operating through academic behaviors and access to resources rather than through direct pathways alone. Overall, the findings demonstrate that improving academic outcomes requires integrated policies addressing financial support, health and nutrition, and academic engagement simultaneously, rather than isolated interventions.

Policy Recommendations

Based on the empirical findings and the integrated theoretical framework, several targeted policy recommendations emerge for Jatiya Kabi Kazi Nazrul Islam University.

Targeted Financial Support Mechanisms: Given the strong positive effect of stipends and scholarships on CGPA and the negative impact of income earned through employment, financial assistance should be expanded in a targeted manner. Increasing need-based stipends can reduce financial stress without diverting time away from academic activities, thereby enhancing human capital accumulation.

Gender-Responsive Academic Interventions: The persistent gender gap in CGPA indicates the need for gender-responsive academic support. Tailored mentoring, academic counseling, and engagement programs, particularly for male students, can help address behavioral and motivational disparities identified in the analysis.

Structured Academic Engagement Programs: Since study time emerges as the most influential predictor of CGPA, universities should implement structured academic support initiatives such as guided study sessions, academic skill workshops, and faculty-led mentoring,

particularly for students beyond the second academic year.

Nutrition and Health Support Systems: The significant role of BMI and dietary patterns underscores the importance of nutritional and health interventions. Policies ensuring access to affordable, culturally appropriate, and nutritious food, along with preventive health services, can reduce stress-related barriers to learning.

Integrated Student Well-Being Framework: Consistent with the Ecological Systems Perspective, student support policies should adopt a holistic approach that integrates financial aid, academic support, health services, and accommodation quality into a coordinated institutional strategy.

CONCLUSION

This study contributes to the literature on academic performance in Bangladeshi public universities by integrating Human Capital Theory, Stress Process Theory, and the Ecological Systems Perspective into a unified analytical framework. The findings demonstrate that academic achievement, measured by CGPA, is shaped not by isolated factors but by the interaction of academic effort, financial conditions, health status, and institutional support mechanisms.

Multivariate analysis reveals that study time and institutional financial support exert the strongest positive effects on academic performance, while income earned through employment and poor health conditions act as constraints through stress-related pathways. These results extend prior Bangladeshi research by clarifying the relative importance and independent effects of key determinants and by demonstrating how financial vulnerability translates into academic disadvantage through interconnected mechanisms.

Several limitations should be acknowledged. The cross-sectional design restricts causal inference, and the analysis is based on a single public university, which may limit generalizability. Future research should employ longitudinal data and multi-institutional samples to further examine dynamic relationships between economic stress, health, and academic outcomes.

Overall, the study highlights that improving academic performance in public universities requires integrated, theory-informed policies that address financial stress, promote academic engagement, and support students' physical and mental well-being simultaneously.

Acknowledgement

This research was funded by Jatiya Kabi Kazi Nazrul Islam University.

REFERENCE

Arefin, M. S., Akter, T., & Siam, S. M. (n.d.). Students' perceptions of dwelling conditions at the University of Dhaka: A case study of Shaheed Sergeant Zahurul Haque Hall.

Akter, M., Uddin, M., & Jakaria, M. (2019). The effect of students' part-time employment on their academic performance: Evidence from Hajee Mohammad Danesh Science and Technology University, Dinajpur, Bangladesh. *International Journal of Science and Business*, 3(3), 256–263.

Bennett, D., McCarty, C., & Carter, S. (2015). The Impact of Financial Stress on Academic Performance in College Economics Courses. *The Academy of Educational Leadership Journal*, 19(3), 23. <https://www.scrip.org/reference/referencespapers?referenceid=3614073>

Calder, M. J., Richter, S., Mao, Y., Kovacs Burns, K., Mogale, R. S., & Danko, M. (2016). *International students attending Canadian universities: Their experiences with housing, finances, and other issues*. *Canadian Journal of Higher Education*, 46(2), 92–110. DOI:10.47678/cjhe.v46i2.184585

Liu, J., Peng, P., & Luo, L. (2019). The relation between family socioeconomic status and academic achievement in China: A meta-analysis. *Educational Psychology Review*, 32(1), 49–76. <https://doi.org/10.1007/s10648-019-09494-0>

Mandal, A., Ghosh, A., Sengupta, G., Bera, T., Das, N., & Mukherjee, S. (2012). Factors affecting the performance of undergraduate medical students: A perspective. *Indian Journal of Community Medicine*, 37(2), 126–129. <https://doi.org/10.4103/0970-0218.96104>

Marques, B., Azevedo, J., Rodrigues, I., Rainho, C., & Gonçalves, C. (2022). Food insecurity levels among university students: A cross-sectional study. *Societies*, 12(6), Article 174. <https://doi.org/10.3390/soc12060174>

Nath, T. D., Hussain, F., Hossen, M. S., Hossain, M., & Hasan, M. (2019). How accommodation impacts health status, food habits, and academic performance of university students: A cross-sectional study in Bangladesh. *South East Asia Journal of Public Health*, 9(2), 1–11.

Norazlan, N., Yusuf, S., & Al-Majdhouh, F. M. H. (2020). The financial problems and academic performance among public university students in Malaysia. *The Asian Journal of Professional and Business Studies*, 1(2). <https://doi.org/10.61688/ajpbs.v1i2.52>

Nurulhuda, M. J., Norhasmah, S., Siti, Adznam. A., & Zainal, B. (2020). Financial problems associated with food insecurity among public university students in Peninsular Malaysia. *Malaysian Journal of Nutrition*, 26(3), 411–423. <https://doi.org/10.31246/mjn-2020-0032>

Rahman, S., Munam, A. M., Hossain, A., Hossain, A. S. M. D., & Bhuiya, R. A. (2023). Socio-economic factors affecting the academic performance of private university students in Bangladesh: A cross-sectional bivariate and multivariate analysis. *SN Social Sciences*, 3(2), Article 26. <https://doi.org/10.1007/s43545-023-00614-w>

Raihen, M. N., Akter, S., & Sardar, M. N. (2023). Food satisfaction among students: A study of present

- public university students in Bangladesh. *Journal of Mathematics and Statistics Studies*, 4(1), 1–18. DOI: 10.32996/jmss.2023.4.1.1
- Reed, R. (2012). Housing affordability and university students: Low socioeconomic status and locational accessibility to higher education. Proceedings of the 18th Annual Pacific-Rim Real Estate Society Conference, Adelaide, Australia.
- Shaffee, N. S., Ahmad, E. M., Idris, S. I. Z. S., Ismail, R. F., & Ghani, E. K. (2019). Factors influencing accounting students' under-performance: A case study in a Malaysian public university. *International Journal of Education and Practice*, 7(1), 41–53. <https://doi.org/10.18488/journal.61.2019.71.41.53>
- Xing, Z. (2023). Explore how family factors affect students' academic performance -Based on literature analysis. *Journal of Education, Humanities and Social Sciences*, 10, 91–98. <https://doi.org/10.54097/ehss.v10i.6897>
- Xulu-Gama, N. (2019). The role of student housing in student success: An ethnographic account. *Journal of Student Affairs in Africa*, 7(2), 15–25. <https://doi.org/10.24085/jsaa.v7i2.3822>