

THE ANALYSIS OF PEER ROLES ON COLLEGE STUDENTS' ACADEMIC PERFORMANCE

¹Jenifer Laura*, ²Yohanes Heri Pranoto

^{1,2}English Language Education Study Program, Musi Charitas Catholic University, South Sumatera, Indonesia

*Correspondence: royalpets99@gmail.com

ABSTRACT

It is widely acknowledged that peer relationships significantly influence students' academic performance. The assumption that peer influence affects academic achievement encompasses various dimensions; including social, cognitive, and emotional aspects. Thus this concise qualitative case study aimed at the examination of the influence of peer relationships on the academic performance of college students particularly at Universitas Katolik Misi Charitas. Utilizing a questionnaire as the primary research instrument, 39 students from diverse study programs participated in the study. Those findings implied that educational institutions should prioritize fostering supportive and inclusive peer environments to enhance academic motivation and achievement among students even in the higher level of education.

Keywords: Peer Roles, Academic Supports, Academic Performance

INTRODUCTION

Academic performance is one of the main indicators used to assess how well students have understood and mastered the material taught at school. This could be exam grades, test scores, or class rank, which provide valuable insights into a student's academic capabilities. These metrics not only help educators evaluate individual progress but also serve as benchmarks for the effectiveness of the educational system as a whole. By analyzing academic performance, stakeholders can identify areas for improvement and implement strategies to enhance student learning outcomes.

In the university level, especially in Indonesia, academic performance – texted in GPA - remains crucial for students as it significantly influences their future opportunities and career prospects. High academic achievement often leads to better job placements and higher salaries, which are essential in a competitive job market. What has research found?

The rising educational standards in Indonesia have created increased pressure on students to excel academically, as this performance is closely tied to their self-identity and social status within their communities (Musthofiyah & Isnainiyah, 2020).. Additionally, academic resilience plays a vital role in helping students navigate the challenges they face, such as academic stress and the need for effective time management, which are prevalent among Indonesian college students (Sholichah & Hasanah, 2021; Alhamed, 2023; Rianti, Kholidin, & Yandri, 2024). Ultimately, strong academic performance not only fosters personal growth and development but also contributes to reducing educational disparities and promoting inclusive education across the nation (Destari, 2023).

Since then it becomes essential to examine the variables that affect the student's academic performance. Some research comes to the decisions on some factors that can influence student academic performance. Motivation to learn is one of the main factors; motivated students tend to have better academic performance (Abad Mancheño, León Mejía, & Sánchez Cabrero, 2022; Leovani, Ismadi, Inharjanto, Clara, & Pranoto, 2023).

The quality of education students receive also influences, including the quality of teachers and learning materials. A study by Susanto, Sasongko, and Kristiawan (2021) explores the impact of teacher professionalism on the quality of education in madrasahs across Indonesia. It identifies teacher competency as a crucial factor affecting educational quality, arguing that professional development and

mastery of teaching materials are essential for enhancing student learning experiences. The research indicates that well-trained teachers who effectively utilize high-quality educational materials can significantly improve student outcomes.

Students' physical and mental health is also important for students to have better academic performance (Wang, Zhang, & Liang, 2019). The study results indicated that poor mental health was strongly correlated with lower GPAs, reduced participation in extracurricular activities, and an increased likelihood of dropping out from college. Conversely, maintaining good mental health through strategies like mindfulness practices or seeking support services could mitigate these negative effects and promote better academic outcomes (Xiang, Shuai, Zhang, & Li, 2024).

Some research also got the learning environment, such as cleanliness and quietness, as one factor which can affect students' class performance (Mantooth, Usher, & Love, 2020; Ralph, Schneider, Benson, et al. 2022). Somehow, support from parents and friends has become the most influential factor towards student academic performance. Peers have a significant influence on student academic performance. They can influence students' learning motivation, assist in understanding the material, and provide emotional support. Student peers are peers who have a similar age, background and level of education. They are often their closest friends and have a significant influence on students' behavior and attitudes.

Many research reported the results that student peers have an important role in student life. They can influence students' learning motivation, assist in understanding the material, and provide emotional support. Therefore, it is important for students to have positive and supportive peers.

The literature about university students is mostly about selection effects and not about influence. Only a few studies have addressed this influence-question, maybe because of the challenges that arise in the collection and analysis of complete social network data. For example, Lomi et al. (2011) did find a significant influence effect among students in a very selective MBA programme. Dokuka et al. (2020) showed in a sample of economic students in Russia that friends became more similar over time in terms of performance (although the standard error was relatively high). The Russian context may differ from our study context in the Netherlands and other OECD countries. Dokuka et al. (2020) explained that the grades in Russian are visible on a website, which also can influence the selection of peers. In the study context in the Netherlands, students are only informed about the grades of their peers when they are informed by them. This may have a different impact on the role of the grades in the peer selection processes. Therefore, it is useful to replicate studies in different countries (including OECD countries) across the globe to get more insight into these peer selection and influence mechanisms after the transition from secondary education to university.

Moving beyond Brouwer et al. (2018) who investigated merely a peer selection process, the current study not only unravels social influence from the relational selection of peers, but it also investigates the impact of relational changes on performance over time in the higher education context where students are assigned to LCs. This study is one of the few studies that investigate the co-evolution of peer networks and academic performance in LCs in higher education. Insight into these processes could be used to enhance the learning experience and performance in LCs by giving explicit attention to friendship and help relations.

In light of the extensive discussion on the role of peers in influencing academic performance, it is evident that peer interactions play a significant and complex role in shaping students' educational outcomes. While previous studies have explored various dimensions of peer influence, there remains a need for a focused investigation on how these dynamics impact academic performance specifically in college settings. This study, therefore, aims to contribute to the understanding of this relationship by conducting a comprehensive analysis of peer roles on college students' academic performance, providing valuable insights that can inform educational strategies and peer-based interventions in higher education institutions.

METHODS

This study employed a qualitative case study approach to explore the influence of peer relationships on the academic performance of college students at Universitas Katolik Misi Charitas. A case study design was chosen due to its suitability for in-depth examination of complex social dynamics within specific contexts. By focusing on peer interactions, this research seeks to understand the nuanced ways in which these relationships shape students' academic experiences and outcomes within the unique setting of the university.

To gather data, a questionnaire was used as the primary research instrument, designed to capture both descriptive and reflective responses from participants. The questionnaire consisted of both closed-ended and open-ended questions, allowing for a comprehensive view of peer influence from multiple perspectives. Closed-ended questions facilitated the collection of demographic data and the quantification of peer interaction patterns, while open-ended questions provided students with the opportunity to express personal insights and experiences. This combination enabled a richer understanding of the factors associated with peer relationships and their impact on academic performance.

A total of 39 students participated in the study, representing diverse study programs across the university. This diversity helped ensure a broad representation of experiences and perceptions, which is particularly important for capturing the range of peer relationship dynamics that may influence academic outcomes. Participation was voluntary, and students were informed about the study's purpose and assured of confidentiality, fostering a trustworthy environment for sharing honest responses.

The questionnaires were distributed electronically via Google Forms, which facilitated efficient data collection and accessibility for participants. The online format allowed students to respond at their convenience, minimizing disruptions to their schedules and potentially encouraging more thoughtful responses. This method proved effective for reaching participants from various departments and enabled a streamlined process for gathering, organizing, and analyzing the data essential to the study's goals.

RESULT AND DISCUSSION

Those 39 respondents filling in the questionnaire link were UKMC students who come from different study programs - management, accounting, English language education, psychology, information systems, and informatics.

Participant Demographics

The participants in this study represent a diverse cross-section of students, enhancing the breadth of perspectives on the role of peer interactions in academic performance. These 39 individuals span various study programs, providing insights from multiple academic disciplines and fields of interest.

Their ages range across the typical spectrum for university students, adding further variation to the responses collected. The participants also include students from different academic levels—freshmen, sophomores, juniors, seniors, and alumni—offering perspectives shaped by varying degrees of experience within their academic journeys. Additionally, the sample is gender-diverse, allowing for a nuanced understanding of how gender may intersect with peer roles in academic contexts. Together, these demographic details provide a comprehensive foundation for analyzing peer roles' influence on academic outcomes.

Most of the respondents in this study come from Management and Psychology programs, with each representing over 25% of the sample. This concentration suggests a significant contribution of students from these fields, who might bring particular insights into peer roles, given that both Management and Psychology heavily emphasize interpersonal and group dynamics. Meanwhile, participants from other programs—English Language, Accounting, Architecture, Informatics, and Information Systems—add

diversity to the data by providing perspectives from more specialized or technical fields, which may yield different peer interactions and approaches to academic collaboration.



Figure 1. Respondents' Study Programs

The age distribution of participants shows that the majority (71.8%) are between 18-20 years old, while 25.6% are in the 21-23 age range. This suggests that most respondents are relatively early in their academic journeys, likely in the phase where they are building foundational academic habits and networks. Younger students might rely more on peer support for navigating their courses, while older students may have more established peer networks and potentially serve as mentors or role models for younger students, thereby shaping their academic performance through different roles and responsibilities within these relationships.

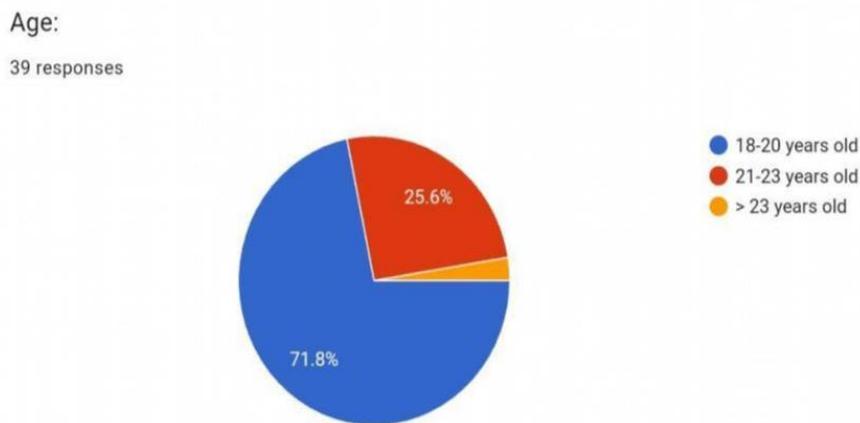


Figure 2. Respondents' Age Distribution

In terms of academic level, 33.3% of respondents are seniors, followed by 28.2% sophomores, 15.4% freshmen, 12.8% juniors, and 10.3% graduates. The high proportion of seniors suggests an emphasis on experienced students, who may offer insights into the long-term impact of peer roles on academic success. Sophomores and juniors, meanwhile, represent students still building their academic identities, potentially looking to seniors for guidance, while freshmen may highlight how peer influence helps them adjust to new academic demands. Graduates provide a distinct perspective, likely reflecting on peer roles' influence retrospectively and with a clearer view of how these interactions contributed to their academic journeys.

Academic level:

39 responses

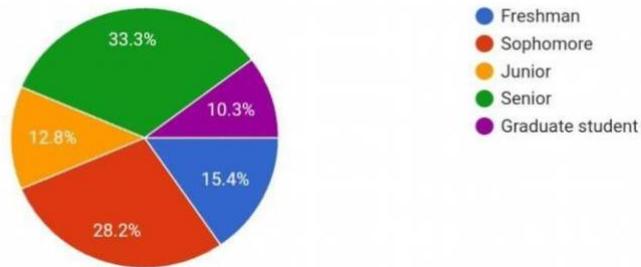


Figure 3. Respondents' Academic Level

Gender distribution shows that 61.5% of participants are female, and 38.5% are male. This gender breakdown may suggest variations in how peer roles are perceived and utilized, as prior studies often find that female students might engage in more collaborative or supportive peer networks. This could mean that female respondents in this study may demonstrate a greater emphasis on academic performance influenced by cooperative and emotionally supportive peer roles, while male respondents might highlight different aspects of peer dynamics, such as competition or individual accountability.

Gender:

39 responses

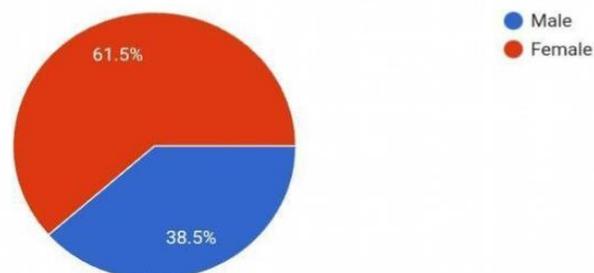


Figure 4. Respondents' Gender Distribution

Identifications of Peer Roles

After the demographic of the respondents, the peer roles were identified. In this analysis, the researchers interpreted the findings from a survey of 39 respondents from diverse study programs at UKMC regarding peer roles and their impact on academic performance. Each paragraph addresses a specific question, providing insights into the dynamics of peer relationships and their implications for academic success.

Communication Frequency with Peers

The survey results indicated that 76.9% of respondents communicate with their peers daily, while 15.4% do so weekly. A small percentage communicates rarely or monthly. This high frequency of communication suggests that students at UKMC value their interactions with peers, which aligns with findings from previous studies indicating that regular communication fosters collaboration and enhances academic engagement (Goselin & Rickert, 2022; Senyamator, Abagbana, Nugba, Adu, & Asabere, 2023). The daily interactions likely facilitate the exchange of ideas and support, contributing positively to academic performance. In contrast, the small percentage of participants who communicate rarely or monthly may indicate potential isolation or lack of engagement, which could negatively impact their academic performance.

How often do you communicate with your peers?

39 responses

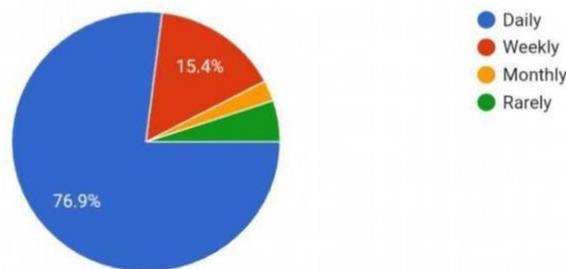


Figure 5. Communication Frequency with Peers

Participation in Group Activities

An impressive 94.9% of respondents reported participating in group activities with their peers. This finding underscores the importance of collaborative learning environments in academic settings. Research has shown that group activities can enhance critical thinking skills and foster a sense of community among students (Mokhampanyane, 2022; Zhou, Chen, Li, Liu, & Cui, 2024). The high level of participation suggests that students at UKMC are actively engaging in cooperative learning, which can lead to improved academic outcomes. The findings also suggest that the respondents value peer collaboration, which can lead to enhanced problem-solving skills and deeper understanding of course material.

Do you participate in group activities or projects with your peers relationships?

39 responses

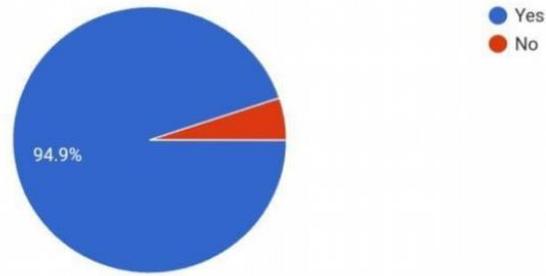


Figure 6. Participation in Group Activities

Motivation from Peer Relationships

When asked about motivation to achieve academic success due to peer relationships, 43.6% reported being very motivated, 33.3% were motivated, and 23.1% were neutral. This indicates that peer relationships significantly influence students' motivation levels. Previous studies have found that supportive peer networks can enhance motivation by providing encouragement and accountability (Wang, Xie, & Xu, 2022; Bi, Moon, & Shin, 2023). The results suggest that while many students derive substantial motivation from their peers, there is still a notable portion who may not feel as influenced, suggesting a potential area for further exploration.

How motivated are you to achieve academic success due to your peer relationship?

 Copy

39 responses

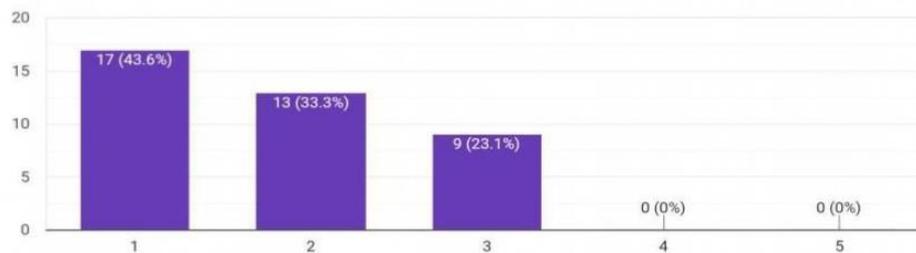


Figure 7. Motivation from Peers Relationship

Seeking Help from Peers

A remarkable 97.4% of respondents indicated they seek help from peers when facing academic challenges. This finding highlights the critical role peers play as resources for academic support. Literature consistently emphasizes the value of peer assistance in overcoming academic hurdles (Goselin & Rickert, 2022; Li, Bian, Fan, et al., 2023). The overwhelming majority seeking help reflects a strong culture of collaboration among students at UKMC, which can lead to enhanced problem-solving abilities and better academic performance.

Do you seek help from your peers when facing academic challenges?

39 responses



Figure 8. Seeking Helps from Peers

Pressure from Peers

In terms of peer pressure, 56.4% of respondents feel no pressure to perform well academically, while 43.6% do experience such pressure. This split indicates a complex dynamic where some students thrive under the encouragement of their peers, while others may feel overwhelmed by expectations. The dual nature of peer pressure can lead to both positive outcomes—such as increased motivation—and negative consequences, such as anxiety or burnout (Goselin & Rickert, 2022; Wang, Xie, & Xu, 2022). Understanding these dynamics is crucial for educators aiming to cultivate a supportive environment that maximizes the benefits of peer influence while minimizing its potential drawbacks.

Do you feel pressure from your peers to perform well academically?

39 responses

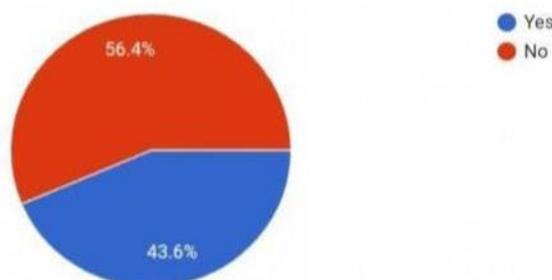


Figure 9. Pressure from Peers

Overall Academic Performance Ratings

When assessing overall academic performance, 30.8% are very satisfied, 38.5% are satisfied, 28.2% are neutral, and only 2.6% are not satisfied. These results suggest a generally positive perception of academic achievement among respondents, which aligns with findings from other studies indicating that strong peer relationships contribute to higher levels of satisfaction with academic

performance (Mokhampanyane, 2022; Li, Bian, Fan, et al., 2023). The small percentage of dissatisfaction highlights areas for improvement; institutions may need to explore the factors contributing to this dissatisfaction and address them through enhanced support systems.

How would you rate your overall academic performance?

 Copy

39 responses

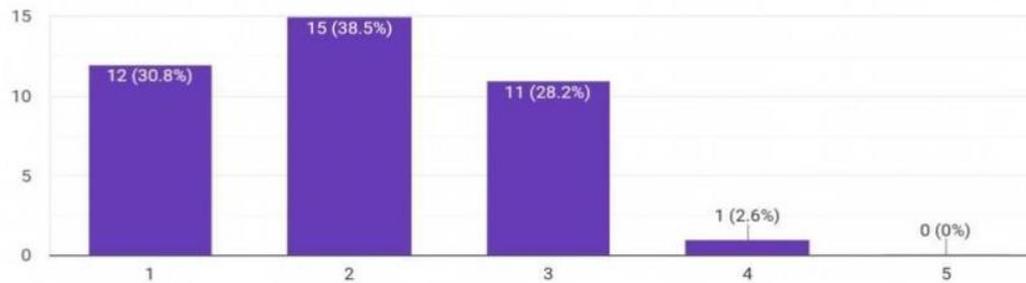


Figure 10. Academic Performance Rates

Perceived Support from Peers

Finally, an overwhelming 92.3% reported feeling supported by their peers in their academic endeavors. This strong sense of support is crucial for fostering a positive learning environment and has been associated with higher retention rates and academic success (Gremmen, Berger, Ryan, Steglich, Veenstra, & Dijkstra, 2019; Liu, M., Chen, Fu, Li, & Liu, 2023; Zhou, Chen, Li, Liu, & Cui, 2024). The data indicates that students at UKMC benefit significantly from their peer networks, reinforcing the importance of cultivating supportive relationships in educational settings.

Do you feel supported by your peers in your academic endeavors?

39 responses

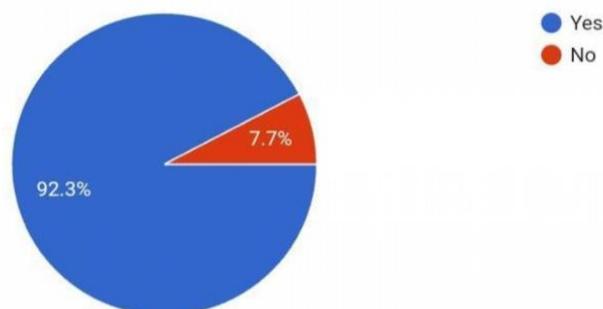


Figure 11. Supports from Peers

CONCLUSION

The analysis of peer roles in college students' academic performance highlights several key findings. Overall, the findings from the survey of 39 respondents at UKMC reveal a profound impact of peer relationships on academic performance. The high frequency of communication and participation in group activities indicates that students actively engage with one another, fostering a collaborative learning environment. This engagement not only enhances motivation but also provides essential support during academic challenges, as evidenced by the overwhelming majority who seek help from peers. The positive ratings of overall academic performance satisfaction further underscore the beneficial effects of these peer interactions, suggesting that a strong network of support contributes significantly to students' self-assessment and achievement.

However, the presence of perceived pressure among a notable minority highlights the complexity of peer influence on academic success. While many students thrive in supportive environments, some may

experience stress related to performance expectations from their peers. This duality suggests the need for educational institutions to promote healthy peer interactions that encourage collaboration without inducing undue pressure. Overall, fostering a culture of support and open communication among students is essential for enhancing academic outcomes and ensuring that peer relationships serve as a positive force in their educational journeys.

REFERENCES

- Abad, M. A., León, M. A. C., & Sánchez, C. R. (2022). Relationship between emotional motivation and academic performance in second language learning. *International Journal of Evaluation and Research in Education (IJERE)*, 11(3), 1524-1533. <http://doi.org/10.11591/ijere.v11i3.22495>
- Alhamed, A. A. (2023). The link among academic stress, sleep disturbances, depressive symptoms, academic performance, and the moderating role of resourcefulness in health professions students during COVID-19 pandemic. *Journal of Professional Nursing*, 46, 83–91. <https://doi.org/10.1016/j.profnurs.2023.02.010>
- Bi, Y., Moon, M., & Shin, M. (2023). The longitudinal effects of depression on academic performance in Chinese adolescents via peer relationships: The moderating effect of gender and physical activity. *International Journal of Environmental Research and Public Health*, 20(1), 181. <https://doi.org/10.3390/ijerph20010181>
- Brouwer, J., Christian E.G., Steglich, D., Ellen P.W.A. & Jansen c, (2022) The development of peer networks and academic performance in learning communities in higher education, 80, 101603. <https://doi.org/10.1016/j.learninstruc.2022.101603>
- Destari, D. (2023). Analysis the quality of human resources and the effectiveness of higher education management on student academic performance at universities in Samarinda, East Kalimantan. *The Eastasouth Journal of Learning and Educations*, 1(3), 84-96. <https://doi.org/10.58812/esle.v1i03.157>
- Goguen, L. M. S., Hiester, M. A., & Nordstrom, A. H. (2010). Associations among peer relationships, academic achievement, and persistence in college. *Journal of College Student Retention: Research, Theory & Practice*, 12(3), 319-337. <https://doi.org/10.2190/CS.12.3.d>
- Goselin, G. M., & Rickert, N. P. (2022). Mental health symptoms predicting American college students' academic performance: The moderating role of peer support. *Psi Chi Journal of Psychological Research*, 27(4), 297-317, <https://doi.org/10.24839/2325-7342.JN27.4.297>
- Gremmen, M. C., Berger, C., Ryan, A. M., Steglich, C. E. G., Veenstra, R., & Dijkstra, J. K. (2019). Adolescents' friendships, academic achievement, and risk behaviors: Same-behavior and cross-behavior selection and influence processes. *Child Development*, 90(2), e192–e211. <https://doi.org/10.1111/cdev.13045>
- Li, M., Bian, Q., Fan, W. et al. (2023). The development of school satisfaction in Chinese early adolescents: The contributions of peer liking and academic performance. *J Youth Adolescence* 52, 359–369. <https://doi.org/10.1007/s10964-022-01701-6>
- Liu, M., Chen, X., Fu, R., Li, D., & Liu, J. (2023). Social, academic, and psychological characteristics of peer groups in Chinese children: Same-domain and cross-domain effects on individual development. *Developmental Psychology*, 59(1), 57–68. <https://doi.org/10.1037/dev0001449>
- Mantooth, R., Usher, E. L., & Love, A. M. (2020). Changing classrooms bring new questions: Environmental influences, self-efficacy, and academic achievement. *Learning Environments Research*, 23, 1–17.

- Mokhampanyane, M. (2022). Effects of peer mentoring on academic performance of first-year accounting students. *Proceedings of ADVED 2022- 8th International Conference on Advances in Education*. <https://doi.org/10.47696/adved.202232>
- Musthofiyah, U., & Isnainiyah, L. (2020). What makes Indonesian Eastern students struggle on academic performance at urban college: A grounded theory. *Enjourme*, 5(1), 16-30. <https://doi.org/10.26905/enjourme.v5i1.4311>
- Poldin.,O & Yudkevich., M (2013) Role of peers in student academic achievement in exogenously formed university groups, 39, 568-581 <https://doi.org/10.1080/03055698.2013.814561>
- Leovani, E., Ismadi, F. H., Inharjanto, A., Clara, C. & Pranoto, Y. H. (2023). Peningkatan pengetahuan manajemen waktu dan perubahan untuk persiapan masuk perguruan tinggi bagi seminaris. *JMM (Jurnal Masyarakat Mandiri)*, 7(4), 3512-3521. <https://doi.org/10.31764/jmm.v7i4.16127>
- Ralph, M., Schneider, B., Benson, D.R. et al. (2022). Student enrollment decisions and academic success: Evaluating the impact of classroom space design. *Learning Environ Res*, 25, 523–547. <https://doi.org/10.1007/s10984-021-09379-6>
- Rianti, N., Kholidin, F. I., & Yandri, H. (2024). Investigating the interplay of academic stress, anxiety, and sleep disturbances in college students. *Buletin Konseling Inovatif*, 4(1),. <https://doi.org/10.17977/um059v4i12024p1-9>
- Senyamator, F., Abagbana, V. N., Nugba, R. M., Adu, A., & Asabere, M. A. (2023). The Role of academic performance and peer influence in senior high school students' programme choice in Ghana. *British Journal of Multidisciplinary and Advanced Studies*, 4(2), 66–83. <https://doi.org/10.37745/bjmas.2022.0136>
- Sholichah, I. F., & Hasanah, M. (2021). Covid-19 pandemic: Academic resilience and academic stress among college students in Gresik. *Proceedings of the 2nd International Conference on Psychological Studies*.
- Susanto, H., Sasongko, R. N., & Kristiawan, M. (2021). Teachers 'professionalism in improving the quality of madrasah education in the era of globalization. *Jurnal Studi Guru Dan Pembelajaran*, 4(1), 135-141. <https://doi.org/10.30605/jsqp.4.1.2021.551>
- Wang, J., Zhang, Y., & Liang, X. (2019). mental health and academic achievement among college students: A systematic review. *Journal of Adolescent Health*, 65(5), S13-S20.e1.
- Wang, Y., Xie, T., & Xu, J. (2022). Family socioeconomic status and internalizing problem behavior among Chinese adolescents: The chain mediation effect of academic performance and peer conflict. *front. Psychol*, 13, 902545. <https://doi.org/10.3389/fpsyg.2022.902545>
- Xiang, Y., Shuai, C., Zhang, Y., & Li, Y. (2024). The mental health of college students and the level of academic achievement: Knowledge about psychological well-being, self-control, and college learning. *Ceskoslovenska psychologie*, 68(1), 80-95. <https://doi.org/10.51561/cspsych.68.1.80>
- Zhou, J., Chen, X., Li, D., Liu, J., & Cui, L. (2024). Leaders of peer groups in Chinese early adolescents: The roles of social, academic, and psychological characteristics in group leadership. *J Youth Adolesc*, 53(9), 2151-2164. <https://doi.org/10.1007/s10964-024-02003-9>