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Factors Influencing Academic Achievement of University Students

Tak Jie Chan
Multimedia University, Malaysia
tjchan@mmu.edu.my
ORCID iD: 0000-0001-8655-0924
(Corresponding author)

Min Dai
SEGi University, Malaysia
SUKD1701420@segi4u.my

Abstract
Academic achievement is one of the significant outcomes of the formal education processes. Thus, understanding the factors which influence academic performance is timely. This study aims to examine the determinants that impact the academic performance of students. The determinants include student engagement, general knowledge, social skills, and communication skills. This study applied a quantitative research design, with an online survey questionnaire distributed to the students of a private university in Klang Valley, and 150 valid responses were solicited. The Pearson's product-moment correlations in the current study demonstrated that student engagement had a positive and strong relationship with student's academic achievement. General knowledge and social skills were found to have a positive and moderate relationship with academic achievement; however, communication skills were found to have a positive but weak correlation with academic achievement. Multiple regression analysis found that student engagement, general knowledge, and social skills were predictors of academic achievement. However, communication skills were not the predictor. In addition, this study significantly contributes to students' social life aspects as it is consistent with the Malaysian Ministry of Higher Education's initiative to integrate soft skills into the curriculum and learning processes. This will urge the university's management to develop initiatives and programmes that equip students with various soft skills to make them competent in the market force after graduation. This study also discusses the conclusion, implications, and future research directions.

Introduction

Academic achievement is the most significant outcome of the results of formal education (Moore, 2019), and it is important in achieving higher education goals (Zhou & Mustappha, 2022), which include the Malaysian Ministry of Education's introduction of various initiatives to improve school performance (Malaysia Education Blueprint 2013-2025) to ensure that students have access to

comprehensive modules and instructional strategies that allow them to excel in their education journey (Govindarajoo et al., 2022). This is further aligned with the strategic goals of the Malaysian government to highlight human capital development by the year 2025 to become a high-income nation (Economic Planning Unit, Prime Minister's Department, 2021). Hence, the education system needs to nurture and produce high-skilled potential human capital to fulfil the needs of industry.

Based on that notion, therefore, higher education institutions or universities have become a place to produce graduates who have numerous soft skills such as communication skills, critical thinking, problem-solving (Bakar et al., 2023), and entrepreneurship skills (Portuguez Castro & Gómez Zermeño, 2021) to enhance academic performance and get ready to serve the demand of the industry. This is because academic achievement can help students develop various life skills, which can be useful in their future personal lives and careers. However, Garg et al. (2021) argued that a student's academic performance is not a complete parameter and does not fully reflect the real-world outcome or performance.

According to the Department of Statistics, Malaysia (2022), the number of employed graduates rose by 5% compared to 2020 to register 4.57 million graduates, showing that universities successfully produced a large number of employed graduates in 2021. Moreover, the Malaysian government targets to achieve 86.7% of the graduate employability rate in higher education to solve the issue of unemployment in the labour market by 2025 (Economic Planning Unit, Prime Minister's Department, Malaysia, 2021). This target can be achieved if universities play a pivotal role in moulding and producing qualified students who not only excel in their academic performance but are also able to analyse and solve actual problems with various hard and soft skills.

Although much literature studies factors related to academic performance, it mainly focuses on external factors such as financial issues or problems (Norazlan et al., 2020), the influence of friends and family, and school or institutional factors (Zhou & Mustappha, 2022). Besides, students' learning ability and efforts in studying (Bakar et al., 2023) and time management (Mulugeta & Pandian, 2022) have also been found to contribute to the success of academic performance. However, students' soft-skills-related determinants and academic performance need further investigation (Casali et al., 2023; Obilor, 2019) because technical skills are insufficient to succeed in academic performance and industry (Patacsil & Tablatin, 2017). Based on the above discussion, this study aims to investigate university students' soft-skills-related determinants, namely student engagement, general knowledge, social skills, communication skills and academic achievement.

Literature Review

Student's Academic Achievement

A student's academic achievement is the extent to which the student or an educational institution has achieved short or long-term educational goals (Park & Robinson, 2021). A student's academic achievement is important for both the student and the educational institution as it reflects the quality that is present in terms of the progress that has been made over the years (Oyewobi et al., 2020). A student's academic achievement is also associated with the continuous efforts made in significantly improving the education level and academic research. In this study, a student's academic achievement is defined as the overall measurement of the student's abilities, knowledge, and skills in terms of academic achievement which is emphasised by the subject or course of study (Ede & Igbokwe, 2018).

Relationship between Soft-skills Determinants and Academic Achievement

Student Engagement

Student engagement is reflected in the level of participation that students have in terms of their relationship with their educational institutions or academic staff, and it yields the intended academic outcomes (Golan et al., 2019; Owusu-Agyeman & Amoakohene, 2021). Student engagement indicates a two-way relationship that communicates the information and messages related to the learning processes. Studies show that the use of social media to conduct lessons has ensured its effectiveness in achieving academic excellence (Siddiqi et al., 2022). Student engagement levels that are studied based on the use of social media network channels have created more engagement due to their unlimited content and unfiltered opinions and ideas that are available (Singh et al., 2021). Numerous past studies also found that student engagement positively leads to better academic performance or achievement (Moubayed et al., 2018; Sukor et al., 2021).

Owusu-Agyeman and Amoakohene (2021) studied student engagement and perceived gains in academic performance among students in Ghana. The researcher determined that student engagement levels are an important variable that allows educators and students to gain a better understanding which improves the overall assessment of students. This allows students to have a better understanding of the expectations set by the educators and the needs for the subject so that they can meet the criteria and achieve the expected academic performance in their educational journey.

Besides, Siddiqi et al. (2022) studied the development and testing of student engagement scales among university students. The researchers determined that factors relating to predominantly social and classroom environments lead to better engagement. The researchers, therefore, indicated that student engagement in the online classroom environment needs to be evaluated. Thus, online tools such as different systems and platforms must be in place to contribute to and increase student engagement in the learning process. Based on the discussion, this study hypothesised that:

H1: There is a positive relationship between student engagement and student's academic achievement.

General Knowledge

General knowledge is the vast knowledge relating to any subject that is available based on academic or non-academic areas (Vuori & Okkonen, 2017). According to Hibel et al. (2016), general knowledge is defined as the ability to have information relating to a broad range of facts and subjects of different topics. As highlighted by Jirout et al. (2023), general knowledge is a significant predictor of learning, and the use of platforms that are available through social media allows users to develop their general knowledge relating to the subject, and this will develop students' interest to explore new knowledge. The general knowledge could be useful to students or academics as it provides holistic views to understand the subjects that have been studied to further enhance their academic performance levels (Zhan et al., 2020).

Bondarouk et al. (2014) stated that general knowledge is crucial for users to better understand different perspectives which directly or indirectly impact the long-term knowledge-gaining and learning process. Another research by Madden et al. (2018) determined that the general knowledge that the students had applied during their academic periods gave the students a greater advantage over their peers. The general knowledge that the students had developed reflected their level of

maturity and led to the development of important skills in the workplace later. Thus, the following hypothesis was postulated:

H2: There is a positive relationship between general knowledge and student's academic achievement.

Social Skills

Social skills are the ability of the person to interact and build relationships with others in society, allowing the individual to gain networking within a similar social circle (Urquía-Grande & Estébanez, 2020). Social skills among students are important as most tasks that are associated with academic achievement require a certain level of social skills to complete them, such as group and teamwork (Camacho-Minuche et al., 2021). Wickramanayake (2022) also stated that groups, teams, and social circles that are related to one another are formed by the similar interest of the users.

Social skills are essential for academic performance as research, knowledge, and information are shared between academics, allowing higher quality work to be produced. Social skills are also relevant skills as businesses and people are usually aligned to the objectives, leading to the achievement of shared goals in the workplace. Several past studies also confirmed that social and life skills contributed positively to academic performance (Carlo & Quispe, 2022; Sánchez-Hernando et al., 2021). Based on the discussion, this study hypothesised that:

H3: There is a positive relationship between social skills and student's academic achievement.

Communication Skills

Communication skills are the capability of the individual to establish an understanding with another person for better knowledge development or learning capabilities (Alawamleh et al., 2022). Communication skills also allow an individual to identify and communicate the related information with a proper channel that facilitates the communication process. It is important to note that the development of social media globally has impacted communication skills as it allows an individual to gain access to the communication tools which enable the communication process to take place easily (Mehta & Jha, 2021).

Creo et al. (2020) stated that communication skills establish the proper tone and emotions among individuals so that communication can take place effectively. Communication skills allow students to obtain better knowledge to support their academic achievement due to the number of quality interactions conducted with parties of interest via different channels.

Ahmad et al. (2021) determined that communication skills have been one of the soft skills developed at the university level as a tool to assist students in gaining confidence in presenting their findings, information, or ideas. Communication skills have been regarded as skills that develop individuals' capability to represent their personality when they proceed with their career life. The better the communication skills that a student has developed, the higher the academic performance is because of the abilities the student has to present ideas accurately and reliably based on the subject matter. This is aligned with numerous past studies which ascertain the relationship between communication skills and academic and teaching performance (Arikwandu & Samuel, 2021; Jasim & Khalifa, 2020; Munohsamy & Muniandy, 2023), and thus, the following hypothesis was developed:

H4: There is a positive relationship between communication skills and student's academic achievement.

Figure 1: Conceptual Framework
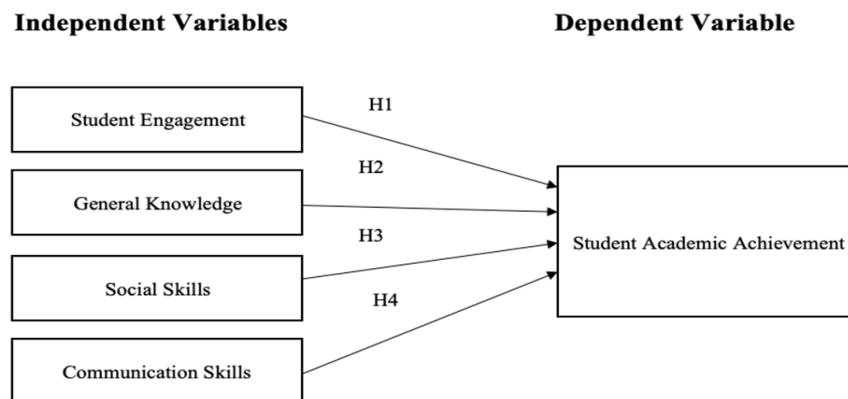
Methodology

Research Design

This research utilised quantitative methods. The quantitative research design involves the collection of data in large numbers, and the data are analysed by using statistical tools and numerical methods to determine the results of the research (Andrade & Andersen, 2020).

Sampling Procedures

The technique used in this study is the purposive sampling technique. A purposive sampling technique is a non-probability sample that is chosen based on population characteristics and the study goal. As considered by Tongco (2007), purposive sampling is a non-random sampling technique relying on researchers' judgement. The respondents of this study were sstudents from the second year and above because they had been in the university setting for some time, and the potential for them to be exposed to courses related to soft skills was promising. Since this study was not able to obtain the population list, G*Power software was used to identify the required sample size. After calculation, the minimum sample size required was 129 responses (Predictors: 4, power: 0.95, effect size: 0.15) (Kang, 2021). Hence, 150 valid responses were obtained, and the sample size was still relevant for statistical data analysis. The participants in this research were students who studied at a private university in the Klang Valley region. Klang Valley was chosen as it is an international higher education hub, and many private universities are located within this area (Chin, 2019; Starpicks, 2022).

Measurement

The instrument for this research is divided into three sections. Section A is demographic information such as age, gender, education, and nationality of the respondents. Section B consists of items related to independent variables which are student engagement, general knowledge, social skills, and communication skills, all of which were adapted from Al-Zboun et al., (2018). Section C is the

student's academic achievement, and the items were adapted from Chtouki et al., (2019). For instance, items such as "*I am satisfied with my academic achievement so far; I have obtained a GPA of 3.0*

consistently; I have a continuous studying pattern to meet the academic achievement; I am consistent in my academic progress; I gained progress throughout my academic years" are asked. In Sections B and C, a

Likert-type scale is used, and it consists of five anchors, namely 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

Reliability Analysis

The pilot study, which involved 30 respondents in this research, was conducted. According to the requirements of the reliability analysis, the items are consistent and reliable when they exceed Cronbach's Alpha value of 0.70, as suggested by Saunders et al. (2019). This indicates that the researchers will be able to proceed with the real data collection as it has met the requirement of the internal consistency of the instrument.

Table 1

Reliability of the Variables

Variables	No. of Items	Cronbach's Alpha (n=30)
Student's Academic Achievement	5	0.736
Student Engagement	4	0.756
General knowledge	4	0.769
Social Skills	4	0.765
Communication Skills	4	0.718

Data Collection Procedures

The researchers applied online or virtual data collection. The researchers requested and obtained permission from the respondents to complete the survey, as mentioned on the cover page of the online survey. The online survey was distributed on various social media platforms such as Facebook and WhatsApp, and also by mail. The researchers assured the respondents of the confidentiality and anonymity of the data collected. The data were collected from the period of March 2021 to April 2021, when Malaysia was under the movement control order and conditional movement control order.

Normality Testing

To ensure a normal distribution of the data, skewness and kurtosis analyses were further carried out. Hair et al., (2018) mentioned that data must be normally distributed before multivariate analysis can be conducted. It can be said that the data are normally distributed when the values that represent the skewness and kurtosis of the variables are in a range of -2 to +2, with consideration of 5% sampling errors (Siddiqi, 2014). In this study, as referred to Table 2, the value for the dependent variable (DV), the student's academic achievement, is within the range of -2 and +2, thus, showing that data are still normally distributed, and Pearson's product-moment correlation as well as multiple regression analysis can be further analysed.

Table 2

Normality based on Skewness and Kurtosis Values

Variable	Skewness	Kurtosis
Student's Academic Achievement	-0.371	-0.860

Figure 2: Histogram of Student's Academic Achievement
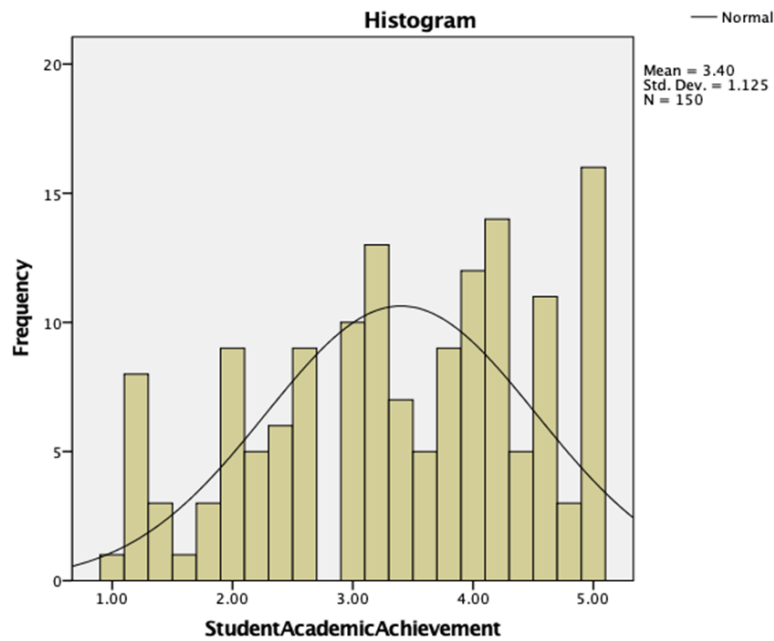
Results and Discussion

Based on Table 3 below, more than half of the respondents were female (64.0%), and the remaining were male (36.0%). The majority of the respondents were Malaysians (86.0%), whereas 14.0% of the respondents were non-Malaysians. In terms of age group, nearly half of the respondents were in the age group of 21-25 years old (42.0%), followed by respondents aged between 26 and 30 years old (22.0%). The majority of the respondents (84.0%) held a Bachelor's degree, whereas 12.7% were in a foundation or diploma programme, and 2.0% had a postgraduate (Master's and PhD) degree, indicating that the respondents were educated and able to make wise judgements.

Table 3:

Profile of the Respondents (n=150)

Variable(s)	Category	Frequency	%
Gender	Male	54	36.0
	Female	96	64.0
Age Groups	16-20	28	18.7
	21-25	63	42.0
	26-30	33	22.0
	>30	26	17.3
Nationality	Malaysian	129	86.0
	Non-Malaysian	21	14.0
Education	SPM	2	1.3
	STPM/Foundation/ A-Levels/ Diploma	19	12.7
	Bachelor's Degree	126	84.0
	Postgraduate Degree	3	2.0

Pearson's product-moment correlation analysis was carried out to determine the direction and strength of the correlation for each variable. Based on Pearson's correlation, it was determined that student engagement and academic achievement had a positive and very high correlation (r =0.852, $p < 0.05$). In addition, general knowledge ($r = 0.551$, $p < 0.05$) and social skills ($r = 0.697$, $p < 0.05$) had a positive and moderate relationship with the student's academic achievement. However, communication skills had a positive but weak correlation with the student's academic achievement ($r = 0.253$, $p < 0.05$). The interpretation of the strength of the relationship was based on Guilford's (1973) indicators.

Table 4

Correlation Test on the Relationship between Factors and Student's Academic Achievement (n=150)

	Student's Academic Achievement	
Factors	*r*	*p*
Student Engagement	0.852**	0.000
General Knowledge	0.551**	0.000
Social Skills	0.697**	0.000
Communication Skills	0.253**	0.000

**Correlation is significant at the 0.01 level (1-tailed)

The value of the Durbin-Watson in this research is 1.538 which is between the value of 1 to 3, indicating that there are no auto-correlations that arise from the statistical regression analysis. The

value of R is 0.907, indicating a high effect between the independent variables for this research, which are student engagement, general knowledge, social skills, and communication skills. The value of R^2 is 0.823, which indicates that the independent variables of this research impacted the student's academic achievement by 82.3%. However, the analysis indicates that student engagement, general knowledge, and social skills were the predicting factors that contributed to the student's academic achievement, while communication skills were excluded. Thus, the remaining 17.7% were based on other variables not investigated in this research. Hence, H1, H2, and H3 were supported; however, H4 was rejected.

Table 5

Multiple Regression Analysis of Student's Academic Achievement with Predictor Variables

Predictor Variables	Unstandardised	Coefficient	Standardised Coefficients		
	B	Std. Error	Beta	t	p
(Constant)	0.026	0.181		0.142	0.887
Student Engagement	1.081	0.068	0.994	15.840	0.000
General Knowledge	0.434	0.062	0.427	6.989	0.000
Social Skills	0.326	0.052	0.294	6.294	0.000
Communication Skills	0.032	0.048	0.026	0.664	0.508

F = 169.018 $df_1 = 4$, $df_2 = 145$ P = 0.000
R = 0.907 $R^2 = 0.823$ Adjust $R^2 = 0.819$

The current findings showed that student engagement was positively related to academic achievement. This finding is aligned with numerous past studies (Moubayed et al., 2018; Owusu-Agyeman & Amoakohene, 2021; Sukor et al., 2021) in which student engagement indicates a two-way relationship between students and instructors that communicates the information and messages related to the learning processes, and this leads to better academic performance.

Besides, general knowledge was found to be an important predictor which led to good academic achievement, and this is congruent with past studies (Jirout et al., 2023; Zhan et al., 2020). This is because general knowledge gained by students provides a wider scope of knowledge and enhances the success of academic achievement.

Furthermore, social skills were also found to be one of the predictors of academic achievement, and this supports the finding in a few studies (Carlo & Quispe, 2022; Sánchez-Hernando et al., 2021). It can be further explained that social skills are important as most tasks associated with academic success require group, teamwork, and social circles (Camacho-Minuche et al., 2021; Wickramanayake, 2022).

However, the current study found contradicting results in which communication skills were not the predictor of academic achievement, making the findings different from the past studies (Arikwandu & Samuel, 2021; Jasim & Khalifa, 2020). The possible explanation is that the current

study involved local students as the majority, and in a high-context culture like Malaysia, students are often shy to communicate directly or actively when they doubt certain topics of their studies to avoid being looked down upon by their peers. This explains the insignificant results.

Conclusion

In conclusion, this study aims to examine the factors influencing the academic achievement of students at a private university in the Klang Valley area. This study found that student engagement, general knowledge, and social skills are the predictors of the student's academic achievement; however, it was found that communication skills are not a predictor.

Implications of Study

This study contributes practically to the university by suggesting that the university must have various soft skills for students to not only excel in academic performance but also to prepare them to acquire such skills to equip them for their future careers. Thus, the management of the university and the Ministry of Higher Education (KTP) make it compulsory for students to attend curricular activities as one of the requirements before graduating, and part of the marks will contribute to students' academic results while social skills can also be acquired at the same time.

Besides, the management of the university also provides a mentor-mentee system for students so that the engagement between students and instructors can be further strengthened. This will allow the instructors to provide pastoral care to students. With this support, certainly, students can perform better in their academic results. Besides, this study also implies that the syllabus or modules of courses have to incorporate higher-order thinking skills, which allow students to explore the general knowledge in various fields to complete their assignments or tasks, making them more competent in academic performance and future career paths.

Although communication skills were found not significant in this study, they are still an important aspect that students should acquire. The management of the university and the Ministry have made communication courses university subjects, which are taken by all students. Besides, before a student graduates, the university can plan to have a finishing school and resume clinic writing, which provide students with skills to prepare their resumes for academic and industrial purposes. This will undoubtedly contribute to a knowledgeable future workforce that is competent and holistic in various aspects.

Limitations and Directions of Future Research

The first limitation of this study is related to the sample size. Although it is sufficient for statistical analysis (n=150), it is unable to be generalisable due to the use of non-probability sampling. Hence, future studies can consider involving more respondents or increasing the sample size.

Besides, this study only collected the sample from a private university, while other private universities and colleges in Klang Valley regions were not included. Thus, future research can consider collecting samples from private and public universities so that comparison studies from different institutions can be carried out.

This study only applied a quantitative study. Future research can consider applying qualitative methods (e.g. interviews or focus group discussions) to gain deeper insights. The pragmatics approach (mixed method) is also timely to add variety to the research.

Last but not least, the current study only examined the four predictors, but other variables such as entrepreneurship interest and skills (Osakede et al., 2017), technology and digital skills (Ben Youssef et al., 2022) might affect the outcomes. Demographic-related variables (Indrahadi & Wardana, 2020) can be incorporated in the framework to test the mediating and moderating effects to make the model more robust and contribute to professional and continuing education scholarship.

Acknowledgement

References

Ahmad, S., Ahmad, S., & Ameen, K. (2021). A qualitative study of soft skills development opportunities: Perceptions of university information professionals. *Global Knowledge, Memory and Communication*, *70*(6/7), 489-503. https://doi.org/10.1108/gkmc-06-2020-0073

Alawamleh, M., Al-Twait, L. M., & Al-Saht, G. R. (2022). The effect of online learning on communication between instructors and students during Covid-19 pandemic. *Asian Education and Development Studies*, *11*(2), 380-400. https://doi.org/10.1108/aeds-06-2020-0131

Al Zboun, M. S., Al Ghammaz, S. A. D., & Al Zboun, M. S. (2018). The impact of the use of YouTube and Facebook on students' academic achievement in Geography course at the University of Jordan for the Bachelor's Degree. *Modern Applied Science*, *12*(3), 164-174. https://doi.org/10.5539/mas.v12n3p164

Andrade, S., & Andersen, D. (2020). Digital story grammar: A quantitative methodology for narrative analysis. *International Journal of Social Research Methodology*, *23*(4), 405-421. https://doi.org/10.1080/13645579.2020.1723205

Arikwandu, S. O., & Samuel, N. N. (2021). Examining communication as a tool for enhancing students' academic achievement in office technology and management *International Journal of Scientific and Management Research*, *4*(7), 1-16. http://doi.org/10.37502/IJSMR.2021.4704

Bakar, N. A., Yusop, H., Ali, N. M., & Bakar, N. F. A. (2023). Determinants of students' academic performance in higher learning institutions in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, *13*(2), 1496 – 1508. DOI:10.6007/IJARBSS/v13-i2/16250

Ben Youssef, A., Dahmani, M., & Ragni, L. (2022). ICT use, digital skills and students' academic performance: Exploring the digital divide. *Information*, *13*, 129. https://doi.org/10.3390/info13030129

Bondarouk, T., Ruël, H., Axinia, E., & Arama, R. (2014). What is the future of employer branding through social media? Results of the Delphi study into the perceptions of HR professionals and academics. *Social Media in Human Resources Management (Advanced Series in Management, Vol. 12)*, Emerald Group Publishing Limited, Bingley, 23-57. https://doi.org/10.1108/S1877-6361(2013)0000012006

Camacho-Minuche, G., Espinoza Celi, V., & Ulehlova, E. (2021). Cooperative language learning elements to enhance social skills in English classrooms: A case study. *Higher Education, Skills and Work-Based Learning*, *11*(5), 1116-1129. https://doi.org/10.1108/heswbl-08-2020-0176

Carlo, Y., Quispe, Q. (2022). Social skills and academic performance in educational institutions of high Andean Puno -Peru in 2020. *Journal of Positive School Psychology*, *6*(8), 1574-1583.

Casali, N., Meneghetti, C., Tinti, C., Re, A. M., Sini, B., Passolunghi, M. C., Valenti, A., Montesano, L., Pellegrino, G., & Carretti, B. (2023). Academic achievement and satisfaction among university students with specific learning disabilities: The roles of soft skills and study-related factors. *Journal of Learning Disabilities*, https://doi.org/10.1177/00222194221150786

Chin, Y. F. (2019). Malaysia: From hub to exporter of higher education and implications. *International Journal of Business and Social Science*, *10*(2), 48-54. doi:10.30845/ijbss.v10n2p6

Chtouki, Y., Harroud, H., Khalidi, M., & Bennani, S. (2019). The impact of YouTube videos on the student's learning. *2012 International Conference on Information Technology Based Higher Education and Training (ITHET)*. https://doi.org/10.1109/ithet.2012.6246045

Creo, E., Mareque, M., & Pino, I. (2020). The acquisition of teamwork skills in university students through extra-curricular activities. *Education + Training*, *63*(2), 165-181. https://doi.org/10.1108/et-07-2020-0185

Department of Statistic Malaysia. (2022). Retrieved from Graduates Statistics 2021: https://www.dosm.gov.my/v1/index.php?r=column/pdfPrev&id=N0w0QU95YklKRDFo QWhSV3F6N3NHQT09

Economic Planning Unit, Prime Minister's Department, Malaysia. (2021). *Twelfth Malaysia Plan, 2021-2025, A Prosperous, Inclusive, Sustainable Malaysia*. Putrajaya: Percetakan Nasional Malaysia Berhad.

Ede, M., & Igbokwe, U. (2018). Meta-analysis of the effects of mastery learning on students' academic achievements in Nigeria. *Journal of Applied Research in Higher Education*, *10*(4), 547-555. https://doi.org/10.1108/jarhe-02-2018-0029

Garg, N., Talukdar, A., Ganguly, A., & Kumar, C. (2021). Knowledge hiding in academia: An empirical study of Indian higher education students. *Journal of Knowledge Management*, *25*(9), 2196-2219. https://doi.org/10.1108/jkm-10-2020-0783

Golan, Z., Hadar, I., & Klein, J. (2019). Equity in education: the Israeli case. *International Journal of Educational Management*, *33*(7), 1670-1685. https://doi.org/10.1108/ijem-09-2018-0291

Govindarajoo, M. V., Selvarajoo, N. D., & Ali, M. S. (2022). Factors contributing to poor academic achievement among low performing pupils: A case study. *Asian Journal of University Education (AJUE)*, *18*(4), 981-997. https://doi.org/10.24191/ajue.v18i4.20008

Guilford, J. P. (1973). *Fundamental statistics in psychology and education*. New York, NY: McGraw-Hill.

Hair, J., Black, W., Babin, B., & Anderson, R. (2018). *Multivariate data analysis* (8th ed.). Cengage Learning EMEA.

Hibel, J., Penn, D., & Morris, R. (2016). Ethno-racial concordance in the association between academic self-efficacy and achievement during elementary and middle school. *Education and Youth Today*, *(Sociological Studies of Children and Youth, Vol. 20)*, Emerald Group Publishing Limited, Bingley, 31-63. https://doi.org/10.1108/S1537-466120160000020002

Indrahadi, D., & Wardana, A. (2020). The impact of sociodemographic factors on academic achievements among high school students in Indonesia. *International Journal of Evaluation and Research in Education (IJERE)*, *9*(4), 1114~1120. DOI: 10.11591/ijere.v9i4.20572

Jasim, B., & Khalifa, M. (2020). Evaluation of students' communication skills and academic performance in the University of Baghdad. *Iraqi National Journal of Nursing Specialties*, *32*(2), 1–10.

Jirout, J. J., Ruzek, E., Vitiello, V. E., Whittaker, J., & Pianta, R. C. (2023). The association between and development of school enjoyment and general knowledge. *Child Development*, *94*(2), e119-e127. https://doi.org/10.1111/cdev.13878

Kang H. (2021). Sample size determination and power analysis using the G*Power software. *Journal of Educational Evaluation for Health Professions*, *18*, 17. https://doi.org/10.3352/jeehp.2021.18.17

Madden, A., Webber, S., Ford, N., & Crowder, M. (2018). The relationship between students' subject preferences and their information behaviour. *Journal of Documentation*, *74*(4), 692-721. https://doi.org/10.1108/jd-07-2017-0097

Mehta, N. K., & Jha, S. (2021). Facilitation of team communication skill among engineers: An empirical study. *Higher Education, Skills and Work-Based Learning*, *11*(2), 435-453. https://doi.org/10.1108/heswbl-04-2019-0055

Moore, P. J. (2019). Academic achievement. *Educational Psychology: An International Journal of Experimental Educational Psychology*, *39*(8), 981-983. https://doi.org/10.1080/01443410.2019.1643971

Moubayed, A., Injadat, M., Shami, A., & Lutfiyya, H. (2018). Relationship between student engagement and performance in e-learning environment using association rules. *2018 IEEE World Engineering Education Conference (EDUNINE)*, Buenos Aires, Argentina, 1-6, doi: 10.1109/EDUNINE.2018.8451005

Mulugeta, A., & Pandian, A. V. R. (2022). Effect of time management practices on academic achievement of students in higher educational institutions of Ethiopia: The case of Dire Dawa University. *Manager - The British Journal of Administrative Management, 58*(148), 120-129.

Munohsamy, T. & Muniandy, S. (2023). The influence of communication skills on teaching performance of a private secondary school in Brunei Darussalam. *Malaysian Journal of Social Sciences and Humanities*, *8*(1), e002043. https://doi.org/10.47405/mjssh.v8i1.2043

Norazlan, N., Yusuf, S., & Al-Majdhoub, F.M.H. (2020). The financial problems and academic performance among public university students in Malaysia. *The Asian Journal of Professional and Business Studie*s, *1*(2), 1-6.

Osakede, U. A., Lawanson, A. O. & Sobowale, D. A. (2017). Entrepreneurial interest and academic performance in Nigeria: Evidence from undergraduate students in the University of Ibadan. *Journal of Innovation and Entrepreneurship*, *6*, 19. https://doi.org/10.1186/s13731-017-0079-7

Owusu-Agyeman, Y., & Amoakohene, G. (2021). Student engagement and perceived gains in transnational education in Ghana. *International Journal of Comparative Education and Development*, *23*(4), 297-326. https://doi.org/10.1108/ijced-11-2020-0085

Oyewobi, L., Bolarin, G., Oladosu, N., & Jimoh, R. (2020). Influence of stress and coping strategies on undergraduate students' performance. *Journal of Applied Research in Higher Education*, *13*(4), 1043-1061. https://doi.org/10.1108/jarhe-03-2020-0066

Park, S., & Robinson, P. (2021). The effect of online academic coaches on supporting graduate students' performance in intensive online learning environments: A three-course comparison. *European Journal of Training and Development*, *46*(1/2), 70-85. https://doi.org/10.1108/ejtd-10-2020-0144

Patacsil, F. F., & Tablatin, C. L. S. (2017). Exploring the importance of soft and hard skills as perceived by internship students and industry: A gap analysis. *Journal of Technology and Science Education*, *7*(3), 347-368. http://dx.doi.org/10.3926/jotse.271

Portuguez Castro, M., Gómez Zermeño, M. G. (2021). Identifying entrepreneurial interest and skills among university students. *Sustainability*, *13*, 6995. https://doi.org/10.3390/su13136995

Sánchez-Hernando, B., Juárez-Vela, R., Antón-Solanas, I., Gasch-Gallén, Á., Melo, P., Nguyen, T. H., Martínez-Riera, J. R., Ferrer-Gracia, E., & Gea-Caballero, V. (2021). Association between life skills and academic performance in adolescents in the autonomous community of Aragon (Spain). *International Journal of Environmental Research and Public Health*, *18*(8), 4288. https://doi.org/10.3390/ijerph18084288

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson Education Limited.

Siddiqi, A. (2014). An observatory note on tests for normality assumptions. *Journal of Modelling Management, 9*(3), 290-305. doi: 10.1108/JM2-04-2014-0032

Siddiqi, A., Shabbir, M., Abbas, M., Mahmood, A., & Salman, R. (2022). Developing and testing student engagement scale for higher educational students. *Journal of Applied Research in Higher Education*, *14*(1), 424-439. https://doi.org/10.1108/jarhe-11-2020-0388

Singh, L., Kumar, A., & Srivastava, S. (2021). Academic burnout and student engagement: A moderated mediation model of internal locus of control and loneliness. *Journal of International Education in Business*, *14*(2), 219-239. https://doi.org/10.1108/jieb-03-2020-0020

Starpicks (2022, Sep 22). *Internationalising The Nation's Higher Education*. The Star. Retrieved from https://www.thestar.com.my/news/nation/2022/09/22/internationalising-the-nations-higher-education

Sukor, R., Mohy Ayub, A. F., Ab Rashid, N. K. M., & Abdul Halim, F. (2021). Relationship between students' engagement with academic performance among non-food science students enrolled in food science course. *Journal of Turkish Science Education*, *18*(4), 638-648. DOI: 10.36681/tused.2021.95

Tongco, M. D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research and Applications*, 5, 147-158. https://doi.org/10.17348/era.5.0.147-158

Urquía-Grande, E., & Estébanez, R. (2020). Bridging the gaps between higher education and the business world: Internships in a faculty of economics and business. *Education + Training*, *63*(3), 490-509. https://doi.org/10.1108/et-01-2018-0017

Vuori, V., & Okkonen, J. (2017). Knowledge sharing motivational factors of using an intra-organizational social media platform. *Journal of Knowledge Management*, *16*(4), 592-603. https://doi.org/10.1108/13673271211246167

Wickramanayake, L. (2022). Social media use by adolescent students of Sri Lanka: Impact on learning and behavior. *Global Knowledge, Memory and Communication*, *71*(1/2), 70-85. https://doi.org/10.1108/gkmc-08-2020-0123

Zhan, Y., Tan, K., Chung, L., Chen, L., & Xing, X. (2020). Leveraging social media in new product development: organizational learning processes, mechanisms and evidence from China. *International*

Journal of Operations & Production Management, *40*(5), 671-695. https://doi.org/10.1108/ijopm-04-2019-0318

Zhou, Z., & Mustappha, S. M. (2022). A literature review on the academic achievement of college students. *Journal of Education and Social Sciences*, *20*(1), 11-18.