The Correlation Between Personality Types and Academic Performance Among ELT Students

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Abstract

This study investigates the correlation between extroversion, introversion, and academic performance in English Language Teaching (ELT). Using a quantitative correlational design, data were collected from 91 ELT students through MBTI-based personality assessments and GPA records. The results (Spearman's rho = 0.08, p = 0.43) show no significant correlation, indicating that personality type alone does not determine academic success. Instead, learning strategies, motivation, and teaching methods play a more significant role. These findings highlight the importance of shifting from personality-based teaching to adaptable learning strategies that support students with diverse learning styles. Future research should explore how psychological and environmental factors interact to influence academic achievement in ELT contexts.

INTRODUCTION

The relationship between personality types and academic performance has been widely debated in education. In English Language Teaching (ELT), which emphasizes verbal participation and social interaction, personality types influence students' engagement and learning strategies (Harianti & Agustina, 2023; Mammadov, 2022; Paradila et al., 2021). Extroverts excel in oral communication and collaboration, whereas introverts perform better in analytical and independent tasks (Paradila et al., 2021). However, studies on the impact of personality types on long-term academic performance show conflicting results. Some studies suggest a strong correlation between personality types and academic success (Mammadov, 2022), while others report no significant relationship (El-Sheikh et al., 2022). These inconsistencies suggest that multiple factors contribute to academic success, including personality types, learning environments, and assessments. Further research is required to clarify the influence of personality types on long-term academic achievement.

A widely used framework for analyzing personality types is the Myers-Briggs Type Indicator (MBTI), which categorizes individuals based on cognitive and behavioral tendencies (Briggs & Myers, 2010). MBTI is commonly applied

in educational research to examine how personality types affect learning styles and academic engagement (Paradila et al., 2021). However, most studies have focused on its role in specific language skills, such as speaking, writing, and reading, rather than overall academic performance. Additionally, much of the existing research relies on cross-sectional designs, making it difficult to determine whether personality types have a lasting effect on students' academic trajectories (Zeichner, 2019). Furthermore, most studies have been conducted outside Indonesia, including Pakistan Taskeen & Ahmed, 2023), China (Cao & Meng, 2020), and Saudi Arabia (Aljuaid, 2022), which limits their relevance to the Indonesian higher education system. These gaps highlight the need for a more comprehensive investigation into how personality types relate to long-term academic performance, particularly in ELT programs in Indonesia.

Empirical data from an English Education Study Program at an Indonesian university reveal fluctuations in students' cumulative GPAs across different cohorts. The 2018 cohort had GPAs ranging from 3.02 to 3.79, while the 2019 cohort experienced a decline with GPAs between 2.21 and 3.79. In contrast, the 2020 cohort improved, with GPAs ranging from 3.23 to 3.87. These variations indicate that multiple factors, including personality types, influence academic performance. Despite the potential impact of personality types on learning behaviors and academic outcomes, their relationship with long-term academic performance remains underexplored, necessitating further empirical investigation.

This study examines the correlation between MBTI-based extroversion-introversion and cumulative GPA over seven semesters in an Indonesian ELT program to address this gap. Using a quantitative correlational approach, this study applies Spearman's rho test to determine the strength and significance of the relationship between personality types and GPA. The findings will clarify how personality types impact academic success and inform pedagogical strategies suited to students' learning styles. This research explores the correlation between personality traits (extroversion/introversion) and academic performance (GPA) among ELT students, testing the hypothesis that a significant relationship exists between these variables.

By addressing this question, this study contributes to educational psychology and ELT pedagogy, particularly in enhancing instructional strategies that accommodate different personality types. Understanding the relationship between personality types and academic performance will enable educators to develop more personalized and effective teaching methods, ultimately optimizing students' learning experiences and academic achievements.

RESEARCH METHODOLOGY

This study employed a quantitative correlational approach to examine the relationship between personality types (extroversion-introversion) and academic performance among ELT students at a university in Indonesia. A

correlational design was used to analyze this relationship without manipulating variables, making it suitable for studying naturally occurring patterns (Creswell, 2018; Harianti & Agustina, 2023; Radebe & Mushayikwa, 2023). The population consisted of 224 active eighth-semester students from the 2018, 2019, and 2020 cohorts of the English Education Study Program at one university in Indonesia. This study employed simple random sampling to ensure equal probability of selection and enhance generalizability (Li et al., 2018). The required minimum sample size, determined using G*Power v.3.1.9.7 (α = 0.05, power = 0.8, effect size = 0.3), was 82 participants, with a final total of 91 students completing the study (Radebe & Mushayikwa, 2023).

The research utilized two primary instruments: the Myers-Briggs Type Indicator (MBTI) questionnaire and cumulative GPA. The MBTI questionnaire, adapted from Richard L. Daft (2008), consisted of 32 validated statements that classified individuals into extroverts (coded as 1) and introverts (coded as 0) (Jaber et al., 2022; Li et al., 2018; Myers & Myers, 2010; Zeichner, 2019). Academic performance was measured using cumulative GPA from the 7th semester (Nambudiri et al., 2019; Teng, 2024). Data collection was conducted using Google Forms for MBTI responses, while GPA records were retrieved from the university's academic database, with verification ensuring data completeness and accuracy.

Data analysis was conducted using JASP software version 0.19.1. The Shapiro-Wilk test ($p < 0.001$) indicated that GPA data were not normally distributed. The ANOVA test ($p = 0.51$) showed no significant linear relationship between variables. Therefore, Spearman's rho correlation, a non-parametric test for ordinal data, was used to measure the strength and direction of association between personality type and GPA. The analysis produced Spearman's rho (ρ) coefficient, p-value, and Rho squared (ρ^2), representing correlation strength, statistical significance, and the proportion of variance in GPA explained by personality type. A p-value below 0.05 was considered statistically significant (Cao & Meng, 2020). Descriptive statistics were used to summarize data distributions, including mean, median, and standard deviation.

The MBTI instrument has been widely used in educational psychology research and is considered reliable for assessing personality types (Li et al., 2018; Myers & Myers, 2010; Radebe & Mushayikwa, 2023). The reliability of GPA as a performance measure was supported by its consistent use in higher education research (Jaber et al., 2022; Ramli et al., 2024). Studies also indicated that MBTI results remained stable, although external factors may influence personality-related learning behaviors (Aljuaid, 2022; Ke, 2024).

This study focused solely on the extroversion-introversion dimension of MBTI. It did not consider other personality types or external academic influences such as study habits, motivation, or socio-economic background. The findings were limited to students from a single university in Indonesia, which may affect generalizability to other educational settings. GPA was the sole

measure of academic performance, which may not fully reflect students' overall learning achievements.

RESULT AND DISCUSSION
Research Results
Descriptive Statistics

Descriptive statistical analysis was conducted to examine the distribution of students' Cumulative GPAs and personality types. The table below presents the descriptive statistics of the students' GPA:

Table 1. Descriptive Statistics of ELT Students' GPA

No	Statistic	GPA
1	Valid	91
2	Mode	3.500
3	Median	3.590
4	Mean	3.552
5	Std. Deviation	0.144
6	Minimum	2.980
7	Maximum	3.870

The average GPA is relatively high (M = 3.552, SD = 0.144), indicating overall strong academic performance among ELT students. The relatively small standard deviation indicates that most students performed consistently well in their studies. Based on GPA categories, the distribution of students is as follows:

Table 2. GPA Distribution of ELT Students

GPA (Category)	Frequency	Percent
2.51 - 2.99	1	1.10%
3.00 - 3.50	29	31.87%
3.51 - 4.00	61	67.03%

Most students demonstrated relatively high academic performance, with the majority (67.03%) achieving a GPA between 3.51 and 4.00. The distribution of personality types among ELT students is shown in the table below:

Table 3. Distribution of Personality Types of ELT Students

Personality Types	Frequency	Percent
Introvert (0)	28	30.77%
Extrovert (1)	63	69.23%

The findings indicate that extroverted students outnumber introverted students (69.23% vs. 30.77%), which aligns with the communicative nature of ELT learning environments.

Spearman's Rho Correlation Analysis

Spearman's rho correlation analysis was applied to examine the relationship between personality type and academic performance, as the data did not meet normality and linearity assumptions.

Table 4. Correlation Between Personality Types and GPA

Variable	GPA Category	Personality Types
Spearman's rho	-	0.08
p-value	-	0.43

The analysis revealed a weak and statistically insignificant correlation (ρ = 0.08, p = 0.43), indicating that personality type does not meaningfully influence GPA. The rho squared value ($\rho^2 = 0.0064$) further confirms that personality type accounts for only 0.64% of GPA variation, suggesting that other factors play a more significant role in determining academic success.

Discussions

The findings align with previous research that emphasizes the minor role of personality types in academic achievement (Jaber et al., 2022; Jumareng et al., 2021), suggesting that factors such as self-regulated learning and instructional design might have a more significant impact (Teng, 2024).

Extroverts and introverts display different learning behaviors (Jung, 1921; Myers & Myers, 2010). However, these differences alone do not lead to varying academic outcomes without the support of effective learning strategies. This finding aligns with the Self-Regulated Learning Theory Zimmerman (2002) and Pintrich (2004) model, which emphasizes the importance of metacognitive strategies. Likewise, Wu et al. (2023) demonstrated that self-regulated strategies can improve learning outcomes regardless of personality type.

In the context of Indonesian ELT students, cultural learning habits, educational expectations, and collaborative classroom settings may reduce the impact of personality types on GPA. Additionally, factors such as curriculum design, assessment methods, and institutional support could also contribute to minimizing the influence of personality types on academic performance. For instance, standardized instructional approaches may limit opportunities for individual personality types to influence learning outcomes. Strong motivation (Cao & Meng, 2020), personalized feedback (Zeichner, 2019), and adaptive strategies like graphic organizers (Sabarun et al., 2023) collectively support diverse learning needs and contribute to academic success.

When compared with previous studies, these findings are consistent with research showing no significant correlation between personality types and overall academic performance. On the other hand, they contrast with Jumareng et al. (2021), who found that introverts outperformed extroverts in physical education. These differences suggest that the influence of personality types on academic success may vary depending on the discipline, cultural context, and nature of the learning environment.

Considering these insights, this study helped fill a gap in understanding the role of MBTI personality types in the academic performance of Indonesian ELT students. The results emphasized that promoting self-regulated learning and adaptive instructional strategies was more effective for supporting academic achievement than relying on personality types.

Despite these contributions, it is important to recognize the limitations of this study. The sample was limited to one institution, which may restrict the generalizability of the findings. Additionally, other potential influencing factors, such as emotional intelligence, learning styles, or socio-economic background, were not considered and could be explored in future research.

Therefore, based on these considerations, educators should focus on creating learning environments that enhance motivation, deliver meaningful feedback, and strengthen students' self-regulation skills. Such efforts will help support academic success across diverse learner profiles. These findings provide valuable insights for enhancing English language teaching practices, particularly in similar educational contexts within Indonesia and beyond.

CONCLUSION

This study found no significant correlation between extrovert and introvert personality types and the academic performance of ELT students, as measured by cumulative GPA. These findings emphasize that other factors, such as learning strategies and teaching methods, play a more crucial role in academic success.

The implications of this study highlight the importance of flexible and adaptive teaching approaches rather than personality-based instruction. Educators are encouraged to develop flexible and adaptive teaching strategies that accommodate diverse learning styles, such as discussions for extroverted students and reflective tasks for introverted students. Additionally, future research should explore other influential factors, such as self-regulated learning and academic environments, to enhance the effectiveness of ELT instruction in higher education.

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