

# Pengaruh Personaliti Lima Faktor Terhadap Prestasi Belajar Dalam Kalangan Pegawai Tentera Di Kolej Pegawai, Port Dickson

## Influence of Five Factors Personality toward Learning Performance at Officers' College, Port Dickson

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### Abstract

In carrying out the training, one of the aspects that need to be paid attention to is related to the trainees. Personality of the trainee influences how they react during training, which predicts the level of training effectiveness. This study was conducted to examine the influence of five personality factors (openness, conscientiousness, extraversion, agreeableness, and neuroticism) on learning performance. This study categorizes learning performance into three outcomes: cognitive, affective, and skill. A total of 418 officers who attended the G2 and G3 Staff and Tactics Course at the Officers' College, Port Dickson were involved as respondents. The analysis of the study data shows that the cognitive outcomes are influenced by the conscientiousness factor. While the affective outcomes are influenced by agreeableness and openness. Conscientiousness and extraversion are significant predictors of skill-based outcomes. The findings of the study show that different personality factors affect different learning performance outcomes. It can be used by training providers to design training that is relevant to the trainees and the desired training objectives.

**Keywords:** Personality, Learning Performance, Cognitive Outcomes, Affective Outcomes, Skill-Based Outcomes

### Introduction

Individual personality is an important factor in determining how individuals will behave. Personality is a dynamic and organized set of characteristics possessed by an individual that

influences their thoughts, motivations, and behaviors in various situations (Deniz & Ortosun, 2010). Identifying the personality traits of trainees is crucial in training because it allows trainers to assess the extent to which trainees react and behave during the training process. If the personality does not align with the training methods, the effectiveness of the training will decrease as the trainees may lack interest in actively participating. In this study, to assess training effectiveness, trainees' learning performance encompassing cognitive outcomes, skill outcomes, and affective outcomes has been identified.

In military-related research, personality can act as an independent variable (Sabahattin, 2020; Skoglund et al., 2020; Bekesiene, 2023) or as a dependent variable (Jackson et al., 2012; Navajas et al., 2022). Military training incorporates several socialization processes that create an ideal environment where changes in personality traits can occur (Roberts et al., 2008). There are also studies that examine the extent to which military experience significantly influences the personality of military personnel (Jackson et al., 2012). This is due to a work environment that requires strict adherence to 'command and order,' especially from individuals of higher rank. For military personnel, their personalities are also influenced by military culture and environment (Dretsch et al., 2021). This is because the strong hierarchical system emphasizes compliance with the chain of command from superiors. This directly influences the actions taken by military personnel, especially in work-related tasks and responsibilities.

### **Literature Review**

Studies examining the extent to which work culture influences personality development have been widely conducted. As is well known, the work culture of uniformed bodies places significant emphasis on 'command and order.' This work culture impacts the personality of individuals with careers in uniformed organizations. In the military context, research by McHenry et al. (1990) found that mental ability and conscientiousness strongly influence military performance. Their findings indicate that personality is a stronger predictor of performance for military personnel compared to civilians. Similarly, Vickers et al. (1996) reported that high conscientiousness and low neuroticism significantly affect military training. Among both military recruits and civilian workers, changes in personality affect individual maturity levels, with increases in agreeableness and conscientiousness and decreases in neuroticism (Caspi et al., 2005).

However, findings by Jackson et al. (2012) contradicted previous research. Jackson et al. (2012) argued that military training is associated with lower levels of agreeableness compared to civilian service ( $d = -0.19$ ,  $p < .001$ ). This finding was supported by the reasoning that individuals with higher agreeableness levels tend to respond slower and are less likely to react aggressively, even when presented with aggression cues (Meier et al., 2006). Thus, lower agreeableness levels may be advantageous for military personnel, as it enables quicker reactions in life-or-death situations.

In the context of this study, the researchers posit that students' academic success in learning processes is comparable to learning performance during training. Good academic achievement serves as a strong indicator of the extent to which learning and teaching processes have occurred since both involve similar procedures. Personality, as a stable psychological quality, plays a crucial role as a predictor of academic achievement. Academic

achievement can be categorized as the learning performance obtained when the learning process occurs. Numerous studies have examined the influence of personality factors on students' academic achievement (Lei et al., 2011; Harsha et al., 2015).

Most studies on personality and performance focus on students' academic achievement, whether in schools or higher education institutions (Kamilah & Zurina, 2019; Begum et al., 2021; Wang et al., 2023). Findings by Zali and Surat (2022), revealed that all five personality traits—openness, conscientiousness, extraversion, agreeableness, and neuroticism—differently influence students' academic achievement. Research by Chamorro-Premuzic and Furnham (2003), involving 70 students from two British universities found that conscientiousness and neuroticism impact learning performance, predicting overall final examination scores beyond several other academic predictors. These traits accounted for over 10% of the unique variance in overall exam scores. High conscientiousness positively influenced academic achievement, while high neuroticism negatively impacted it.

However, a study by Thorp et al. (2023) examining the relationship between the five-factor personality traits and training effectiveness in virtual reality found that individuals with high conscientiousness performed poorly during training. This was likely due to the disorganized work environment and the challenging virtual system, which depleted cognitive resources that could have been used to learn tasks. Additionally, individuals with high conscientiousness reportedly performed poorly on new and unconventional tasks. The study also found that agreeableness was significantly associated with training effectiveness.

Meanwhile, a study by Hakimi et al. (2011) on 285 students reported that extraversion and neuroticism negatively correlated with academic achievement, while conscientiousness, openness, and agreeableness were positively correlated with academic achievement. The findings also revealed that conscientiousness had the greatest influence on students' academic performance. These results were further supported by Chen et al. (2021), who found that agreeableness positively influenced student performance. This is because agreeable individuals are typically more cooperative, virtuous, and trustworthy, traits that help students achieve better results. The study also highlighted that agreeableness, conscientiousness, and openness positively correlated with students' cumulative grade point averages (CGPA).

Morales et al. (2020) conducted a study on 305 adolescents to examine the role of personality, maturity, and intelligence in their academic performance. Their findings revealed that conscientiousness influenced academic performance due to its association with maturity in work orientation. Openness also indirectly influenced academic performance through its relationship with intelligence.

### **Research Objectives**

1. To identify the relationship between personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism) and learning performance (cognitive outcomes, affective outcomes, and skill outcomes).
2. To determine the association of personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism) on learning performance (cognitive outcomes, affective outcomes, and skill outcomes).

### Conceptual Framework

In this study, the researcher focuses on the five personality traits—openness, conscientiousness, extraversion, agreeableness, and neuroticism—as the independent variables. Meanwhile, for the dependent variable, learning performance is divided into three main components: cognitive outcomes, affective outcomes, and skill outcomes. Hence, this study will examine the extent to which individual personality traits influence their learning performance during training, as assessed through cognitive, affective, and skill outcomes. The conceptual framework of the study is illustrated in Figure 1.

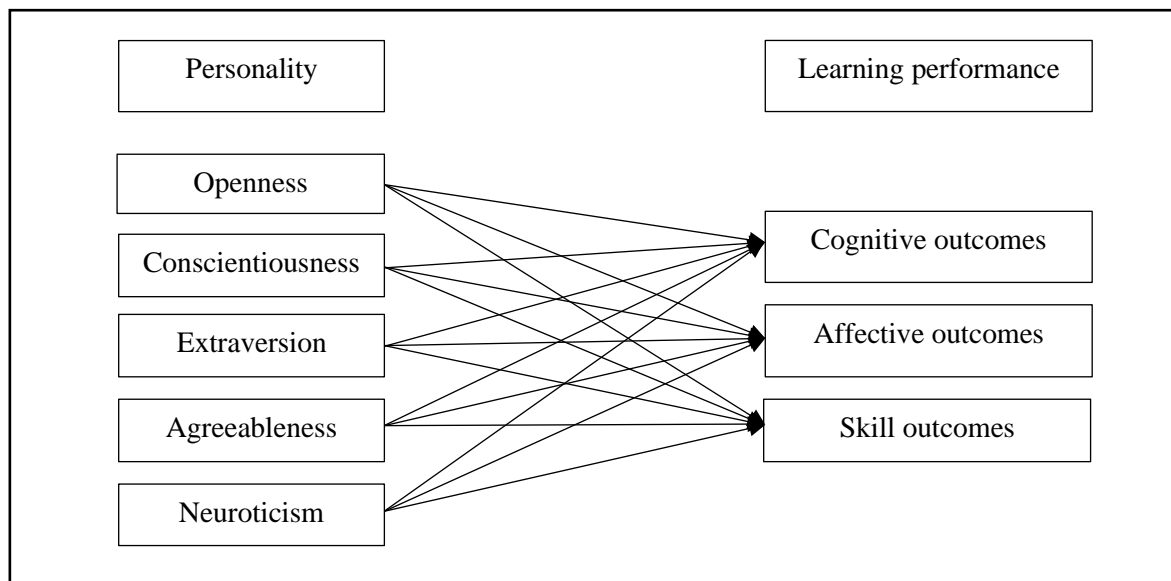


Figure 1. Conceptual Framework of the Influence of Personality Traits and Training Program Characteristics on Learning Performance

### Methodology

This study is a survey involving 418 military officers enrolled in the G2 and G3 Staff and Tactics Course at the Officers College of the Army Academy in Port Dickson as the study respondents. Data were collected in two phases: during training and after training. For the independent variables, personality and learning motivation, data were collected while the training was in progress. Data for the dependent variables which are cognitive outcomes, affective outcomes, and skill outcomes were collected after the training. This is because cognitive and skill outcomes were derived from the trainees' written test scores and practical test scores, while affective outcomes were based on the trainees' self-evaluation of their experience during the training.

To measure the independent variable, personality traits, the International Personality Item Pool (IPIP) questionnaire developed by Goldberg (1998), was utilized. For the dependent variable, several questionnaires were employed to assess affective outcomes related to work attitudes. These include the Job Satisfaction Questionnaire by Brayfield and Rothe (1951), the Organizational Commitment Questionnaire by Allen and Meyer (1990), and the Turnover Intention Questionnaire by Mobley et al. (1978). Additionally, motivational dispositions were measured using the Multidimensional Work Motivation Scale, self-efficacy was assessed with

the General Self-Efficacy Scale, and goal-setting was evaluated using the Modified Goal-Setting Questionnaire.

The data were analysed using SPSS (Statistical Package for the Social Sciences) Version 27. A multiple regression analysis with the enter method was performed to examine the influence of the independent variables on the dependent variables.

### Research Findings

The descriptive results show that the majority of respondents were male, totaling 369 individuals (88.3%), while the remaining 49 individuals (11.7%) were female. A total of 148 respondents (35.4%) were aged between 26 and 30 years. The largest age group comprised respondents aged 31 to 35 years, with 184 individuals (44.1%). Meanwhile, 76 respondents (18.2%) were aged between 36 and 40 years, and 10 respondents (2.4%) were aged between 41 and 45 years.

In terms of educational attainment, 2 respondents (0.5%) held SPM/STPM/Certificate qualifications, 26 respondents (6.2%) had diploma-level education, 376 respondents (90.0%) held a bachelor's degree, and 14 respondents (3.3%) possessed a master's degree or PhD.

### Relationship Between Variables

Table 1

*Correlation Between Personality Traits and Learning Performance*

Variable	Cognitive Outcomes (r)	Skill Outcomes (r)	Affective Outcomes (r)
Openness	.179**	.230**	.790**
Conscientiousness	.588**	.593**	.488**
Extraversion	.428**	.473**	.500**
Agreeableness	.537**	.534**	.526**
Neuroticism	-.044	-.027	.053

The table also shows that four personality factors have a significant relationship with cognitive outcomes. The factor of conscientiousness has the strongest relationship with cognitive outcomes, with  $r = 0.588$ ,  $p < 0.01$ . Meanwhile, agreeableness and extraversion each have a significant relationship with cognitive outcomes, with values of  $r = 0.537$ ,  $p < 0.01$ , and  $r = 0.428$ ,  $p < 0.01$ , respectively. Next, openness shows a correlation value of  $r = 0.179$ ,  $p < 0.01$ . On the other hand, neuroticism does not have a significant relationship with cognitive outcomes ( $r = -0.044$ ,  $p > 0.001$ ).

For skill outcomes, the table shows that four personality factors have a significant relationship with skill outcomes. The factor of conscientiousness has the strongest relationship with skill outcomes, with  $r = 0.593$ ,  $p < 0.01$ . Meanwhile, agreeableness and extraversion each have a significant relationship with cognitive outcomes, with values of  $r = 0.534$ ,  $p < 0.01$ , and  $r = 0.473$ ,  $p < 0.01$ , respectively. Next, openness shows a correlation value of  $r = 0.230$ ,  $p < 0.01$ . On the other hand, neuroticism does not have a significant relationship with cognitive outcomes ( $r = -0.027$ ,  $p > 0.001$ ).

Next, for affective outcomes, four personality factors—openness ( $r = 0.790$ ,  $p < 0.001$ ), agreeableness ( $r = 0.526$ ,  $p < 0.001$ ), extraversion ( $r = 0.500$ ,  $p < 0.001$ ), and conscientiousness ( $r = 0.488$ ,  $p < 0.001$ )—have a significant relationship with affective outcomes. Meanwhile, the neuroticism factor ( $r = 0.053$ ,  $p > 0.001$ ) does not have a significant relationship with affective outcomes.

#### *The Influence of Personality Factors on Learning Performance (Cognitive Outcomes)*

The results of the direct influence test show that only the conscientiousness factor significantly influences the cognitive outcomes of military officers undergoing training at the Officer College ( $\beta = 0.471$ ,  $p < 0.05$ ), contributing a variance value of 59.8% ( $R^2 = 0.598$ ). This means that 40.2% of the variance change in cognitive outcomes is influenced by other factors. The personality factors of openness ( $\beta = -0.074$ ,  $p > 0.05$ ), extraversion ( $\beta = 0.059$ ,  $p > 0.05$ ), agreeableness ( $\beta = 0.123$ ,  $p > 0.05$ ), and neuroticism ( $\beta = -0.036$ ,  $p > 0.05$ ) do not contribute significantly to cognitive outcomes.

Table 2

#### *Regression Analysis of Personality Factors as Predictors of Cognitive Outcomes*

Variable	Standardized beta ( $\beta$ )	t	K
Personality			
Openness	-.074	-1.662	.097
Conscientiousness	.471	5.972	<.001
Extraversion	.059	1.040	.299
Agreeableness	.123	1.527	.128
Neuroticism	-.036	-.905	.366

\* $k < .05$   $R^2 = .598$   $F = 45.655$

#### *Influence of Personality Factors on Learning Performance (Affective Outcomes)*

The results of the direct effect test show that only the factors of agreeableness ( $\beta = .130$ ,  $k < .05$ ) and openness ( $\beta = .675$ ,  $k < .05$ ) significantly influence the affective outcomes of military officers undergoing training at the Officers College, contributing to a variance of 82.2% ( $R^2 = .822$ ). This means that 17.8% of the variance in affective outcomes is influenced by other factors. The personality factors conscientiousness ( $\beta = .074$ ,  $k > .05$ ), extraversion ( $\beta = .073$ ,  $k > .05$ ), and neuroticism ( $\beta = .041$ ,  $k > .05$ ) do not significantly contribute to affective outcomes.

Table 3

#### *Regression Analysis of Personality Factors as Predictors of Affective Outcomes*

Variable	Standardized beta ( $\beta$ )	t	K
Personality			
Openness	.675	21.222	<.001
Conscientiousness	.074	1.317	.188
Extraversion	.073	1.809	.071
Agreeableness	.130	2.269	.024
Neuroticism	.041	1.441	.0150

#### *Influence of Personality Factors on Learning Performance (Skill Outcomes)*

The final analysis examines the direct influence of personality factors on skill outcomes. The results show that only the conscientiousness ( $\beta = .471$ ,  $k < .05$ ) and extraversion ( $\beta = .129$ ,



$k < .05$ ) factors significantly influence the skill outcomes of the military officers participating in training at the Officer College, contributing 60.4% of the variance ( $R^2 = .604$ ). This means that 39.6% of the variance in affective outcomes is influenced by other factors. The personality factors openness ( $\beta = -.022$ ,  $k > .05$ ), agreeableness ( $\beta = .053$ ,  $k > .05$ ), and neuroticism ( $\beta = -.024$ ,  $k > .05$ ) do not significantly contribute to skill outcomes.

Table 4

*Regression Analysis of Personality Factors as Predictors of Skill Outcomes*

Variable	Standardized beta ( $\beta$ )	t	K
Personality			
Openness	-.022	-.492	.623
Conscientiousness	.471	6.005	<.001
Extraversion	.129	2.277	.023
Agreeableness	.053	.668	.505
Neuroticism	-.024	-.601	.548

\* $k < .05$   $R^2 = .604$   $F = 47.313$

**Discussion**

The findings of this study reveal that conscientiousness is the only personality factor that influences cognitive outcomes. Studies on cognitive outcomes are often conducted with academic performance or achievement as the dependent variable. Conscientiousness and high intellectual ability are associated with a greater tendency for time management, effort, and higher cognitive skills such as reasoning, critical thinking, and metacognition (Barrick et al., 1993; Bidjerano & Dai, 2007). These findings support the results of Meyer et al. (2024), who stated that the interaction between conscientiousness and cognitive ability influences students' learning outcomes.

Affective outcomes are determined by trainees based on how much they feel that the training they undergo impacts them in terms of attitude, motivation, self-efficacy, and goal-setting (Kraiger et al., 1993). The findings for affective outcomes indicate that only the factors of openness and agreeableness are significant predictors. These findings differ from previous studies that suggested intrinsic motivation is related to conscientiousness. It is a personality factor with predictive validity across different occupations in both civilian and military settings (Barrick & Mount, 1991; Salgado, 1998; Darr, 2009). The results of this study may be influenced by other factors such as training methods, work culture, and the trainees' social environment. The results show that individuals with high scores on the personality factor of openness tend to engage in new experiences, curiosity, and an interest in exploring their lives (Costa & McCrae, 1992). High openness makes trainees more open to learning new things, triggering personal satisfaction during the learning process.

For skill outcomes, extraversion has a positive influence. This is supported by Yusooff et al. (2014), who stated that extraversion is significantly related to emotional intelligence (EQ). Extraverted individuals tend to have high emotional intelligence, are active in organizations, have stable emotions, and are good at socializing with others. In skills-based training, one of the key aspects emphasized is the training methods used. Skill outcomes are determined by the practical training undergone by the trainees. This practical training involves the trainees

interacting with one another and working in groups. Furthermore, individuals with high extraversion are likely to engage in effective communication and meaningful discussions. At the Officer College, the training programs require high energy levels from trainees, which explains the strong correlation between extraversion and training performance. This assertion is supported by Dean et al. (2006), who conducted a study on the influence of personality on training performance among 370 marine corps members in an institution recruiting for the Marine Corps. By actively exchanging ideas and perspectives, they are able to explore new approaches to problem-solving and acquire skill outcomes through the practical training conducted (Tsai et al., 2024). This supports the idea that extraversion is a crucial predictor in determining skill outcomes.

### Conclusion and Recommendations

Overall, this study supports personality theory, which suggests that different personality factors influence different learning outcomes. For cognitive outcomes, the only significant predictor is conscientiousness. Agreeableness and openness have an impact on affective outcomes, while extraversion influences skill outcomes. The findings of this study are expected to help trainers consider the personality of individuals before designing the training programs to be implemented. However, there are limitations to this study, as it focused solely on learning performance in measuring the effectiveness of training. Further research could be conducted to assess the influence of trainee personality factors on training effectiveness, such as return on investment (ROI), individual performance, and organizational performance.

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