

## **Extraversion, Emotional Intelligence, English Proficiency and Academic Performance among Mot Students: A Case Study at a Premier Malaysian Technical University**

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**Abstract:** The application of Outcome-Based Education (OBE) system is regarded as critical national agenda not only to increase graduates employability but to also improve the quality and competitiveness of Malaysian higher education system. Under the OBE system, student's performance is no longer measured in terms of their knowledge and psychomotor but inclusive of affective dimensions or soft skills such as communication skills and teamwork. The new system requires students to be socially apt which prompted this study. Specifically, this study attempted to examine the Effects of Extraversion (EX), Emotional Intelligence (EI) and English Proficiency (EP) on academic performance. Majority of present studies have been focusing on the effect of each variable while none has studied the effect all variables together on academic performance. This study employed an explanatory research design where emotional intelligence was assessed with the General Emotional Intelligence Scale by McShane and extraversion was measured using Goldberg researcher. English proficiency was measured using MUET entry result. Academic performance was derived from the participants actual CGPA at the present semester. A total of 88 second year Management of Technology (MoT) students participated in this study. Linear regressions were performed to examine the effects of extraversion and EI on academic performance. Contrary to previous studies, EI and EX did not significantly predict academic achievement while EP has significant weak effect on academic performance. This study highlights the gaps in understanding factors associated with student's academic performance especially in the light of current higher education system.

**Key words:** Extraversion, emotional intelligence, english proficiency, academic performance, MTUN

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### **INTRODUCTION**

Since 1950s, Malaysia education system has incorporated the Outcome-Based Education (OBE) system with the aim to improve student's employability (Kaliannan and Chandran, 2012). According to Spady, OBE is an education philosophy with fundamental principles that students can only benefit from any educational program when the instructional outcomes can be measured. OBE focuses on three domains of learning outcomes which are knowledge, psychomotor and affective (Mokhtar *et al.*, 2014). Under affective domains, there are constellations of soft skills (teamwork, entrepreneurship, lifelong learning, leadership, communication, critical thinking and ethics) aimed to be nurtured through the instructional design.

Measurement of affective domains is commonly translated into activities such as individual presentation, group project and field work which include interviews and

observation. Understandably, successful completion of these activities is very much dependent on the abilities of the students to socialize, interact and communicate well with their fellow course mates and the public. This eventually will affect their course grades or academic performance.

In addition, one of the most important aspects of university education is English proficiency. University students are expected to read, write, listen and speak well and inability to do so might disengage them from the learning process (Ghenghesh, 2015). This would also eventually lead to poor academic performance. Empirical studies on predictors of academic performance reveals myriad of predictors ranging from individual differences, parental and societal influence. Specifically, previous studies on predictors of academic performance have been focusing on cognitive abilities (Leeson *et al.*, 2008; Rohde and Thompson, 2007), social background (Perez *et al.*, 2014; Bowman and Howard, 1985), motivation

(Meece *et al.*, 2006; Zimmerman *et al.*, 1992), parental support (Jeynes, 2005; Dennis *et al.*, 2005; Bean *et al.*, 2003) and environmental factors (Noguera, 2003; Arbona and Nora, 2007). This indicate less emphasis on the roles of extraversion, emotional intelligence and English proficiency and their cumulative effects on academic performance. Thus, this study aimed to investigate the influence of extraversion, emotional intelligence and English proficiency on academic performance among MTUN undergraduate students.

### **Literature review**

**Extraversion and academic performance:** Eysenck (1967) claimed that introversion-extraversion, neuroticism stability and psychoticism as the core of personality. He specifically claimed that extraversion and neuroticism were theoretically and empirically associated with mental processing ability. According to Wilt and Revelle (2009), there are at least three basic characteristics of extraversion that make it important to study. First, extraversion has the potential to explain differences of a wide variety of behaviors which is one of the central concerns for the field of personality. Second, extraversion predicts effective functioning and well-being across a wide variety of domains including cognitive performance, social activities to social economic status. Third, extraversion predicts risk and also resilience for different forms of psychopathology.

Rolfhus and Ackerman (1999) suggested that the negative relationship between extraversion and performance might be attributed to the differences in knowledge-acquisition time between introverts (who spend more time studying) and extraverts (who spend more time socializing). Empirical evidence on the effect of extraversion on academic performance, however is mixed. For example, Poropat found extraversion predicted academic performance very weakly while Gallangher (1996) found the effect of extraversion on academic performance is mediated by coping strategies. Similarly, Feyter *et al.* (2012) surveyed 375 college students in Belgium and found conditional indirect effect of extraversion on performance. Ciorbea and Pasarica (2013) found weak significant relationship between extraversion with final project grade but insignificant relationship with overall grade. A few others, however, found no significant association between extraversion and academic performance (Geramian *et al.*, 2012).

As the current university curriculum requires students to be a good team player and interact more during the course of their studies, it is hypothesized that extraversion is positively related to academic performance.

**Emotional intelligence and academic performance:** The concept of emotional intelligence has its root in the concept of social intelligence which was introduced by (Thorndike, 1920). He defined social intelligence as the ability to understand and to relate to people, the ability to manage people and to act wisely in human relations. Gardner (1983) further elaborated on the roles of emotional intelligence in his model of multiple intelligence. Gardner believes that there are at least nine types of intelligence. Individuals have a distinguishable pattern of intelligence and their learning preferences will largely be influenced by their dominant intelligence preference.

Subsequently, seminal work by Bar-On to develop an experimental instrument to measure EQ in the early 1980s (2000) could be regarded as a turning point of EI popularity. According to Bar-On, EI is an array of emotional and social knowledge and the abilities to influence our overall activity to cope effectively with environmental demands. It has five major domains namely intra personal skills, adaptability, stress management and general mood stability. These domains are further operationalized into 15 factors including emotional awareness assertiveness, empathy, problem solving, stress tolerance, impulse control and optimism. The recent version of Bar-On Model of EI includes more factors such as self-regard, interpersonal relationship, reality testing and flexibility. He also identified five facilitators which are optimism, self-actualization, happiness, independence and social responsibilities. Bar-On's Model of EI aims to estimate both social and emotional competencies and thus it is classified as general health approach of EI. Such classification limits its applicability in workplaces.

Mayer and Salovey (1997) re-invented the concept of EI by focusing on specific mental aptitudes for recognizing and marshalling emotions while simultaneously perceiving and regulating them. Therefore, Salovey and Mayer's model of EI comprises four levels of abilities that are developmental in nature which are identifying emotions, using emotions to facilitate thought, understanding emotion and managing emotions. These levels indicate complexity of emotional skills that grow from the first level to the fourth level. On the other hand, Cooper and Sawaf identified four cornerstones of EI using personal growth approach which include emotional literacy, emotional fitness, emotional depth and emotional alchemy. Similar with previous model of EI, Cooper and Sawaf's model is developmental in nature.

However, Goleman's Model of EI differs as it is based on theory of performance (Goleman, 2001). EI is seen as comprising discrete set of abilities that integrate affective and cognitive skills. The earlier framework by Goleman

identified five dimensions of EI which are further broken down into twenty-five competencies. However, following a research done by Goleman (2001) the dimensions of EI were reduced to four dimensions and twenty competencies. These dimensions of EI are self-awareness, self-management, social awareness and relationship management.

These somewhat different conceptualizations of EI could be delineated to two broad categories of EI called trait EI and ability EI (Petrides *et al.*, 2004). Trait EI refers to a constellation of behavioral dispositions and self-perceptions concerning one's ability to recognize, process and utilize emotion-laden information. It encompasses various dispositions from the personality domain such as empathy, impulsivity and assertiveness as well as elements of social intelligence (Thorndike, 1920) and personal intelligence (Gardner, 1983). On the other hand, ability EI refers to one's actual ability to recognize, process and utilize emotion-laden information such as those of Goleman.

Emotional intelligence has been widely studied in the context of schools and the results have been consistent although the difference in research design; cross-sectional (Petrides *et al.*, 2004; Agnoli *et al.*, 2012; Khajepour, 2011) versus longitudinal study (Costa and Faria, 2015; Qualter *et al.*, 2012). Nonetheless, findings in the undergraduate population are inconsistent which make the body of literatures equivocal. Although, majority of them found positive significant relationship between emotional intelligence and academic performance (Parker *et al.*, 2004; Joshi *et al.*, 2012; Sanchez-Ruiz *et al.*, 2013), several found no relationship at all (Kashani *et al.*, 2012; Saklofske *et al.*, 2011).

Students who possess high emotional intelligence would be more adaptive to different learning environment. Managing group projects requires them to build and maintain strong, productive and healthy relationships, get along and work well with others in achieving positive results and effectively deal with pressures of daily life and academic load. Thus, it is hypothesized that EI is positively related with academic performance.

**English proficiency and academic performance:** Proficiency can be defined as "the ability of students to use the English language to make and communicate meaning in spoken and written contexts while completing their university studies" (Ghenghesh, 2015) claimed students who are proficient in English performed better in their degree area courses as they are able to participate better in classes. There are several studies on the effects of English language proficiency on the academic performance of students. Johnson (1988) conducted a

study among 196 international undergraduate students at University of Wisconsin-Green Bay using TOEFL results and CGPA. She concluded that the lower the language proficiency, the more important the roles it plays in academic success.

In addition, the results of a correlational study conducted by Aina *et al.* (2013) among Nigerian students majoring in science and technical education found competency in English significantly determines academic performance. In Malaysia, Al Haddad examined the English proficiency of accounting students and had similar finding as past research.

Since, English is the medium of interaction by majority of public universities in Malaysia, student's ability to master their courses is dependent on their proficiency level. Thus, it is hypothesized that English proficiency affects academic performance in terms of CGPA.

## MATERIALS AND METHODS

**Participation:** The survey was completed by 104 year two Management of Technology undergraduate students at Universiti Tun Hussien Onn Malaysia during the 2014/2015 academic session. The instruments were administered separately in classes and compiled at the end of the semester. The final return rate was 84.6% since only 88 respondents were retained due to incomplete data provided. The mean age of the respondents was 22 year old which indicates that mostly enroll the degree programme upon completion of their matriculation. Majority of respondents are female which aligned with the current statistics of student enrollment with the ratio of 7:3.

**Measures:** Measurement of extraversion was adapted from Goldberg consisting 10 questions with a 6-point scale while Emotional Intelligence was measured using McShane's adapted instrument. It consists of 16 items with six-point scale tapping four dimensions of EI which are self-awareness, self-management, awareness of others and managing other's emotions. These instruments have established validity and thus being adopted without any modification.

English Proficiency was measured using actual Malaysian University English Test (MUET) during program enrollment. The Academic performance was measured based on current CGPA of the participating students. Cronbach's alpha for the extraversion was 0.645 and 0.663 for emotional intelligence. Thus, both inventories were found to be within acceptable reliability range (Sekaran, 2004). Table 1 show the scoring range for

Table 1: Scoring key for extraversion

Score	Interpretation
High extraversion	35-40
Moderate extraversion	28-34
In between	21-27
Moderate introversion	7-20
High introversion	0-6

extraversion as suggested by Goldberg. Scores for emotional intelligence have range from 16-80 points. MUET has six levels with Band 1 indicates low proficiency while Band 6 indicates high proficiency. Both MUET and CGPA results were obtained from the student's academic systems.

### RESULTS AND DISCUSSION

The mean of extraversion was 18.37 which indicate majority of the students were moderate introversion. This implies that they mostly enjoy thinking, exploring their thoughts and feelings. Since, being introverts does not imply lack of social skills but rather a choice for not being overly social able, this result is not surprising as most university students are studious.

The emotional intelligence is within the upper 10th percentile at  $M = 70.36$  ( $SD = 6.13$ ) which mean that the students are emotionally intelligent in terms of managing their emotions and other people's emotions. In fact, managing others has the highest mean of 19.73 while self-awareness has the second high mean of 17.63. This result also consistent with the finding of the respondent being moderately introvert since introvert is usually internally-driven. This is further substantiated when there is a positive significant relationship between extraversion and emotional intelligence when correlation test was used ( $r = 0.313$ ,  $p < 0.001$ ). Average CGPA was 3.59 which were considered high owing to the facts that these year two students were still taking many general courses. In terms of MUET, 47.7% from 88 students had Band 2, followed by 40.9% had Band 3, 10.9% had Band 1 and only 1.1% had Band 4 (Table 2).

Multiple regression analysis was conducted to test if the extraversion, emotional intelligence and English proficiency significantly predicted student's CGPA. The results of the regression indicated all the three predictors did not significantly explained the variance in academic performance ( $R^2 = 0.068$ ,  $F(3, 88) = 2.034$ ,  $p > 0.05$ ). However, it was found that English proficiency significantly predicted academic performance albeit weakly ( $\beta = 0.258$ ,  $p < 0.05$ ).

Table 2: Mean and standard deviation

Variables	Mean	SD
Extraversion	18.37	4.19
Emotional intelligence	70.36	6.13
CGPA	3.59	0.29

### CONCLUSION

The findings of this study indicates that there is much more to learn about the inter relationships among these variables. Contrary to previous studies (Petrides *et al.*, 2004; Agnoli *et al.*, 2012; Gallagher, 1996), extraversion and emotional intelligence have no influence on academic performance. One of possible explanation is that emotional intelligence and extraversion have indirect effect rather than direct effect on academic performance. As argued by Saklofske *et al.* (2011), emotional intelligence might impact academic performance via stress and coping strategy. Similarly, extraversion might affect academic performance through different mechanism such as task complexity and types of activities.

This study also found that there is a significant positive relationship between emotional intelligence and extraversion which is consistent with a study conducted by Ghiabi and Besharat (2011). This indicates that extraversion and emotional intelligence has similar dynamics which need further scrutiny.

One of the most important finding in this study is the positive effect of English proficiency on academic performance. Not only this finding substantiate other studies such as Ghenghesh (2015) and Aina *et al.* (2013) but it highlights the importance of having high level of English proficiency among the student to succeed in the degree programs. Therefore, universities need to strategize on how to strengthen the student's mastery in the language once their join the degree programs. Current MUET entry level of Band 1 might not be sufficient for the students to embrace the learning process especially when not only the lectures are conducted in English but all learning activities ranging from books to presentation slides must be in English.

Since, this study involved small sample of students and cross sectional in nature, findings should not be regarded as conclusive but rather as an insight on how complex the interactions of these factors in influencing academic performance of students.

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