

Level of Ethical Behavior among Engineering Students: Polytechnic Malaysia

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ABSTRACT

Recently, the increasing number of social problems has put society in unease situation regardless they are committed by professionals or non-professionals. This is due to, among others, lack of good values to drive individuals in the right way. Thus, the article discusses level of ethical behaviour among engineering students at polytechnic in Malaysia. The article adopts quantitative approach by using survey technic. Data collection is conducted using set of questionnaire and then the collected data is analysed using SPSS 22.0 software. The interpretation of data is explained using descriptive statistic method. The value of alpha cronbach collected is $\alpha = 0.696$ and the article involved 391 students from 3 polytechnics in Malaysia. In total, level of ethical behaviour among engineering students in polytechnics of Malaysia is at moderate level with mean score = 2.41 and standard deviation = 1.23. However, collected data shows that 64% of students committed at least once unethical behaviour during their period of study. This article concludes with several recommendations to solve the issue.

Keywords: ethics, polytechnic malaysia, engineering students', behaviour.

1.0 INTRODUCTION

Nowadays, the polemic of social problems has brought great attention in mass media (Shazaitul Azreen & Maisarah, 2016). Several preventive measures to solve the problems have been advocated by several agencies to schools, ministries and higher administrative in Malaysia. As a result of series of discussions regarding that

matter, government often pin together human capital aspect in every newly introduced policy (Aishah, Junaida & Mahadir, 2012). One of the requirements to receive the status of developed country is number of skilled workers (11th Malaysia Plan). It is quite a challenge for Malaysia to achieve the status of developed country since the number of skilled worker is deteriorating. Malaysia is too dependent on unskilled workers and thus this situation contributes towards financial and economy crisis.

Norhayati, Ishak and Rahmah (2012) stressed that high unemployment rate and unstable labor market was the result of dependency for unskilled workers particularly from foreign countries. High demand from local companies in importing foreign workers was one of the factors of the said dependency (Siti Rahayu, Rahmah & Norlin, 2014). Thus, it is clear that lacking of local skilled workers specialisation in professional and technical contributed to economy slowdown. On top of that, most of imported foreign workers did not fulfil the necessary skills required by the industry and therefore did not solve the current problem.

A study conducted by Muhammad Hazrul (2012) indicated a few weaknesses shown by fresh graduates while stepping in their careers such as lack of critical thinking in analysing and solving problem. It is a well-known fact that fresh workers have no experience and no competency. Thus, industry needs to contribute a sum of money to train the new workers (Mustafa, 2010). Apart from that, additional skills such as ethics, moral and student's value are among of the aspects that need to be emphasised. Research by International Employer Barometer (IEB) (2008) showed that employer has tendency to stress on communication skill and good personal skills compared to academic achievement in employing new worker. This explains the importance of ethics to be instilled in students. *Pelan Induk Latihan dan Pembangunan Kemahiran Pekerjaan Malaysia (2008-2020)* views a similar proposition that students with high knowledge and good ethical behaviour will be produced.

The authors view that ethical aspect is the focal point in the article. This element is the crux to human capital development but in reality it is often being underestimated by several individuals. The authors strongly believe this element could give a big impact and henceforth produce competitive human capital. Mustapha Kamal, Zahiah and Abdullah (2010) stressed that a human being must have high quality of mind, physical and spiritual to create good human capital. The balance of all aspects must be emphasizing to produce good human capital. Further, many concepts of ethics has also being explained by Muslim scholars (Abdul Muqsith *et. al.*, 2016).

2.0 ETHICS AND LITERATURES

The term ethics is originated from Greek which is *ethos* and *ethikos*. *Ethos* means attitude, good character and good custom whereas *ethikos* means good attitude, act and manner (Abd Haris, 2007). Dewan Bahasa 4th Edition Dictionary defines ethics as set of moral principles or moral values (courtesy and others) manifested by individuals or group of people. Terminologically, ethics is the branch of knowledge that deals with moral principles of good and bad as well as truth and fallacy actions and human actions relating to duty of a human being.

There are views on precise definition of ethics and moral where Zaharah, Abu Daud and Nazri (2009) indicated that ethics is the ability of a human being to distinguish right and wrong based on mind consideration and consequently do the right action. However, Roziah, Zulkarnain and Nasruddin (2011) defined ethics differently of which it is a system of human action based on human thinking ability. On the other hand, Hamzah (1985) defined ethics as the branch of knowledge in investigating good and bad acts by observing mind action of a human being. Ethics is also consisting of moral principles of an individual or group of people (Ajmain, Aminuddin, Ahmad Marzuki & Idris, 2013). This is supported by other scholars who mention ethics as the discipline aspect acting as performance index and reference to control a system (Martin, 1994). Different context in every research has its own grounded theory. The authors use the theory of virtue ethics introduced by Aristotle in researching the aspect of ethics for the article. The proponent of the theory mentions that there are several elements to harmonise a society if good values such as honesty, justice, courage and modesty is maintained to ensure good stability of life (Strike and Moss, 2006). Figure 1 shown below explains these elements.

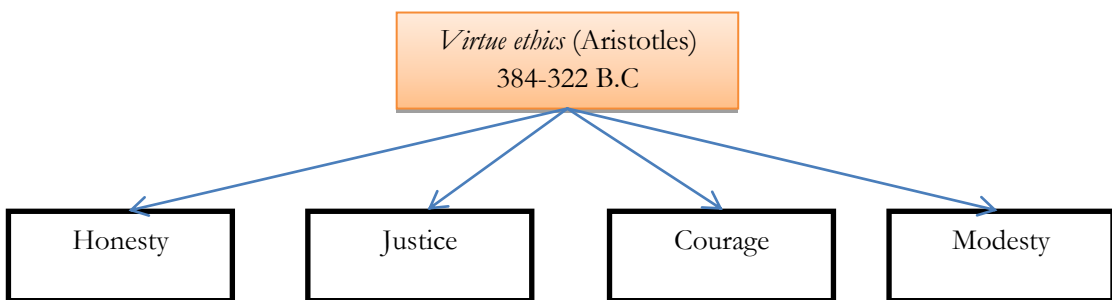


Figure 1: Elements in Virtue Ethics (Khalidah, Rohani and Mashitah, 2010; Abdul Muqsith *et. al*, 2016)

Eventhough the theory was introduced at long time ago, but it could answer the basic question of ethics where an action taken by an individual today will

determine what is in future. Good moral, motive and core values are the main factors for this situation (Weiss, 2006). Apart from that, this theory is in line with the Quran and the Sunnah (Khalidah, Rohani and Mashitah, 2010). Nevertheless, there are articles opted for moral values that are universally accepted such as; integrity, honesty, respectful, self-control and courage (Jennings, 2006).

Even though there are contradictions on definition of ethics by scholars, but the authors conclude that ethics is an act requires a human being to think and subsequently to act either good or bad based on the society's perspective.

The significance of research on ethics may also be referred in literatures by other researchers. The statement made by Weisul and Merrit (2002) where today's student may be a criminal in future must be put in highest consideration of all respective stakeholders. This statement demonstrates clearly that ethics is the main element in today's education system. This significance must be forwarded since ethical behaviour of students may impact the future of Malaysia (Aishah, Junaida & Mahadir, 2012).

International report records 70% of students at higher education institutions in Romania practiced unethical behaviour (Iorga, Ciuhodaru, Romedea, 2013). On top of that, evidences show that this situation is worsening day to day (Simkin and McLeod, 2010). This is supported by Lin and Wen (2007) that reported, 61.72% of students had committed academic mischief at least once during their studies for example late coming, assisting to cheat and others. On the other hand, Jumoke (2014) mentioned 80% of engineering students did at least one academic wrongdoing throughout their studies.

In Malaysia, a research by Khalidah, Rohani and Mashitah (2010) showed that level of unethical behaviour of students in Private Higher Education Institutions is higher than Public Higher Education Institutions. Similar result is shown by Abdul Muqsith *et al.*, (2016) that reported on students of Mushaf Art at Restu College recorded 62.94% of unethical behaviour. Not to mention that these students did at least once unethical behaviour during their studies. This finding is different with Shazaitul Azreen and Maisarah (2016) which reported that students in Public Higher Education Institutions have variable ethical values. However, the study found that engineering students recorded low level of awareness than science stream students and social science students.

On the other hands, a study in Public University at Malaysia conducted by Shahrulanuar *et. al.*, (2011) indicated a few restrictions must be overcome to instil ethical aspect, which are lack of reference books; no clear guideline in ascertaining moral values; less facility and non-developing environment. The importance of ethical aspect is stressed by Cheng Ooi and Michelle (2014) where a workshop on

ethical aspect needs to be conducted. This will contribute to positive impact for students in preparing themselves as an ethical human being. Balakrishnan, Er and Visvanathan (2013) mentioned a similar result that education and socio-ethical issues have strong influence on knowledge, skill and attitude for nanotechnology engineering students.

Other than education sector, public sector is also stressing on ethical aspect in employment. Roslan and Nik Rosnah (2008) indicated that public workers have low awareness and low impression against ethics, moral and integrity. This finding shows the compulsory requirement of ethics for every profession in a working or learning environment and employment process. This is supported by Lawson (2004) that mentioned that there were strong relationship between unethical behaviour during studies and unethical behaviour at work. Therefore, some components have been identified as basis of ethical aspect which are respect between students; safety and health; student's privacy; failure to provide beneficial materials to students and consideration for grading good marks to students; trust and respect; tolerance and openness; appearance; personal use of institution belongings; and avoiding inappropriate jokes (Mohsen and Farzin, 2014).

3.0 PROBLEM STATEMENT

Literatures indicate that there is no research on ethical aspect conducted in any polytechnic in Malaysia. The gap must be filled in to compare the finding of this article with findings of other research. Roncin (2013) stressed that ethics is not only teaching attitude, more than that it educates solving problem technique by minimising adverse effect against nature, society and prioritise public safety. Literatures also indicate the need to instil ethical aspect for every offered course. An either local or international literature shows that ethics must be the focal point in shaping competent and good attitude student. Thus, the article focuses on the issue of students against ethical aspect at polytechnic in Malaysia.

4.0 RESEARCH QUESTION

This main question in this article is to analyse the level of ethical behaviour among students at polytechnic in Malaysia.

5.0 METHODOLOGY

This article adopts descriptive strategy by using survey method. Best and Khan (1998) mentioned survey method would be able to explain and describe a

phenomenon or situation. Respondents involved in the article are students from three selected polytechnics. The instrument used in the article is questionnaire adopted from Abdul Muqsith *et. al.*, 2016; Ludlum, Moskalionov, & Ramachandran, 2013; Deshpande, Joseph and Maximov 2006; Bennet & Robinson, 2000; Grover, 1990. Sampling method used in the article is convenience sampling. This is the appropriate method for the article as it is viable and convenient to receive responses from the respondents. In addition, this method is selected due to the standard population from polytechnics in Malaysia. Thus, a total of 391 students from three polytechnics in Malaysia are involved in the article. Then, the data are analysed using Statistical Packages for the Social Sciences (SPSS) version 22.0. The data is analysed applying descriptive statistic. This is supported by Uma Sekaran (2000) that states the purpose of descriptive statistic is to explain a phenomenon. In the article, the authors refer to mean percentage and standard deviation to identify and illustrate group of students. The level of agreement from respondents is put into consideration in responding the research question. The article refers to mean from Wiesrsma (2000) as in Table 1:

Table 1: Mean Table

Group Code	Average	Level
1	1.00 - 2.33	Low
2	2.34 – 3.67	Intermediate
3	3.68 – 5.00	High

[Source: Adaptation from Wiersma (2000)]

Reliability means the degree of stability and consistency against measurement of measuring tool must be stable, consistent and accurate (Kerlinger, 1986). Hair, Babin, Money and Samouel (2003) mentioned the interpretation of alpha cronbach value may be evaluated by classification in Table 2. The validity of questionnaire had been tested by several identified experts who are content experts and linguistic experts. Reliability test had been conducted against questionnaire before circulated to the respondents. In the article, value of alpha cronbach resulted is $\alpha = 0.696$. Nunally and Bernstein (1994) indicate that the reliability value more than 0.6 is accepted.

Table 2: Interpretation of Alpha Cronbach

Range of Alpha Cronbach	
< 0.6	Weak
0.6 to < 0.7	Intermediate
< 0.7 to < 0.8	Good
< 0.8 to < 0.9	Very Good
0.9	Excellent

6.0 FINDING

Demography analysis

Table 3: Respondent Demography Analysis

Item	Frequency	Percentage (%)
<u>Gender</u>		
Male	232	59.3
Female	159	40.7
TOTAL	391	100.0
<u>Age</u>		
20 years and below	269	68.8
21-25	122	31.2
26-30	-	-
TOTAL	391	100.0
<u>Course</u>		
Civil	120	30.7
Electrical	126	32.2
Mechanical	145	37.1
TOTAL	391	100.0

Based on Table 3, the number of male respondents are more than female respondents. The finding indicates that respondents from male student in the selected polytechnics are 232 while female student are 159. This shows the imbalance of gender because number of male students are more than female students with disparity of 18.6%. With regards to age, the article indicates majority of respondents are 20 years and below which equal to 68.8%. Whereas number of respondents aged 21 to 25 years are 122 which represent 31.2%. On the other hand, respondents of civil course are 120, electrical are 126 and mechanical are 145.

Table 4: Ethics Problem

No	Item	Never	Once	Sometimes	Occasionally	Frequently	Mean (M)	Standard Deviation (SD)
1	Use of facilities for personal use	41.4 %	8.2 %	16.9 %	17.1 %	16.4 %	2.58	1.55
2	Falsify sick leave (MC)	53.7 %	19.9 %	24.3 %	2.0 %	0.0 %	1.75	0.89
3	Surfing social media in lecture	6.1 %	7.9 %	17.6 %	18.4 %	49.6 %	4.05	1.96
4	Cheating in examination	46.5 %	25.8 %	20.2 %	2.8 %	4.6 %	1.93	1.09
5	Late coming for class	36.3 %	5.6 %	22.3 %	21.7 %	14.1 %	2.71	1.49
6	No cooperation for group assignment	45.3 %	29.9 %	18.4 %	1.8 %	4.6 %	1.91	1.06

7	Excessive break time	28.9 %	26.3 %	23.8 %	16.6 %	4.3 %	2.41	1.19
8	Late submission of assignment	40.7 %	23.0 %	25.6 %	7.9 %	2.8 %	2.09	1.11
9	Sleeping in lecture	47.3 %	31.7 %	15.9 %	4.9 %	0.3 %	1.79	0.90
10	Compliment for good grade	55.5 %	24.3 %	15.3 %	3.8 %	1.0 %	1.71	0.93
11	Ignore missed lecture	26.3%	32.5 %	24.8 %	11.0 %	5.4 %	2.37	1.14
12	Eating in lecture	39.9 %	31.2 %	21.5 %	7.2 %	0.3 %	1.97	0.96
13	Ignore unethical behaviour	5.4 %	11.3 %	29.2 %	21.7 %	32.5 %	3.64	1.20
14	Answering call in lecture	33.2 %	11.3 %	22.8 %	21.0 %	11.8 %	2.67	1.42
15	Making noise in lecture	14.1 %	24.8 %	19.2 %	30.9 %	11.0 %	3.00	1.25
16	No greeting for lecturer	37.3 %	8.2 %	28.6 %	14.1 %	11.8 %	2.55	1.41
17	Blaming others	44.8 %	17.1 %	29.4 %	8.4 %	0.3 %	2.02	1.05
18	Mocking friend in lecture	43.5 %	10.5 %	23.8 %	11.3 %	11.0 %	2.36	1.41
19	Praise own self	44.2 %	13.0 %	24.8 %	8.7 %	9.2 %	2.26	1.34
20	Gossiping in lecture	39.1 %	7.9 %	34.8 %	15.3 %	2.8 %	2.35	1.22
Average		36%	17 %	23 %	12 %	10 %	2.41	1.23

The data then analysed and interpreted as in Table 4. According to the data collection, the result shows that level of ethical behaviour among engineering students at polytechnics in Malaysia is at intermediate level with mean score = 2.41 and standard deviation = 1.23. Nevertheless, unethical behaviour is frequently committed in the polytechnics. Referring to the mean score, Item 3 which is “surfing social media in lecture” recorded the highest mean score (M) which is 4.05 with its standard deviation (SD) 1.96. The lowest score recorded from Item 10 which is “compliment for good grade” with mean score of 1.71 and standard deviation 0.93.

In addition, some items showed at the intermediate levels which are item *use of facilities for personal use* ($M=2.58, SD=1.55$); item *late coming for class* ($M=2.71, SD=1.49$); item *excessive break time* ($M=2.41, SD=1.19$); item *ignored missed lecture* ($M=2.37, SD=1.14$); item *ignore unethical behaviour* ($M=3.64, SD=1.20$); item *answering phone in lecture* ($M=2.67, SD=1.42$); item *making noise in lecture* ($M=3.00, SD=1.25$); item *no greeting for lecturer* ($M=2.55, SD=1.41$); item *mocking friend in lecture* ($M=2.36, SD=1.41$) and item *gossiping in lecture* ($M=2.35, SD=1.22$). Meanwhile, others item are within low ranges which are item *falsify sick leave (MC)* ($M=1.75, SD=0.89$), item *cheating in examination* ($M=1.93, SD=1.09$), item *no cooperation for group assignment* ($M=1.91, SD=1.06$), item *late submission of assignment* ($M=2.09, SD=1.11$), item *sleeping in lecture* ($M=1.79, SD=0.90$), item *compliment for*

good grade ($M=1.71$, $SD=0.93$), *item eating in lecture* ($M=1.97$, $SD=0.96$), *item blaming others* ($M=2.02$, $SD=1.05$) and *item praise own self* ($M=2.26$, $SD=1.34$).

Percentage frequency analysis of ethical problems are low. Most of respondents made "never" statements with a total percentage value of 36 percent. Next, the "once" statement recorded 17 percent while "sometimes" showed a total percentage value of 23 percent. For "occasionally" statements, 12 percent were recorded while 10 percent were recorded for "frequently" statements. However, the frequency analysis shows the percentage of students had committed unethical behaviour is very high which recorded at 64%. This is calculated based on scale once, sometimes, occasionally and frequently. Thus, the finding indicates engineering students at polytechnics in Malaysia has tendency of committing unethical behaviour at least once during their studies. This figure is high and it shows that this ethical problem exists in education system.

7.0 DISCUSSION AND CONCLUSION

Based on the finding, the item which scored highest mean is involving use of gadget and technology in the class. This is supported by Mtega, Bernand, Msungu and Sanare (2012) that reported 51.3% of students use smartphone during lecture for non-beneficial purpose. However, Lavin, Konte and Davies (2011) argued that the use of technology may benefit students in term of quality note taking, class participation, and quality learning. This is supported by the study of Kibona and Rugina (2015); Bosch (2009) where the finding stated that the use of smartphones as an effective medium in the teaching and learning process. Nowadays, addicted to social media using smart phones are becoming more common (Mustaffa & Ibrahim, 2014; Nalwa & Anand, 2003). It can be accessed regardless of time or place. As such, it can make the students lose focus on the class and complicate the student's development. A study conducted by Wan Norina, Zaharah, Ahmad Fkrudin and Ahmad Arifin (2013) stated that the influence of social media has a strong impact on student's development. In addition, finding shows entertainment, horror, porn and neglect matters contained in the mass and social media has made students lose focus and their main purpose of learning. Therefore, social media should be used in a way that is useful to the student's self-development.

In respect of the lowest score, the item *compliment for good grade* indicates that it is not a normal practice. Martin (2009) mentioned that students did not compliment outright to avoid misunderstanding or critics from teacher and friend. As for other items, they are at intermediate and low levels. One of the items in intermediate levels is *late coming for class*. The argument by Sofwan, Syahfitri and Mohd Nadzmi (2010) stated that attentive attitudes in punctuality are the main reason students often come late to class. Another common reason is to wake up late, rain, sleep

late and others which problem which is related to transportation problems. This view corresponds to the study conducted by Mariya (2013) where the findings reported that 43% of students in the United States and 20% in Ukraine are involved with truancy. Another opinion also states that the presence of students to institution is low because they are exposed to inappropriate behaviour influenced by the people around them (Thompson, 2010).

In conclusion, level of engineering students in Polytechnics in committing unethical behaviour is high based on the percentage obtained at 64 percent of students claiming to be involved at least once in unethical behaviour throughout their studies. The concern is the ethical problems continue to occur in working environment. Past studies have significant relationship between poor behaviours during learning with unethical behaviours while working (Nonis and Swifh, 2001; Lawson 2004). This shows that the tendency to cheat at work is closely related to the unethical practices when in institution. It is vital to curb the issue as it may damage social system. Therefore, effective action must be planned to solve this issue. Students of today are the leader in future. These are the suggestions proposed for other researcher in future to complement the finding of the article: (1) Development of ethics teaching and learning model of activity-based; (2) analyse ethics and *akhlak* domains; (3) providing conducive facilities; (4) further research in other institution (longitudinal).

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