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The effect of ethics courses on the ethical judgement-making ability of Malaysian accounting students

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Abstract

Purpose – The paper aims to evaluate the effectiveness of ethics courses provided to Malaysian accounting students and their impact on ethical judgement-making ability.

Design/methodology/approach – Third-year accounting students from six Malaysian universities participated in a pre- and post-ethics course study. The sample consisted of four universities which provide an ethics course (experiment group) and two universities which do not provide an ethics course (control group). Rest's Defining Issues Test instrument was employed and the *p-score* was calculated. Univariate tests were used to compare levels of ethical judgement-making ability.

Findings – Students who attended an ethics course improved significantly in their ethical judgement-making ability compared to students who did not attend the course. Male students, non-Muslim students and students in private universities benefit more from attending an ethics course compared to their female and Muslim students and those students in public universities.

Research limitations/implications – The findings indicate that providing ethics courses reshapes the ethical thinking of future accountants and thus are likely to improve the local ethical climate amongst professionals in the field. Results indicate significant improvements in cognitive moral development, although many students continue to apply conventional (Stage 4) reasoning skills when dealing with issues. The research provides a positive signal to the accounting faculties indicating that their effort in inculcating ethical values is worthwhile and this endeavour has to continue.

Originality/value – This study involves a controlled field study of a unique group of Malaysian accounting students and applies Kohlberg's theory of moral development to demonstrate the effect of an ethics intervention. Particular attention was given to examining conventional (Stage 4) judgment-making processes and how this appears to be influenced by religious affiliation and university type. This adds value to the ethics literature as there are only a few studies examining the merits of Stage 4 reasoning. Most importantly, it helps to fill a gap in the literature by providing both cross-sectional and longitudinal data from multiple samples of ethics classes, using both experiment and control groups.

Keywords Universities, Students, Accounting, Ethics, Malaysia

Paper type Research paper

1. Introduction

Accounting is a well-established yet growing profession in Malaysia. Emerging ethical controversies in the business and accounting profession highlights the importance of continuous monitoring and updating of ethical guidelines and sound regulations to suit current needs. The Malaysian Institute of Accountants (MIA), the governing body for the accounting profession in Malaysia, recently revised its By-laws



(On Professional Ethics, Conduct and Practice) to be consistent with global standards. The MIA Ethics Committee believes that the revised code of ethics is relevant and vital to enhance the moral values, attitudes and conduct of accountants in Malaysia. This implies that not only should existing accountants possess these traits but future generations of accountants should also be appropriately prepared for employment. In order to achieve the profession's aspirations, the MIA works closely with the Ministry of Higher Education Malaysia to assure that the accounting programmes are able "to educate, build expertise and shape good character in line with the needs of the nation and the accountancy profession" (Ministry of Higher Education Malaysia, 2005). Hence, the team comprising academics and MIA produced two reports – the first assessment report was in 2001 (also known as *Halatuju 1*) on accounting programmes at public universities in Malaysia and a reassessment report (*Halatuju 2*) was issued in 2006. In the area of ethics education, *Halatuju 1* recommended that Business Ethics be included as a core subject to be taught at the public universities. *Halatuju 2*, however, approached the issue differently. It recommended that ethics be embedded in all courses taught in accounting programmes and also that a subject in Business Ethics and Corporate Governance is necessary in the accounting programmes of public universities. For ethics education, the recommendations are based on the International Federation of Accountants Approaches to the Development and Maintenance of Professional Values, Ethics and Attitudes in Accounting Education Programmes.

Concerned with the moral values of future Malaysian generations, the authors of this study set about to examine the level of ethical judgement-making ability of accounting students enrolled at public and private universities. In particular, this study seeks to answer the following questions:

- Do ethics courses improve levels of ethical judgement-making ability?
- Which student groups benefit from undertaking an ethics course?

Although studies in ethical development among accounting students are voluminous, there is little evidence relating to the ethicality of future accountants in the Malaysian setting particularly in employing the Defining Issues Test (DIT) developed by Rest (1986) as the research instrument. Literature referring to the ethical judgement-making ability of Malaysian accounting students is scarce, especially in identifying the effectiveness of ethics courses provided by Malaysian universities. Thus, this study is significant for two reasons. First, the findings will be an indicator on the effectiveness of ethics courses provided by Malaysian universities to accounting students. This may encourage faculties to revisit their ethics syllabus and seek improvements in order to better achieve the objectives of the course. Second, the results will contribute to the limited literature in the area of ethics in a Malaysian setting. This paper will investigate the level of ethical judgement-making ability of Malaysian's future accountants after exposure to an ethics course. Most importantly, this study will be conducted at a macro level involving four universities while other studies, for example LaGrone *et al.* (1996), Dellaportas (2006) and Abdolmohammadi and Reeves (2000), involved smaller sampling plans.

The remainder of the paper is structured as follows. First, an overview of the theoretical framework is presented, followed by a review of studies involving the development of ethical judgement-making ability of students. The research methodology used in this study is then outlined. The results of the inquiry are presented and the paper concludes by discussing the implications and directions for future research.

2. Literature review

This study is heavily influenced by the research of Kohlberg (1976) and Rest (1986), who have contributed significantly to the field of ethical judgement processes from a behavioural perspective. Kohlberg’s theory asserts that individuals go through a cognitive process in moral decision making and the judgements they make are based on the level of moral development they have attained. Kohlberg’s theory presents three levels with each level subdivided into two stages as summarised in Table I.

Rest (1986) took Kohlberg’s cognitive development model into account in developing a comprehensive four-component model for moral behaviour, which he described as the combination of four inner processes:

- (1) *Moral sensitivity*. Identifying the morality of a situation or event, role taking; interpreting the intensity of issues and being aware that there is a moral problem when it exists.
- (2) *Moral judgement making ability*. Deciding which action would be most justifiable in a given situation.
- (3) *Moral motivation*. The degree of commitment or motivation to taking the moral course of action, valuing moral values over other values and taking personal responsibility for moral outcomes.
- (4) *Moral character*. Ego strength, persisting in a moral task, having courage, overcoming fatigue and temptations, and implementing subroutines that serve a moral goal.

Both Kohlberg and Rest emphasize the role of education in assisting individuals to progress from one cognitive stage to another. This study will assess the advancement of ethical judgement through ethics course intervention as well as issues that may influence the progress, namely gender, age, religious affiliation, type of university and academic performance.

Most field studies that attempt to investigate the level of ethical judgement of students are cross-sectional in nature (Smith and Roger, 2000; Armstrong, 1993;

Level	Stage	Description
Pre-conventional	1	Individual obeys the rules to avoid punishment
	2	Individual behaves morally to gain personal rewards from others or makes choices amongst alternatives that will benefit the individual
Conventional	3	Individual is concerned with maintaining good interpersonal relationships
	4	From this relationship, comes a sense of fairness where there is mutual loyalty and dedication where the individual develops an ability to adhere to legal and moral codes of conduct
Post-conventional	5	The right behaviour is a combination of individuals’ rights and principles agreed upon by society
	6	The right behaviour means acting according to an individual’s own ethical principles; in other words, unwritten global deontological ethical principles of justice, duties and equal human rights are followed at this stage

Table I.
Kohlberg’s stages
of moral development

Sources: Kohlberg (1984); Venezia (2004)

Chan and Leung, 2006; Cohen *et al.*, 1998; Bean and D'Aquila, 2003; David, 2004; Delaney, 2005; Dellaportas, 2004, 2006; Earley and Kelly, 2004; Keller *et al.*, 2007; LaGrone *et al.*, 1996; Lowry, 2003; Shaub, 1994). They investigated the effectiveness of ethics intervention programmes by comparing students or graduates with and without an ethics education (Gautschi and Jones, 1998). Various extraneous issues impact the validity of cross-sectional studies, and for this reason, longitudinal studies have also been conducted using pre- and post-tests on the effects of ethics education on individual's ethical development. However, results from these longitudinal studies have been mixed. Despite efforts in integrating ethics into the curriculum with a standalone ethics course, some studies demonstrate that courses do not have an impact on ethical reasoning and are not significant in influencing ethical development (Borkowski and Ugras, 1992; Earley and Kelly, 2004; Ponemon, 1993; St. Pierre *et al.*, 1990; Venezia, 2004). There is little in these studies, however, to suggest why this may be the case.

Research has also examined the effect of an ethics intervention attended by accounting students using the DIT[1] at the beginning and end of the ethics course. LaGrone *et al.* (1996), Armstrong *et al.* (2003), Abdolmohammadi and Reeves (2000) and Dellaportas (2006) found that an ethics intervention was able to improve the level of ethical judgement by the increment of means of *p-scores* (Table II). *p-Scores* are index designed to measure the extent to which an individual applies post-conventional reasoning. In other words, students will achieve higher *p-scores* if they choose Stages 5 and 6 reasoning in a given situation.

Thus, based on Kohlberg's cognitive development model, Rest's four processes and the findings (Armstrong *et al.*, 2003; Abdolmohammadi and Reeves, 2000; Dellaportas, 2006) of past studies, the following hypothesis is proposed:

- H1. Students completing an ethics course will demonstrate significantly greater improvements in ethical judgment-making ability compared to those who do not complete a course.

Abdolmohammadi and Reeves (2000) asserted that the effect size of an ethics course can be determined by dividing the average mean difference of the pre- and post-*p-score* by the standard deviation of the pre-test *p-score*. Abdolmohammadi and Reeves (2000) considered the effect size of 0.00-0.33 to be low, moderate with 0.34-0.66 and high effect when the size is 0.67-1.00. Their study found that an ethics course produces a moderate effect on students' level of ethical judgement (Abdolmohammadi and Reeves, 2000). This paper will add to the existing evidence on the pre- and post-measurement

Authors	<i>n</i>	Pre- <i>p-scores</i>	Post- <i>p-scores</i>
LaGrone et al. (1996)	48	27.5	34.9*
Armstrong <i>et al.</i> (2003)	21	49.5	57.3**
Abdolmohammadi and Reeves (2000)	113	36.5	41.0*
Dellaportas (2006)	26	26.4	38.6*
Shawver (2006)	27	31.2	32.2

Notes: Improvement in post *p-scores* are significant at: * $p < 0.05$; improvement in post *p-scores* of experiment group is significantly (at ** $p < 0.05$) higher than the control group

Table II. Comparison of *p-scores* in studies on pre- and post-ethics course among accounting students

of ethical judgement with ethics education intervention and shed new light on this issue from a Malaysian perspective.

The effect of gender on students' ethical development has shown mixed results; some found that gender has no effect (Al-Ansari, 2002; Dellaportas, 2006; Gautschi and Jones, 1998; Lowry, 2003), or is situational (Borkowski and Ugras, 1992), while some report that females have better reasoning ability than the males (Eynon *et al.*, 1997; Venezia, 2004; Woodbine, 2006). There is little evidence to suggest that males have higher level of ethical reasoning abilities than females (Abdolmohammadi and Reeves, 2000; Ameen *et al.*, 1996). Therefore, this study hypothesizes that:

- H2.* Female students completing an ethics course will demonstrate higher improvements in judgment-making ability compared to their male counterparts.

The influence of religious affiliation is also widely discussed in ethical development papers and again the outcomes are inconsistent. Studies found that religious affiliation has either no impact on the cognitive moral development of students (Kennedy and Lawton, 1996), a negative relationship to development (Burks, 2006), positive relationship (Conroy and Emerson, 2004; Woodbine and Chou, 2003) through to mixed results (Albaum and Peterson, 2006; Smith and Oakley, 1997). With these findings, the following hypothesis is put forward:

- H3.* There will be no significant variation in ethical judgement-making ability between Muslim and non-Muslim students as a result of their completing an ethics course.

Researchers have also suggested that the type of academic institution might influence students' ethical attitude (Armstrong, 1993; Ponemon and Glazer, 1990). A recent study by Zopiatis and Krambia-Kapardis (2008) shows that private university students exhibit less tolerance to ethical issues compared to public university students in Cyprus. Thus, the fourth hypothesis is as follows:

- H4.* There will be no significant variation in ethical judgement-making ability between public and private university students as a result of their completing an ethics course.

3. Methodology

This study was conducted during 2008 and involved an experiment group of third-year accounting students from four Malaysian universities (two public and two private). Each provides ethics courses, and students completed survey instruments during the first and last week of the semester. Another group of students from two public universities, which do not offer a subject in ethics, were also included in the pre- and post-study and were labelled the control group.

A total of 355 students answered the DIT in the pre-test stage, with 272 responding to the post-test. In assessing ethical judgement-making ability, the short version was used, consisting of three cases highlighting some sort of ethical dilemma. Each case was followed by 12 questions or items representing stages of moral reasoning (see Appendix for example of a case). Students were asked to rate each question based on its importance in deriving an action for each dilemma on a five-point scale (great, much, some, little and no importance). Also included were A- and M-type statements, which Rest (1990) refers

to as a reliability check. In other words, there are statements which are not relevant to measuring moral reasoning but are included as a method to detect if the questions have been properly understood by respondents and may lead to respondents being eliminated from the data analysis. For example, in Case 1 (Appendix), the statement in Task 2 asks “Whether Zahir is a professional wrestler, or has considerable influence with the professional wrestlers?” and clearly has no relevance to the consideration of moral decision making. After rating each item in the cases, students then rank the four most important statements. The rankings should be consistent with the ratings selected earlier with this comparison referred to as a “consistency check” (Rest, 1990).

The *p-score* is calculated manually, strictly adhering to the protocols in the DIT Manual. The *p-score* reflects “the relative importance participants give to principled moral considerations (Stages 5 and 6) in making moral decision” (Rest *et al.*, 1997, p. 498). Minor modifications are made to the three cases to suit the Malaysian context; for example, the names of the characters have been changed to make them sound local. Out of the 272 completing pre- and post-tests, 220 in the experiment group and 39 in the control group passed the reliability and consistency checks. Descriptive and univariate methods of analysis were applied to the data.

Female students dominate the sample of this study (75 per cent), which is a reflection of the ratio of male and female students in Malaysian universities, especially in the social science courses. As Islam is the dominant religion in Malaysia, Muslim students also dominate the sample (72 per cent); thus, the respondents are divided into Muslims and non-Muslims (instead of individual religions). Non-Muslims consist of students embracing religions such as Christianity, Buddhism, Hinduism, Taoism and Sikhism. The ratio of public and private is also appropriate in representing the population of Malaysian universities.

4. Results

4.1 Overall, level of ethical judgement-making ability

Using paired sample *t*-tests, results in Table III show that there is an improvement in the level of ethical judgement-making ability among students. The overall mean difference is significant at the $p < 0.05$ level for the experiment group while the control group shows no significant improvement. Thus, *H1* is supported. Although significant improvements were noted, recorded *p-scores* are relatively low compared to those reported in western studies (Rest, 1990) reflecting a strong preference for the use of Stage 4 (conventional level) reasoning. The recorded effect size of 0.13 is also relatively low (Abdolmohammadi and Reeves, 2000).

	<i>n</i>	Mean <i>p-score</i>	<i>t</i>	<i>p</i>
<i>Experiment group</i>				
Pre-ethics course	220	25.09	1.832	0.034 *
Post-ethics course		27.36		
<i>Control group</i>				
First stage	39	26.07	1.285	0.104
Second stage		29.57		

Note: Significant at: *0.05 level (one-tailed test)

Table III.
Overall mean of *p-scores* in pre- and post-ethics course

When comparing the breakdown of the *p-scores* (possible range of scores 0-95), it appears that students who attended an ethics course improved in the post-phase with respect to principled items (Figure 1). The number of students scoring 0 decreased and this contributes to the decreased scoring between 0 and 30. Students who scored 30-50 decreased slightly in the post-phase while students who scored 50 and more increased. This appears to be a further indication of the effectiveness of an ethics course intervention. The findings also show that the minimum and maximum score in the pre- and post-tests did not change.

Conversely, students who had no ethics intervention had little movement in their low (*p-score* = 0) and high (≥ 50) scores (Figure 2). The scores between 30 and 50 declined. Figures 1 and 2 highlight that students who attended an ethics course attained better *p-scores* compared to their counterparts in the control group.

4.2 Distributions of stages scores

According to Rest *et al.* (1997), education can affect moral development whereby an individual applies higher stages of reasoning ability and is less accepting of lower stage evaluations. This is because “development is a matter of shifting distributions of stages rather than the move from one stage completely into next” (Rest *et al.*, 1997, p. 499). The extent to which Stages 2-4 were applied are presented in Table IV to see whether appropriate “shifting” occurs. Table IV shows that in general, the scores in Stages 2 and 3 in the post-ethics course test (of experiment group) decreased, while the score in Stage 4 increased. Note also that the scores of Stage 4 in the pre- and post-tests are relatively high, indicating that most students in this study are most comfortable applying conventional level reasoning, although *p-scores* increased significantly for those completing the ethics course. This profile also explains why *p-scores* and effect size changes remain relatively low.

4.2.1 Level of ethical judgement-making ability by universities. The following analysis refers specifically to students completing the ethics course. When examining the pre- and

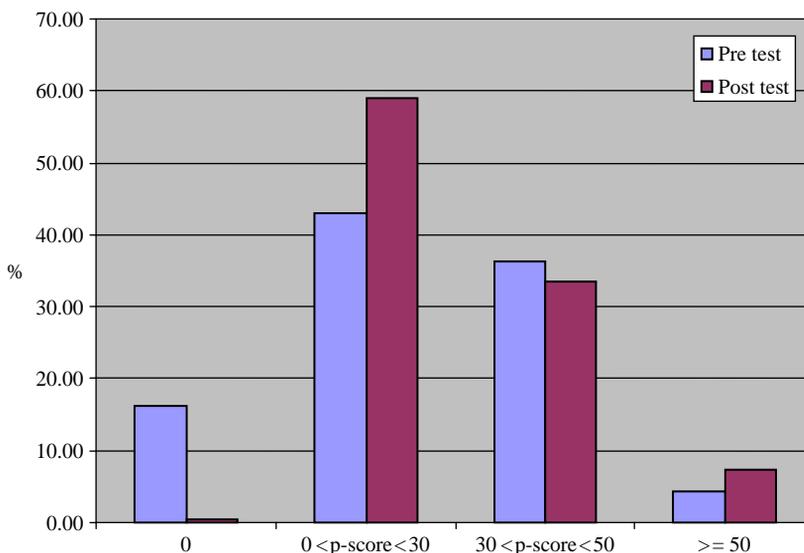
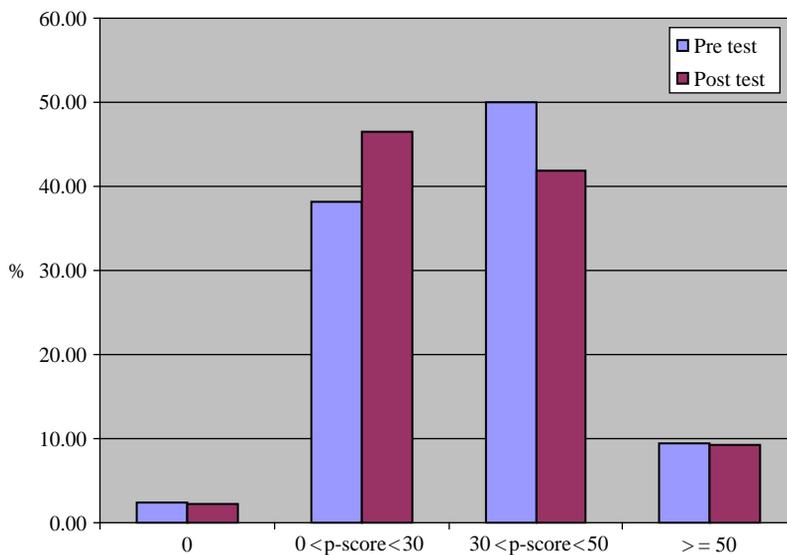


Figure 1.
Distribution of *p-score*
in the pre- and
post-ethics course for
experiment group



The effect of ethics courses

99

Figure 2. Distribution of *p*-score in the pre- and post-ethics course for control group

	Pre	Post	Mean diff.	SD	<i>t</i>	Sig.
Stage 2: pre-conventional	5.97	5.74	0.23	8.78	0.37	0.708
Stage 3: conventional	19.62	19.22	0.39	15.62	0.36	0.719
Stage 4: conventional	33.94	35.03	-1.09	18.49	-0.84	0.404

Table IV. Overall means of scores in Stages 2-4 in pre- and post-ethics course of experiment group

post-results for individual universities, it was found that the level of ethical judgement-making ability in one university slightly decreases (Public A), two universities (Public B and Private D) show little improvement while one university (Private C) improved considerably, and the increment is significant at $p < 0.05$ level (Table V). The scores for the different stages of reasoning show that Public B students “shifted” from the pre-conventional level to the conventional level (particularly in Stage 4). Private D students “moved” slightly from pre-conventional and conventional levels to the post-conventional level. The “shifts” in Public A and Private C, however, are not clear.

Public B is a large established university, with 13 branch campuses throughout Malaysia. Responses were collected from three of its branches and results of their *p*-scores are shown in Table VI. Although the branches use a standard syllabus, each is taught by lecturers from various backgrounds. Wilcoxon signed rank test is used to compare the pre- and post-test *p*-scores for Branches 2 and 3 as the number of students in each branch is small. Results show that Branches 1 and 2 showed little improvements in their *p*-scores while the *p*-scores in Branch 3 dropped. To further observe the “shifting” from lower (Stages 2 and 3) to higher (Stage 4-6) levels of moral development, changes in scores were calculated as illustrated in Table VI. Students in Branch 1 improved from the pre-conventional level (Stage 2) to higher conventional level (mainly in Stage 4), but improved very little in their use of post-conventional reasoning (*p*-scores). However, a large leap in the use of Stage 4 (conventional) reasoning is reported. Students in

Table V.
Means of *p-scores*, Stages
2-4 scores between
universities (experiment
group)

<i>n</i>	<i>p-score</i>		Sig.	Stage 2 conventional		Stage 3 Conventional		Stage 4 Conventional	
	Pre-ethics course	Post-ethics course		Pre	Post	Pre	Post	Pre	Post
Public A	25.58	25.03	0.844	4.67	5.49	20.89	20.44	36.37	36.00
Public B	28.67	28.71	0.983	6.94	5.83	18.89	17.94	33.17	37.62
Private C	22.70	31.25	0.003*	4.85	5.38	17.95	18.64	32.07	31.11
Private D	18.44	20.11	0.587	6.90	6.43	22.38	22.20	35.36	32.02

Note: Significant at: *.01 level (two tailed)

	Class size	Pre-ethics course		Sig.	Post-ethics course		Stage 2		Stage 3		Stage 4	
		Pre	Post		Pre	Post	Pre	Post	Pre	Post	Pre	Post
Branch 1	44	28.11	28.94	0.717	6.90	6.36	20.77	16.74	31.55	39.53		
Branch 2	18	30.19	32.22	0.626	7.41	5.00	19.44	19.44	33.70	29.81		
Branch 3	23	28.55	25.51	0.439	6.67	5.51	14.93	18.99	35.79	40.14		

Table VI.
Means of *p-scores*, Stages
2-4 scores between
branches in Public B

The effect of
ethics courses

Branch 2 demonstrated increased use of post-conventional reasoning skills at the expense of Stages 2 and 4 reasoning following the ethics course. Meanwhile, Branch 3 students increased their use of conventional (Stage 4) reasoning resulting in reduced *p-scores*. None of the reported changes in the use of *p-scores* were statistically significant. This analysis shows that although a standard syllabus is used, the outcomes differ suggesting a need to investigate other causative factors.

4.2.2 *The development of ethical judgement by gender, religious affiliation and type of institution.* Table VII illustrates the results of using paired sample *t*-tests for gender, religious affiliation and type of institution, involving experiment group students. Both male and female students improved in their level of ethical judgement-making ability upon their completion of an ethics course, with the average *p-scores* of male students increasing significantly ($p < 0.05$), thus *H2* is rejected. The average *p-score* for both groups are quite similar and relatively low compared to the results obtained in western studies. Both groups prefer to use Stage 4 reasoning processes in a majority of instances.

Table VII also shows that Muslim students demonstrate little improvement in their *p-scores* compared to non-Muslim students who display a significant improvement after completing their ethics course ($p < 0.01$). This shows that *H3* cannot be rejected. Furthermore, the findings of this study indicate that on average, students from private universities benefit more from ethics courses than their counterparts in the public universities, also resulting in the rejection of hypothesis *H4*.

5. Discussion and conclusion

The findings of this study indicate that the ethics courses provided in the accounting programmes in Malaysian universities are effective overall, in that they resulted in a significant improvement in the use of post-conventional level reasoning skills by students compared to those who did not complete a course (*H1* is supported). This result is consistent with the outcome of equivalent studies conducted by others (Burks, 2006; Ponemon, 1993). The control group subjects displayed no significant improvement in *p-scores*. Again, this outcome was established in other studies involving a control group (LaGrone *et al.*, 1996; Weber and Glyptis, 2000).

However, the results show that the use of principled reasoning skills (as measured by the *p-score*) is somewhat low compared to American subjects (except for Dellaportas who surveyed Australian students) using the pre- and post-test DIT (Abdolmohammadi and Reeves, 2000; Armstrong, 1993; Dellaportas, 2006; LaGrone *et al.*, 1996; Shawver, 2006) but

	<i>n</i>	Pre	Post	Mean diff.	<i>t</i>	<i>Sig.</i>
<i>Gender</i>						
Male	43	23.10	28.45	5.35	2.296	0.027*
Female	177	25.57	27.10	1.53	1.066	0.288
<i>Religious affiliation</i>						
Muslim	160	25.79	26.27	4.79	3.47	0.729
Non-Muslim	60	23.22	30.28	7.06	2.72	0.009**
<i>Type of institution</i>						
Public	134	27.54	27.36	0.174	0.115	0.908
Private	86	21.28	27.36	6.08	2.933	0.004**

Note: Significance at: * $p < 0.05$ and ** $p < 0.01$ (two tailed)

Table VII.
Mean of pre- and post
p-scores by gender,
religious affiliation and
type of institution

relatively similar to other studies, for example Al-Ansari (2002) and Ponemon and Glazer (1990) who reported *p-scores* of university students at 25.96 and 25.50, respectively. Rest's (1990) summary of studies involving age groups indicates that the average level of ethical judgement-making ability of Malaysian University respondents in this study is on par with the average score of American high school students.

This study shows that overall, Malaysian accounting students prefer to apply conventional level (Stage 4) reasoning skills when dealing with a majority of issues and that this did not change significantly following completion of an ethics course. It is the major consideration affecting the relatively low *p-score* outcomes and deserves further discussion. Kohlberg maintains that education processes should encourage the development of principled reasoning (Stages 5 and 6) skills as it would allow students to deal more effectively with complex ethical dilemmas, which would involve them in going beyond what may or may not be laid down in extant laws and customs in order to make an effective moral choice.

This raises the issue as to how ethics should be taught to encourage the appropriate development of reasoning skills. There is evidence within Asian communities, particularly involving Muslim respondents, that Stage 4 reasoning is commonly used in making ethical decisions (Al-Ansari, 2002; Al-Shehab, 2002). However, it is important to note that Al Ansari's study included only Muslim students, whereas this present study also surveyed non-Muslim students and found that the latter benefit more from the ethics course taught in the selected group of Malaysian universities. In this instance, non-Muslim students showed significant improvements in the use of principled reasoning skills (*H3* is rejected).

It could be suggested that among factors causing non-Muslim students to improve their *p-scores* after completing an ethics course is that they may be more prepared to embrace the humanistic elements of reasoning associated with Stages 5 and 6 reasoning. For example, in Christianity, moral standards are strongly represented throughout the Bible; however, Christians (whose salvation depends on God's redeeming grace and not on adherence to the law *per se*) have a degree of freedom to individually choose to make personal judgements about what is right and wrong (Burnett, 1990). In this manner, there is an opportunity to separate what is sacred from what is secular or worldly. "Mankind was not created to live under legalistic or totalitarian rule nor under a state of total freedom with no guidelines except those of subjective feelings" (Burnett, 1990, p. 218). These perspectives are more widely accepted and adopted within the curricula of western universities, which encourage students to question and investigate their personal beliefs and values. Muslims, on the other hand, are less inclined to making distinctions between the sacred and the secular and maintain that God's law (as reflected in society's legal principles and practices) is pre-eminent, dictating right from wrong.

Past studies (Armstrong, 1987 and Ponemon and Glazer, 1990) found that accountants' *p-scores* reflect a greater percentage of Stage 4 responses and are classified into the conventional level of moral development. Patterson (2001) argues that the conventional level of moral development is where one is concerned with gaining peer approval in justifying an ethical action. This concern could be explained by the nature of accounting itself which deals with adhering to principles and codes of conduct, as well as various rules and regulations in preparing and reporting the financial statement (Ozdogan and Eser, 2007). Muslim student numbers were higher in the experiment group sample for this study and are likely to be strongly influenced by the norms associated with Islam, pre-disposing them to obey the instructions and

commandments identified in the *Quran* (the holy book of Muslims is the verbatim record of Allah's messages) and *Hadith* (words, actions and approvals of prophet Muhammad). In Islam, obeying is an act of worship or *ibadah*, which implies obeying Allah in everything that is made compulsory and not disobeying Allah in anything that is forbidden. Muslims are obedient followers in nature as one *Hadith* or prophetic statement reflects "Whatever I forbid you, remain away from. Whatever I order you to do, fulfill as much as you can" (Fontaine, 2008, p. 268).

The results of this study also highlight that although females make similar use of post-conventional level reasoning skills as their male counterparts (Table VII), males benefited significantly more from the ethics course, which is consistent with the findings of Abdolmohammadi and Reeves (2000) and Ameen *et al.* (1996). This outcome resulted in hypothesis *H2* being rejected in this instance. As females are more likely to be attracted into accounting (represented over 80 per cent of the sample for this study), it would appear appropriate that course curricula be reviewed to ensure that they encourage females to adopt higher level strategies when addressing ethical issues in business.

Results also indicate that students from private universities benefit more from their ethics courses than their public university counterparts. This results in the null hypothesis *H4* being rejected (Table VII). The main explanation for this difference is probably due to the fact that a large proportion of non-Muslim students enrol in the two selected universities and that they appear to benefit more from their completion of an ethics course. However, course content and teaching methodology may vary between private and public institutions and the effect of these would need to be examined.

In summary, this study demonstrates that Malaysian accounting students are more inclined to apply Kohlberg's conventional level (Stage 4) judgment-making (or reasoning) processes when dealing with ethical issues. Not many studies have examined the merits of Stage 4 reasoning, but in this study, an attempt is made to examine this cognitive element in some detail. It would appear that Malaysian universities using standalone ethics courses as part of the accounting curricula encourage students to make greater use of post-conventional or principled reasoning skills and at the same time continue to impress on students the importance of adhering to societal norms and legal conventions (Stage 4 reasoning). The results indicate that the ethics courses provided reshape the ethical thinking of future accountants and thus are likely to improve the local ethical climate amongst professionals in the field. The results strongly suggest that an ethics course should be introduced in all universities, both public and private, offering accounting programmes. However, it is not only about providing an ethics course but rather an effective ethics course. This should be further investigated as results in this study suggest that different universities (i.e. public versus private) adopt different syllabus and teaching practices and process, which may have a differential impact on judgement-making ability. For example, even when a standard syllabus is used as for Public B, the branches showed different outcomes in terms of improvements in moral cognitive development, suggesting that teachers may have some influence on the effectiveness of an ethics course. Factors such as an ethics lecturers' experience, ability and attitude (Leung and Cooper, 1994; Sims, 2002), committed students and class environment (such as clear course objectives, relevant course content and appropriate teaching methodologies, organizational culture) (Gilbert, 1995; Hill and Stewart, 1999; Sims, 2002, 2004) can have a positive influence on the outcome of students' judgement-making ability and this should be further evaluated in future studies.

Note

1. Refer to details in Section 3.

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Appendix

Case 1

A woman was near death from a rare type of cancer. There was one medicine that doctors thought might save her. It was a form of radium that the medical researcher in the same town had recently discovered. The medicine was expensive to make, but the medical researcher was

charging ten times what the medicine actually cost to make. He spent RM200 for the medicine formula and charged RM2,000 for a small dose of the medicine. The woman needed at least 60 doses to be cured, thus needed to raise RM120,000 for the medicine. The sick woman's husband, Zahir, went to everyone he knew to borrow the money, but he could only raise about RM50,000, which is less than half of what they needed. He told the medical researcher that his wife was dying and asked him to sell it cheaper or let him pay later. But the medical researcher said, "No, I discovered the medicine and I'm going to make money from it". So Zahir got desperate and began to think about breaking into the man's store to steal the medicine for his wife.

Task 1. Should Zahir steal the medicine?

Indicate one of the following three actions that you would take:

Should steal Can't decide Should not steal

Task 2

Please rate the following 12 statements in terms of importance on a rating scale of (1) Great, (2) Much, (3) Some, (4) Little and (5) No Importance to the moral decision that you have made in Task 1.

Rating of importance

Great (1)	Much (2)	Some (3)	Little (4)	None (5)	STATEMENTS
					1. Whether a community's laws are going to be upheld?
					2. Isn't it only natural for a loving husband to care so much for his wife that he would steal?
					3. Is Zahir willing to risk getting shot as a burglar or going to jail for the chance that stealing the medicine might help?
					4. Whether Zahir is a professional wrestler, or has considerable influence with the professional wrestlers?
					5. Whether Zahir is stealing for himself or doing this solely to help someone else?
					6. Whether the medical researcher's rights to his invention have to be respected?
					7. Whether the essence of living is more encompassing than the termination of dying, socially and individually?
					8. What values are going to be the basis for governing how people act towards each other?
					9. Whether the medical researcher is going to be allowed to hide behind a worthless law which only protects the rich anyhow?
					10. How important is the law in this case when it interferes with the important needs of the members of society?
					11. Whether the medical researcher deserves to be robbed for being so greedy and cruel?
					12. Would stealing in such a case bring about more total good for the whole society or not?

Task 3

Choose and circle the 4 most important statements out of the 12 statements given in Task 2 and rate them in relative importance to the moral decision that you have made in Task 1.

The effect of
ethics courses

Rating of importance

Most important statement _____ Second most important _____

Third most important _____ Fourth most important _____

109

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