

Students' Unethical Behaviour: Insights from an African Country

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Abstract

Purpose - This paper explores the issue of students' unethical behaviour by investigating students from Egypt. It investigates participants' concern toward ethical publishing as well as plagiarism practicing and moral reasoning.

Design/methodology/approach - Using a sample of 238 university students in Egypt, the current study deployed the McMahon and Harvey's model of moral intensity (2006) to understand and explain the unethical behaviour of students in the study.

Findings - Research findings showed that while gender does not have any significant effect on intentions to engage in unethical behaviour, level of studies has a partially significant impact in this regard.

Originality/value - Being among the first studies tackling this issue in the context of Africa, the paper provides new insights on the status of plagiarism practice by students and investigates the effects of gender and level of studies on ethical behaviour of students.

Keywords: Unethical Behaviour, Plagiarism, Students, Egypt

Paper type: Research Paper

Introduction

With the development of internet, easier access to electronic resources has been provided. While this provides scholars with a great tool in conducting a research through enabling access to literature in the shortest possible time, the negative consequences which are caused by the unethical application of information resources can not be ignored. Academic cheating and dishonesty has become a major ethical issue in today's world with an increasing incidence of cheating in form of "plagiarism" in the recent years, as a result of internet and other technological developments (Boisvert and Irwin, 2006; McCabe et al., 2001; McMurtry, 2001; Nejati et al., 2009). This has resulted in a growing concern about student plagiarism (Campbell, 2006; Sunderland-Smith, 2008).

Ethics is defined as "a systematic approach to moral judgments based on reason, analysis, synthesis, and reflection" (Christie et al., 2003; Nejati et al., 2011).

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Since today's university students will be the decision makers and managers of tomorrow, it is therefore worthwhile to examine their current attitudes toward cheating and unethical behaviour. Being among the most common forms of unethical behaviours among students, plagiarism is defined as the unauthorized application of others' material without due attribution regardless of the fact that it has been done intentionally or through carelessness. In research world, "plagiarism is widely thought of as perhaps the most grievous academic crime" (Rosamond, 2002, p. 167) since it involves the stealing of ideas or other research materials from others in order to share them as one's own original contribution to knowledge.

Besides, "within universities, plagiarism is well known to be a growing problem among students" (Martin, 2007) and "for students, the problems of avoiding plagiarism are often more complicated than academic staff acknowledge" (Richardson, 2004). The study of plagiarism among university students is of interest since it is undoubtedly the most common type of cheating and unethical behaviour practiced by students and as research has shown, past cheating is a strong predictor of future cheating (Davis and Ludvigson, 1995). As cited by Devonish et al. (2009), it is recognized that the students of today are the professionals of tomorrow, and therefore their attitudes and behaviours in the academic arena are important to the business world (Ludlum and Moskaloinov, 2005). While the issue of academic dishonesty has been studied in many different countries, such as the United States, United Kingdom, Canada, Japan, Taiwan, New Zealand and others, it is still a relatively unexplored topic in developing countries and to the best of authors' knowledge no significant research of this kind has been conducted in Africa, except the recent studies by Olasehinde-Williams (2008; 2009) which investigated the differences between preferences of staff and students in the a Nigerian university regarding three approaches of curbing academic dishonesty, namely 'police', 'virtues' and 'prevention' and did not take into consideration the issue of unethical practices. The current study aims to explore students' perception and behaviour regarding plagiarism in Egypt, as one of the key players in African education.

As Wheeler (2009) discussed, students in the West get familiar with plagiarism as early as their schooling time and by the time they enter university, they are mostly familiar with what constitutes plagiarism, and almost certainly aware of the punishments they can face if caught attempting to pass on the labours of other authors as their own. But this is not the case in developing countries as plagiarism does not necessarily carry the same negative connotations for them (Bloch, 2001; Dryden, 1999; Scollon, 1995). There is some debate on attitudes towards plagiarism among students raised outside the Western context (see for example: Angélil-Carter, 2000; Bloch, 2001; Deckert, 1993; Pennycook, 1996; Scollon, 1995). Therefore in the absence of any significant research on students' unethical behaviour in Africa, this research aims to fill this gap and add to the body of literature by investigating the issue in a large university in Egypt.

The purpose of this paper is to understand students' perceptions and behaviours toward plagiarism. Additionally, it explores the data for demographic differences. In the next section,

significance of the study and its contribution to knowledge will be illustrated. After that, a brief review of literature will be provided. The methodology and results will then be discussed, leading to the conclusion and recommendations.

Significance and Contribution to Current Knowledge

This study is significant based on several reasons. First, using a sample from Egypt, the study explores plagiarism in an African context which has been seldom investigated before. This can be a starting point for such a research and help policy makers in Egypt, if not across Africa, to get to know more about the current status of students' perceptions and behaviours toward plagiarism and as a result will enable setting plans to control and reduce plagiarism incidence. It has been demonstrated that unethical behaviour in school can lead to unethical behaviour in business and to financial ruin (Brubaker, 2003; Granitz and Loewy, 2007; Sims, 1993); therefore identifying and correcting unethical behaviour in school can have a positive impact on organizational ethics and avoid corruption. This research not only considers some common demographic variables in its analysis, as mostly focused in previous studies (Allmon et al., 2000; Coleman and Mahaffey, 2000; Crown and Spiller, 1998; Rawwas and Isakson, 2000; West et al., 2004), but it also investigates students' moral reasoning toward plagiarism. The current study contributes to what is currently a limited amount of empirical evidence to explore and investigate students' perception and behaviour regarding plagiarism in Egypt, as one of the key players in African education. This may provide the opportunity for other researchers to execute more research in this field to merge with other modification efforts that should be undertaken to put a stop to students' unethical behaviour.

This case study is the first in a series planned to investigate the students' unethical behaviour in Egypt and hopes to create more awareness among Egyptians about importance of understanding plagiarism and its consequences.

Literature Review and Hypotheses Development

Academic cheating is an issue that has garnished attention and is considered as a serious problem among college students (Crown & Spiller, 1998; McCabe & Trevino, 1996). As mentioned by Smyth and Davis (2004), academic cheating can be as simple as using crib notes in class or plagiarizing others in written assignments, or it can be as extreme as utilizing unauthorized sources for take-home exams or even hiring professionals to write papers and prepare case reports.

The findings of previous researchers show that plagiarism statistics in academia is growing rapidly. As summarized by Lin and Wen (2007) and according to the study by Lupton et al. (2000), almost 55% of the United States students reported that they had cheated during their college lives. Forty-seven percent of Georgia Southern students have committed some type of academic dishonesty (Pino & Smith, 2003). Smyth and Davis's study (2004) on 2-year college

students reported a 46% of the students surveyed had cheated at least once in their college lives. In addition, Whitley et al. (1999) reviewed 107 studies related to cheating among college students and found an average of 70.4% of students had cheated, 43.1% had cheated on examinations, 40.9% had cheated on homework assignments, and 47% had plagiarized. As reported by USA Today on May 21, 2001, at UC Berkeley, academic dishonesty cases doubled between 1995 and 1999 alone (Groark et al., 2001). Furthermore, at Virginia Tech, officials stated that cheating involving electronic media rose dramatically within one academic year, from 80 cases in 1995-1996 to 280 incidents in 1997 (Zack, 1998).

There might be various reasons behind plagiarism. Deadline pressure, difficulty keeping up, and lack of preparation for college are among some of the possible reasons. Whatever the reason is, "plagiarism is almost always a symptom of other educational problems" (Granitz and Loewy, 2007). In his paper entitled "Plagiarism: Words and Ideas", Bouville (2008, p. 311) discusses that "copying a few sentences which contain no original idea (e.g. in the introduction) is of marginal importance compared to stealing the ideas of others." This is also important and calls for more caution while using the 'plagiarism' label.

A recent study by Comas-Forgas and Sureda-Negre (2010) in a medium-sized Spanish university revealed that from the students' perspective, main factors of plagiarism included: a) aspects and behaviour of students; b) the opportunities conferred by information and communication technologies to locate, copy and paste information; and, c) aspects related to professors-lecturers and/or the characteristics of the subject-course.

There are different moral reasoning models for explaining the ethical/unethical behaviour of an individual. Kohlberg's theory of moral development (1969), for example, applies a six-stage qualitative approach which involves three main levels namely pre-conventional level (including stages 1 and 2 with a focus on individual's personal needs and desires), conventional level (including stages 3 and 4 dealing with understanding of expectations and laws of society), and post-conventional level (including stages 5 and 6 focusing on inner self).

Another related model was proposed by Rest (1979, 1986) who applied Kohlberg's assumptions. His model included various components including moral awareness, moral judgement, behavioural intentions and behaviour.

A more recent model was Jones' moral intensity model (1991) comprising of six dimensions namely magnitude of the consequences, social consensus, probability of effect, temporal immediacy, proximity, and concentration of effect:

1. Magnitude of the consequences is defined as 'the sum of harms (or benefits) done to victims (or beneficiaries) of the moral act in question' (p.374).
2. Social consensus is defined as 'the degree of social agreement that proposed act is evil (or good)' (p.375).
3. Probability of effect is the 'joint function of the probability that the act in question will actually cause harm (or benefit)' (p.375).

4. Temporal immediacy is the ‘length of time between the present and the onset of consequences of the moral act in question’ (p.376).
5. Proximity is the ‘feeling of nearness (social, cultural, psychological, or physical) that the moral agent has for victims (or beneficiaries) of the evil (beneficial) act in question’ (p.376). In other words, it relates to the feeling of social, cultural, psychological or physical closeness of the agent with the victim (or beneficiary) of the action (Lepoutre and Heene, 2006, p. 259).
6. Concentration of effect is defined as ‘an inverse function of the number of people affected by an act of given magnitude’ (p.377).

In another attempt, McMahon and Harvey (2006) reduced the moral intensity dimensions to three, namely Probable Magnitude of Consequences, Proximity and Social Consensus.

Although this research does not empirically test any of these theoretical models, it will deploy the McMahon and Harvey’s model to understand and explain the unethical behaviour of participants in the study.

As discussed by Devonish et al. (2009, p. 161), according to Fishbein and Ajzen’s (1975) proposition, the best predictors of behavioural intentions are an individual’s attitudes and subjective norms about the behaviour. Therefore, this research will build its foundation on this basis and examine students’ attitudes and moral reasoning toward plagiarism to identify their ethical/unethical intentions.

Gender

Review of literature shows a significantly lower ethical standards in males compared to females (Hill 1997; Kelly 1990), higher intentions to engage in unethical behaviour by males compared to females (Bateman and Valentine, 2010; Devonish et al., 2009; Petty and Hill, 1994; Silver and Valentine, 2000), and a faster development of high moral thought in females compared to males (Barnett et al., 1994; Buckley et al., 1998; Silver and Valentine, 2000). This might be due to different characteristics of males and females and is supported by the arguments of Gilligan’s (1977) theory that believes men and women hold different perspectives on ethical issues. However, there are also some studies which have found the effects of gender differences on ethical perceptions and behaviours to be minimal or non-significant (McCuddy and Perry, 1996; Rowe and Snizek, 1995).

We hypothesize that:

H1: Male students will show higher intentions to engage in unethical behaviour than female students.

H1a: Male students are less concerned toward ethical publishing than female students.

H1b: Male students are more lenient toward practicing plagiarism behaviours than female students.

H1c: Male students are more lenient toward justifying plagiarism behaviours than female students.

Level of Studies

Normally students with a higher level of studies have spent a longer time of their life in academic environments and possibly have been more exposed to courses, lectures or situations which highlight the importance of avoiding plagiarism. Especially for master and PhD studies where students work more closely with their supervisors, they might find the chance to learn from the experiences of their supervisors and be guided by them. Therefore, it is expected that by increase in level of studies, the level of awareness toward plagiarism will increase among students. Therefore it is conjectured that:

H2: There is a significant difference in intentions to engage in unethical behaviour among students with different level of studies.

H2a: There is a significant difference in concern toward ethical publishing among students with different level of studies.

H2b: There is a significant difference in practicing plagiarism behaviours among students with different level of studies.

H2c: There is a significant difference in justifying plagiarism behaviours among students with different level of studies.

Method

This section provides relevant information regarding the participants and procedure of data-collection as well as the main instrument of the study.

Data

Unit of analysis in this study includes individual university students. The sample was collected from students of a large university in Egypt using convenient sampling. A total of 300 surveys were distributed, and after removing unusable surveys, 238 completed questionnaires were obtained for use in this study, representing a response rate of 79.3%. Male respondents form 56.3% of the participants. While the majority of respondents are Muslim (94.1%), there are also 14 Christians (5.9%) among respondents. This ration is consistent with the overall religion distribution of Egypt, where Muslims make up over 90% of the population and between 5 to 20% are identified as Christians. Table 1 summarizes the key characteristics of the sample.

Table 1: Demographic characteristics of the study sample

		Frequency	Percentage
Gender	Male	134	56.3%
	Female	104	43.7%
	Total	238	100%
Religion	Islam	224	94.1%
	Christianity	14	5.9%
Current Level of Studies	Bachelor	26	10.9%
	Masters	138	58.0%
	PhD	74	31.1%
Number of Published Papers in the Last 2 Years	None	48	20.2%
	1 to 3	168	70.6
	More than 3	22	9.2

Questionnaire

A self-administered questionnaire was used as the main data collection instrument for the study. A group of four researchers from Iran, Japan and Egypt (2 from Iran, one from Japan and one from Egypt) set up the questionnaire, which is presented in Appendix.

Descriptive characteristic of the respondents was investigated through variables including sex, religion, and current level of studies. Since majority of people (including students) are Muslim, therefore religion will not be used as a variable in this study and is merely included in the questionnaire to collect further demographic information about the study sample. Respondents were also asked about their number of published papers during the last 2 years and their level of concern about ethical publishing when submitting a paper to an International journal. The familiarity of respondents with plagiarism was also investigated with response items ranging from “I haven’t heard of it” to “I am completely familiar with it”. In question 4, respondents were asked to select their frequency of committing a list of behaviours which are considered as plagiarism. The list was extracted from the common plagiarism behaviours as introduced by anti-plagiarism softwares (PlagiarismdotORG, 2010). A likert scale ranging from “1=never” to “5=always” was used for this purpose, with a higher score indicating higher unethical behaviour. Question 5 investigates students’ values by asking how acceptable they found each of those behaviours mentioned in the previous section. A five point likert scale ranging from “1= I think this type of behaviour is completely unacceptable” to “5= I think this type of behaviour is perfectly acceptable” was applied to measure this; a higher score on this scale indicated higher intentions to engage in unethical behaviour.

Statistical Procedure

Independent samples *t* tests were used to test the hypotheses on gender, whereas one-way analyses of variance (ANOVA) were used to test hypotheses relating to level of studies and publication experience. These tests were carried out at the five percent level of significance

($p < 0.05$). Finally, in order to model students' ethical publishing concern, linear regression was applied.

Results and Discussion

This section presents the main results of the study. First we will present the descriptive statistics and then address the hypotheses of the study by using tests of significance carried out at the five percent level of significance ($p < 0.05$).

Descriptive Statistics

In order to answer the first research question on the concern level of students on ethical publishing, table 2 is prepared. As it can be observed, more than a half of respondents feel concerned in a way (either fairly concerned, much concerned or extremely concerned). Furthermore, level of studies seems to have an important impact on the level of students' concern since none of the bachelor level students are concerned about ethical publishing while this level increased greatly with the increase of students' level of studies. This is expectable since at bachelor level, usually students do not publish papers and are not familiar with publishing issues. That's why at masters level 61.6% of the students feel fairly or more concerned and at PhD level, 66.2% of the students feel fairly or more concerned about ethical publishing. Classification of the findings based on students' number of published papers also shows that those who have not had a paper, are not feeling concerned at all, while with the increase in the number of publications in the past two years, the level of concern increases.

Table 2: Students Concern about Ethical Publishing

Variable		Not at all	A little bit	Fairly concerned	Much concerned	Extremely concerned	Total
Gender	Male	30	30	32	32	10	134
	Female	26	18	40	16	4	104
	Total	56	48	72	48	14	238
Level of Studies	Bachelor	26	0	0	0	0	26
	Masters	27	36	55	23	7	138
	PhD	3	22	17	25	7	74
Total		56	48	72	48	14	238
No. of Published Papers	None	48	0	0	0	0	48
	1 to 3	8	45	67	41	7	168
	More than 3	0	3	5	7	7	22
	Total	56	48	72	48	14	238

Table 3 shows the frequency of common plagiarism behaviour among male and female students. Based on the findings, Egyptian students, both male and female, never practice "turning in someone else's work as their own", "copying words or ideas from someone else without giving credit", and "failing to put a quotation in quotation marks". Furthermore, less than 25% of the students (25% for male and 23% for female) rarely practice "copying so many words or ideas

from a source that it makes up the majority of your work” and the rest never do this behaviour. The most common forms of plagiarism behaviours among Egyptian students are “giving incorrect information about the source of a quotation”, with 40% of male and 41% of female students sometimes doing it, and “changing words but copying the sentence structure of a source without giving credit”, with 34% of male and 33% of female students doing it.

Table 3: Common Plagiarism Behaviours by Male and Female Students

Plagiarism Behaviour	Male	Female
Turning in someone else’s work as one’s own	Never: 134 (100%)	Never: 104 (100%)
Copying words or ideas from someone else without giving credit	Never: 134 (100%)	Never: 104 (100%)
Failing to put a quotation in quotation marks	Never: 134 (100%)	Never: 104 (100%)
Giving incorrect information about the source of a quotation	Never: 27 (20%) Rarely: 54 (40%) Sometimes: 53 (40%)	Never: 19 (18%) Rarely: 43 (41%) Sometimes: 42 (41%)
Changing words but copying the sentence structure of a source without giving credit	Never: 31(23%) Rarely: 58 (43%) Sometimes: 45 (34%)	Never: 22 (21%) Rarely: 48 (46%) Sometimes: 34 (33%)
Copying so many words or ideas from a source that it makes up the majority of your work	Never: 101(75%) Rarely: 33 (25%)	Never: 81 (78%) Rarely: 23 (22%)

Considering the scoring of “Never=1”, “Rarely=2”, “Sometimes=3”, “Often=4”, and “Always=5”, we calculate the plagiarism score of students by using the mean of the 6 listed plagiarism activities. Therefore the plagiarism score for male respondents is 1.424 with a standard deviation of 0.252 and the plagiarism score for female respondents is 1.426 with standard deviation of 0.236, with higher scores indicating a more tendency toward plagiarism. Therefore as we can see, overall mean scores were below 3, with 3 considered as the midpoint. This shows that generally students were not much likely to engage in any of the six common plagiarism behaviours, with “turning in someone else’s work as one’s own”, “copying words or ideas from someone else without giving credit”, and “failing to put a quotation in quotation marks” receiving the least frequency (never for all male and female students). Cronbach’s coefficient alphas for this scale was 0.61 which indicates a satisfactory level of internal consistency considering the current number participants and low number of items (which was 3, since three of the six items namely “turning in someone else’s work as one’s own”, “copying words or ideas from someone else without giving credit”, and “failing to put a quotation in quotation marks” had a zero variance and were therefore removed from the scale for the reliability test.

Gender and Unethical Behaviour Intentions

In order to test research first hypothesis on gender differences in intentions to engage in unethical behaviour, three sub-hypotheses were tested. An independent samples t-test was

conducted for each of them, namely concern toward ethical publishing, practicing plagiarism, and plagiarism moral reasoning. While table 4 provides the general findings related to gender differences, tables 5 to 7 summarize the results of these tests.

Table 4: Descriptive Analysis of Gender Differences

		Gender	
		Male	Female
Number of Published Papers	None	27	21
	1 to 3	96	72
	More than 3	11	11
Ethical Publishing Concern	Mean	2.716	2.558
	Std.	1.260	1.139
Practicing Plagiarism	Mean	1.424	1.426
	Std.	0.252	0.236
Plagiarism Moral Reasoning	Mean	1.256	1.258
	Std.	0.212	0.290

Note 1: The values in parentheses show the percentage.

Note 2: A higher mean in ethical publishing concern indicates a higher *ethical* attitude, while a higher mean in practicing plagiarism and plagiarism moral reasoning indicates a higher *unethical* attitude.

Table 5: Significance of Gender Differences on Students Concern toward Ethical Publishing

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Ethical publishing concern	Equal variances assumed	2.175	0.142	1.005	236	0.316
	Equal variances not assumed			1.018	230.528	0.310

Table 6: Significance of Gender Differences on Practicing Plagiarism

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Plagiarism behaviour	Equal variances assumed	0.965	0.327	- 0.067	236	0.946
	Equal variances not assumed			- 0.068	228.136	0.946

Table 7: Significance of Gender Differences on Plagiarism Moral Reasoning

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Plagiarism moral reasoning	Equal variances assumed	0.015	0.902	- 0.055	236	0.956
	Equal variances not assumed			- 0.053	181.977	0.958

As observed in table 4, unlike general perception and previous studies, male students were observed to have a slightly less lenient attitude toward plagiarism. However, test results indicate that there is no significant statistical difference between male and female students on any of the three dimensions. Therefore, research finding does not indicate any significant difference in unethical behaviour of male and female students at a confidence level of 95%. The findings do not support any of the three sub-hypothesis and therefore hypothesis 1 not supported. This is consistent with the findings of McCuddy and Perry (1996) who discovered that gender and unethical behaviour were unrelated.

Level of Studies and Unethical Behaviour Intentions

In order to test the second hypothesis on the effects of level of studies in students' intentions to engage in unethical behaviour, one-way ANOVA test is applied. Similar to the first hypothesis, three sub-hypotheses are tested involving the effect of level of studies on concern toward ethical publishing, practicing plagiarism, and plagiarism moral reasoning. While table 8 provides the general findings related to gender differences, tables 9 to 11 summarize the results of the one-way ANOVA conducted to test the effect of level of studies on the intentions to engage in unethical behaviours.

Table 8: Descriptive Analysis of Level of Studies Differences

		Current Level of Studies		
		Bachelors	Masters	PhD
Number of Published Papers	None	26 (54.2%)	19 (39.6%)	3 (6.3%)
	1 to 3	0 (0%)	113 (67.3%)	55 (32.7%)
	More than 3	0 (0%)	6 (27.3%)	16 (72.7%)
Ethical Publishing Concern	Mean	1.00	2.688	3.149
	Std.	0.00	1.119	1.081
Practicing Plagiarism	Mean	1.077	1.460	1.482
	Std.	0.212	0.221	0.196
Plagiarism Moral Reasoning	Mean	1.250	1.273	1.230
	Std.	0.184	0.273	0.218

Note 1: The values in parentheses show the percentage.

Note 2: A higher mean in ethical publishing concern indicates a higher *ethical* attitude, while a higher mean in practicing plagiarism and plagiarism moral reasoning indicates a higher *unethical* attitude.

Table 9: Significance of Level of Studies Differences on Students Concern toward Ethical Publishing

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	89.387	2	44.693	40.873	0.000
Within Groups	256.966	235	1.093		
Total	346.353	237			

Table 10: Significance of Level of Studies Differences on Practicing Plagiarism

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.561	2	1.780	39.357	0.000
Within Groups	10.631	235	0.045		
Total	14.192	237			

As it can be observed, increase in the level of studies results in increase of ethical publishing concern of students. Findings show that none of the undergraduate students showed any concern for ethical publishing. This is apparently due to their lack of involvement in publication activities.

Table 11: Significance of Level of Studies Differences on Plagiarism Moral Reasoning

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.091	2	0.046	0.738	0.479
Within Groups	14.550	235	0.062		
Total	14.641	237			

However, students at masters and PhD level which are mostly engaged in publication activities have a higher concern in this regard with master students having a concern level of below the mean and PhD students having a concern level of above the mean. Therefore, based on McMahon and Harvey's model (2006), PhD students have a higher level of social consensus and are consequently expected to have a more ethical behaviour. As it can be observed, this higher social consensus is reflected in their moral reasoning where PhD students show the highest moral awareness regarding plagiarism. However, when it comes to practicing it in real world, PhD students are observed to have the least ethical behaviour among the three observed group. This can be justified due to the fact that there are various dimensions affecting the ethical behaviour

of students and while stronger status of social consensus dimension avoids PhD students from unethical behaviour, the level of probable magnitude of consequences and proximity is not strong enough to stop Egyptian PhD students from unethical behaviour. In the context of Egypt, not enough programs have been planned to inform students on the possible consequences of plagiarizing. This will result in creating a general perception that universities in Egypt are easy going in terms of originality of the students' contributions and therefore making the possible harms caused by plagiarizing much lower in the eyes of students than the benefits obtained. Similarly, although eventually the victim of plagiarism will be the student who practices the behaviour, due to lack of sufficient communication on how plagiarism will be punished, Egyptian students find themselves far from the negative consequences of this act. Therefore, based on McMahon and Harvey's model, while the social consensus dimension stops Egyptian PhD students from plagiarism, the relatively stronger levels of the other two dimensions (magnitude of the consequences and proximity) lead to more tendencies toward unethical behaviour (plagiarism) by PhD students.

As the findings show, there is a significant difference on concern toward ethical publishing as well as practicing plagiarism among students with different level of studies at a significance level of 95%. However, no significant difference is observed on plagiarism moral reasoning of students with different level of studies. Therefore two of the three sub-hypotheses are accepted leading to a partial acceptance of the second hypothesis. So we conclude that there is a partially significant difference in intentions to engage in unethical behaviour among students with different level of studies.

Although no previous study was found to investigate the effect of level of studies on intentions to engage in unethical behaviours, in a different investigation with some contextual similarities, Glen (1992) and Hildebeitel and Jones (1992) argue that students who took courses containing some material on ethics as a part of their degree programme held more positive attitudes to sound ethical principles. While this is not directly related to the variable tested here, our study also showed that there is a partially significant difference between students with different levels of studies which can be caused by their longer exposure to academic environment where they will have the chance to gain awareness on ethical issues through direct or indirect participation and involvement in ethical-related courses, lectures, etc. The current study, however, revealed that although with increase in level of studies, students show a higher concern toward ethical publishing, they do not necessarily perform a more ethical behaviour regarding plagiarism which was discussed earlier using McMahon and Harvey's model (2006).

Conclusions and Limitations

Based on the findings obtained in this research, we conclude that although university students in Egypt are not extensively committing plagiarism at the time being, there are signals indicating that Egyptian students justifying this unethical practice once they commit that. The discussion on

McMahon and Harvey's model showed that the relative strength of each of the three dimensions determines whether the student will practice an ethical or unethical behaviour. In our study, for instance, while social consensus dimension avoided unethical behaviour of students, the relatively stronger levels of magnitude of the consequences and proximity, which were more in favour of an unethical behaviour in PhD students, resulted in a less ethical behaviour of PhD students regarding plagiarism. To solve this problem, it is necessary to improve the latter two dimensions. As for the magnitude of the consequences, university policy makers can set strict and practical rules and disciplinary measures for students committing plagiarism. These rules and disciplinary measures should be communicated publicly with students so that they can feel the harm resulting from practicing this unethical behaviour. As for the proximity dimension, the immediately above mentioned plans can help improve the status of this dimension as well. Besides, to ensure that students don't find the issue un-monitored where they can take unethical advantage of the gap, universities can make use of available softwares which help identify and detect potential plagiarism. The application of such softwares should again be publicly announced throughout university and introductory sessions on the software should be held where students can be informed on how the software might help university to detect plagiarism and as a result students' write ups will be monitored, not allowing any academic dishonesty.

While this study contributed to the body of literature by providing insights from Africa, it is also of interest to educational policy makers to be alarmed on the latest status of unethical behaviour toward plagiarism in an African country which plays an important role in Africa.

This study is not without limitations. While taking into consideration the effect of a less investigated variable (level of studies) which was shown significant, it does not consider the effects of degree program or students exposure to ethics in curriculum. Previous studies have shown a positive relationship between exposure to ethical content in business courses and sound ethical judgments (Glen, 1992) and indicated the possible influence of the area of study (or degree programme) on ethical values and attitudes among students (Hanson and McCullagh, 1995; Sankaran and Bui, 2003). Another limitation of this study is related to the issue of "social desirability" where subjects may respond to what they think is socially desirable. However, the best effort has been made to keep this limitation at a minimal level by assuring respondents that their completed questionnaire will be treated confidentially.

Investigating again on McMahon and Harvey's model, future studies can explore how the three existing dimensions excel each other in leading to an ethical/unethical behaviour. In this regard, in-depth interviews with two group of students who can be a representative of ethical group and unethical group (the ones caught plagiarizing) can provide helpful insights. Last, but not the least, the findings of this research can help educational policy makers as well as society to gain awareness on the current status of intentions to engage in unethical behaviour, specifically plagiarism, and enable them to take precautionary plans and actions to avoid any future rapid and uncontrollable growth of this common academic phenomenon.

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Appendix

Dear Student,

The following questionnaire is designed for an academic research on ethical publishing behaviours. It will take almost *5 minutes* to complete. Since the questionnaire is anonymous, please kindly complete it honestly. Thank you very much in advance.

Sex: Male Female

Religion: Islam Christianity Others

Current Level of Studies: Bachelors Masters PhD

1) Approximately, how many International papers have you published during the last 2 years?

- None
- 1 to 3
- More than 3

2) When submitting a paper for an International journal, how much are you concerned about ethical publishing?

- Not at all
- A little bit
- Fairly concerned
- Much concerned
- Extremely concerned

3) How familiar are you with “Plagiarism”?

- I haven't heard of it.
- I have heard of it, but know very little and/or nothing about it.
- I am almost familiar with it.
- I am completely familiar with it.

4) How often do you do any of these behaviours? Please select your choice.

Behaviour	Never	Rarely	Sometimes	Often	Always
Turning in someone else's work as your own					
Copying words or ideas from someone else without giving credit					
Failing to put a quotation in quotation marks					
Giving incorrect information about the source of a quotation					
Changing words but copying the sentence structure of a source without giving credit					
Copying so many words or ideas from a source that it makes up the majority of your work					

5) How acceptable do you believe these behaviours are? Please select your choice.

Behaviour	I think this type of behaviour is completely unacceptable	This type of behaviour is unacceptable, but in certain situations I might do it	I can see situations where this might be acceptable and others where it is unacceptable	This type of behaviour is not serious and can be largely ignored	I think this type of behaviour is perfectly acceptable
Turning in someone else's work as your own					
Copying words or ideas from someone else without giving credit					
Failing to put a quotation in quotation marks					
Giving incorrect information about the source of a quotation					
Changing words but copying the sentence structure of a source without giving credit					
Copying so many words or ideas from a source that it makes up the majority of your work					

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