

Plagiarism amongst research students in the University of Moratuwa (UoM) in Sri Lanka

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Abstract

Plagiarism has become a major issue in learned societies with the advent of sophisticated software and information via digital media, though the scholars should practice qualities of honesty, ethics and professionalism. Under this circumstance, it is obligated to explore the concerns on plagiarism in the University of Moratuwa (UoM) as information professionals. Therefore, this research focuses on investigating the state of affairs about plagiarism of the research students in the UoM. The survey research strategy was adapted and a structured questionnaire was distributed among 181 stratified random sample of final year students and the postgraduate students in the UoM. Results reveal that even though most of research students suppose that they are knowledgeable about plagiarism, they do not have a complete knowledge of plagiarism. Further the eight significant factors affecting plagiarism were extracted using the principal component analysis. The key factor to lead plagiarism was the lack of awareness about plagiarism. Therefore, the recommendations were composed to make research students aware of plagiarism via specific programs.

Keywords: Plagiarism, Awareness about plagiarism, Academic dishonesty

Introduction

Universities produce graduates with high skills and competency to serve society with honesty, ethics and professionalism. Therefore, graduates should move to the society as honest in crediting and acknowledging the authors for their innovations. However, due to easy access to an infinite amount of information and resources, "academic dishonesty and plagiarism" is on the rise in higher education institutions worldwide (Brimble & Stevenson-Clarke, 2005).

Simply speaking, plagiarism means using the words and thoughts of others' ideas, concepts, images, sentences etc. as if they were one's own, without crediting the creator or citing the source. Plagiarism is defined as "the intentional use of the ideas and words of others without the clear acknowledgement of the source of that information" (Smith, Ghazali, & Minhad, 2007). Further, the Oxford English Dictionary (2010) defines plagiarism as "the action or practice of taking someone else's work, ideas, etc., and passing it off as one's own: literary theft". Similarly, Janowski (2002) has identified the range of activities that might be thought to constitute plagiarism which will be considered for the current study:

- buying or downloading a paper from a research service or a term paper-mill and offering it as your own;
- turning in another student's work, with or without that student's knowledge, as your own;
- copying any portion of another's work without proper acknowledgment;
- copying material from a source and supplying proper documentation, but leaving out quotation marks or failing to indent properly; and
- paraphrasing ideas and language from a source without proper documentation.

Plagiarism has been a major concern in educational institutions (Breen & Maassen, 2005) and it has become more severe in this digital era where all the information is confined with novel technologies in a sophisticated manner. Those digital practices divert people to plagiarize. Shirazi, Jafarey & Moazam (2010) and Sheikh (2008) have pointed out that plagiarism is a common problem worldwide. Therefore, this issue is discussed in academic institutions and different methods introduced to overcome this problem among their students and researchers (Ramzan, Munir, Siddique, & Asif, 2012). It is obvious that plagiarism is a problem in universities and it is an obligation to investigate whether the research students are aware of plagiarism; Why do they plagiarize? What are policies in universities and whether this trend is rapidly continuing.

Although plagiarism has become a major problem in universities and the numbers growing rapidly all over the world, very limited studies had been conducted in Sri Lanka. Due to the non-availability of a specific study on the awareness of plagiarism regarding

University students studying Engineering subject in Sri Lanka, the current research aims to fill this gap by examining the students' awareness regarding plagiarism and the reasons leading to plagiarism.

Objectives of the study

The main objective of the study is to explore the responsiveness on plagiarism amongst final year students and research students of the University of Moratuwa, Sri Lanka. The specific objectives of the study are;

1. To examine the level of awareness concerning plagiarism among the research students
2. To examine the awareness about university policies on plagiarism
3. To investigate the major reasons for plagiarizing

2 Literature review

Studying the environment of plagiarism has been a major issue of Information Science research since researchers' dishonesty has been increasing day by day. Therefore empirical evidence of academic dishonesty is vastly researched all over the world. Many studies have been conducted in western countries and they have focused on different user contexts, various perspectives and a number of different aspects.

Plagiarism among university students

Several researches have been conducted to examine plagiarism in universities. Among academic institutions, universities have been identified as a common place where plagiarism is highly noted. Davis states that academic dishonesty has been prevailing in every discipline in academic institutions and is not a new issue. Davis, Grover, Becker, & McGregor (1992), Karlins, Michaels, & Podlogar(1988) and Power adds that research has been conducted on how different ways of cheating occur in all disciplines and specially at university level.

Plagiarism among college students has been studied by Hale (1987) who found that 55% of the students reported to have plagiarized material. Similarly, Lloyd (2000) found over 40% of UK university students have been involved in plagiarism and the increases in the occurrences of plagiarism was mainly by students. Further, a study from USA, revealed that most of the students accepted the fact that they cheated while submitting projects and assignments (Ameen, Guffey, & McMillan, 1996).

Clough describes that students in academic institutions tend to copy from materials such as books, journals, Internet etc. with no references made to the main source (Clough, 2000). O'Connor mentions that students are unaware of what plagiarism is and what leads to plagiarism. O'Connor (2003), Scanlon & Neumann (2002) and McCabe (1999)

points out that it is a common feature to note that most of the university students fail to acknowledge the original authors. Rosnow adds that less knowledge in how to cite and paraphrase information leads to plagiarism, and because of that they tend to plagiarize (Rosnow & Rosnow, 2008). Therefore it is apparent that awareness of plagiarism is a must.

Plagiarism and electronic media

Ramzan adds that till mid-nineties many plagiarized from printed materials (Ramzan et al., 2012). Yet, Batane and Price mention that through internet and word processing software, plagiarism has become a major factor (Batane, 2010; Price & Price, 2005). This helped students to access many resources required for their studies which opened many avenues for plagiarism (Howard, 2007; Brians, 2002; Selwyn, 2008) and reported that about 60% undergraduate students in UK higher educational institutions used materials retrieved from Internet and that such Internet users were more involved in plagiarism.

Ramzan et al. state that there is a misconception that plagiarizing Internet resources is less problematic than using printed materials. Ramzan et al., (2012) and Galus (2002) records that Internet allows to copy the information easily. Evans, Stebelman (1998) and Baruchson-Arbib & Yaari (2004) mention that students believe that access to Internet is free and has no restrictions in obtaining information from it and no acknowledgement is required. As such McMurtry (2001) points out that Internet paves the way to plagiarism as it provides the facility to copy and paste, download texts, obtain papers submitted by students in other universities.

Bugeja (2001) notes that recently there is a tendency to download papers from web sites without acknowledging the authors: “. . . officials at some colleges say that in recent years they have seen a sharp increase in students cutting and pasting material into papers from web sites without attribution, or purchasing term papers from on-line term-paper mills (p. 22)”. Scanlon & Neumann (2002) in their study report that 16.5% of students copy without acknowledging “sometimes” and 8% “often” or “very frequently” and 50.4% by the colleagues of the students. They also indicate that 8.3% of students purchased papers from on-line term paper mills “sometimes” or “very frequently” 62.2% of students estimated that their colleagues access web very often (Scanlon & Neumann, 2002).

Auer & Krupar (2001) point out that copying text online is easier than retyping materials from a book. In this techno-centric era, this is a common situation as universities allow students to use their own computers. Yeo (2007) emphasizes that there is a high tendency

to plagiarize electronic resources and in considering the subject discipline engineering, this field tops with highest occurrences. Therefore, it is important to further research this situation with students following Engineering courses in the Sri Lankan context.

Reasons to plagiarize by university students

There may be different reasons for plagiarism to exist in academic institutions. Many researchers have focused on this aspect and ended with tremendous reasons to plagiarize and made recommendations to avoid plagiarism in academia.

While Ashworth, Bannister, & Thorne (1997) find that the student has no clear idea of what plagiarism is, but that attitudes of students and teachers affect plagiarism (Evans & Youmans, 2000; Ponemon & Glazer, 1990; St Pierre, Nelson, & Gabbin, 1990). Sierles & Hendrickx (1980) showed that students faced with obtaining high-grades tend to plagiarize. Their study further analyzed that supervisors did not enforce rules for plagiarizing, therefore less opportunity for punishments. McGowan (2005) mentioned that foreign students in higher educational institutions tend to plagiarize as language difficulties come in. They need to undergo a transitional period to get familiarized in doing research in a different language. Due to this delay in their research work, plagiarizing seems to be the only option available to them.

However, the reasons to plagiarize found by many researchers (Park, 2003; Cummings, Maddux, Harlow, & Dyas, 2002; Auer & Krupar, 2001; Caruana, Ramaseshan, & Ewing, 2000; Love & Simmons, 1998; Franklyn-Stokes & Newstead, 1995; Roig & DeTommaso, 1995) can be summarized into six causes as external and internal and depicted in Table 2.1.

Table 2.1: Causes to plagiarize in university contexts

Cause	Description
Internal causes	
Lack of awareness	Students do not fully understand what constitutes plagiarism, or what the penalties for its detection are, they may not see it as a problem.
Personal attitudes	Positive or negative attitudes and willingness to expend effort will be reflected in the incidence of plagiarism, since cheating may be seen as a suitable, if risky, alternative to hard work
Lack of competence	Lack of confidence in completing assignments, at a technical or inter-personal level, which may contribute to plagiarism.
External causes	
Pressure	Task, time, grade and family pressures are all acknowledged as potential contributors to plagiarism.

Internet facilities	Improved downloading facilities and wider broadband access have facilitated access to information, and simplified the process of “cut and paste” plagiarism from such sources.
Institution	Cheating and plagiarism continue to have increasing exposure in universities. Institution-specific factors can take many forms, including the attitudes of lecturers and administrators to the incidence of plagiarism, and the associated prevention, detection and punishment mechanisms in place.

Source: Smith et al.(2007)

As shown in Table 2.1, lack of awareness on plagiarism is one of the major causes to plagiarize by university students. Further, students should be aware of policies implemented by the university on plagiarism and how much they are strict (University Grants Commission, 2012). However, in order to prevent plagiarizing, observations of rules and constant reminding by supervisors are expected by the students. In addition, awareness programs on referencing styles, mainly on Internet resources are expected by students. Therefore, exploring the phenomenon of awareness on plagiarism is useful to make solutions to avoid academic dishonesty among students.

3. Research methodology

To gain a better understanding of the attitude towards plagiarism among the research students in the University of Moratuwa, the survey research strategy was adopted to describe the current problem in quantitative manner using structured questionnaires as the data collecting tool.

Students who are engaged in research activities for their courses in the University of Moratuwa, were the target population for the research. Usually, the final year students and the postgraduate students have a compulsory research component as a partial fulfillment for their degree programs. Therefore, the final year students and the postgraduate students were considered as the study population. There were 1129 final year students and 792 postgraduate students in the registration list of the university.

The sample size was determined according to Yamane (1967) simplified formula under 10% precision level and 95% confidence level and the formula was employed separately for two identified stratum: final year students and post graduate students. Ninety two (92) final year students and eighty nine (89) postgraduate students were drawn using the stratified sampling technique. The total sample was hundred and eighty one (181) which is 9.4% of the study population.

The questionnaire was developed in three main parts to collect the background information of the research students, awareness about plagiarism and the reasons to plagiarize. Most of the questionnaire items were adopted from the study of Smith et al. (2007). The questionnaire was electronically distributed during August-October 2014 among the randomly selected students.

4. Findings of the study

The focus of the current study was to explore the responsiveness on plagiarism amongst research students in the University of Moratuwa. It was supposed to examine the level of awareness concerning plagiarism, explore the awareness about university policies and investigate the major factors causing plagiarism.

Out of 181 questionnaires distributed, 173 were completed. The response rate was 95.58% which is adequate for the analysis. 98.91% of final year students and 92.13% postgraduate students contributed in completing the questionnaire.

Background information of respondents

Table 4.1 shows the distribution of the respondents according to their background information. According to the Table 4.1, the majority of the respondents (55.6%) were males and most of them (74%) were in the age group of 21-30. Further it shows that the highest percentage of engineering students (66.5%) represented the respondents of the study.

Table 4.1: Distribution of respondents

		Final year students	Postgraduate students	Total
Faculty	Architecture	30 (33.0%)	15 (18.3%)	45 (26.0%)
	Engineering	55 (60.4%)	60 (73.2%)	115 (66.5%)
	IT	6 (6.6%)	7 (8.5%)	13 (7.5%)
Age	Below 20	0 (.0%)	0 (.0%)	0 (.0%)
	21-30	90 (98.9%)	38 (46.3%)	128 (74.0%)
	31-40	1 (1.1%)	29 (35.4%)	30 (17.3%)
	41-50	0 (.0%)	13 (15.9%)	13 (7.5%)
	51-60	0 (.0%)	1 (1.2%)	1 (.6%)
	Above 60	0 (.0%)	1 (1.2%)	1 (.6%)
Gender	Male	51 (56.0%)	45 (54.9%)	95 (55.6%)
	Female	40 (44.0%)	37 (45.1%)	76 (44.4%)
Total		91(52.6%)	82(47.4%)	173(100%)

Then the respondents were asked the kind of sources they use to find information for their research activities and the results were summarized in the Figure 4.1.

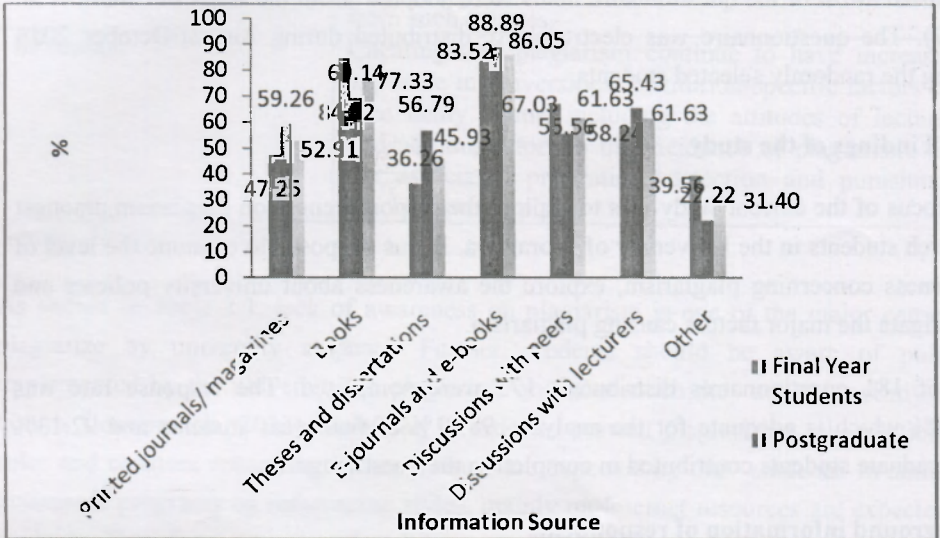


Figure 4.1: Sources used to find information

Respondents were asked whether they use any referencing manuals, since they provide guidance for users to acknowledge others' work. Majority of the research students (83.1%) stated that they use referencing guidelines for their research activities and only 16.9% have not known about the referencing guidelines.

Level of awareness concerning plagiarism

As the first step, respondents were asked whether they know about plagiarism or not. Most of them (92.44%) have responded that they know about plagiarism and only 7.56% respondents have informed that they do not know about plagiarism. As depicted in Figure 4.2, a higher percentage of postgraduate students (11.0%) do not know about plagiarism when compared with final year students.

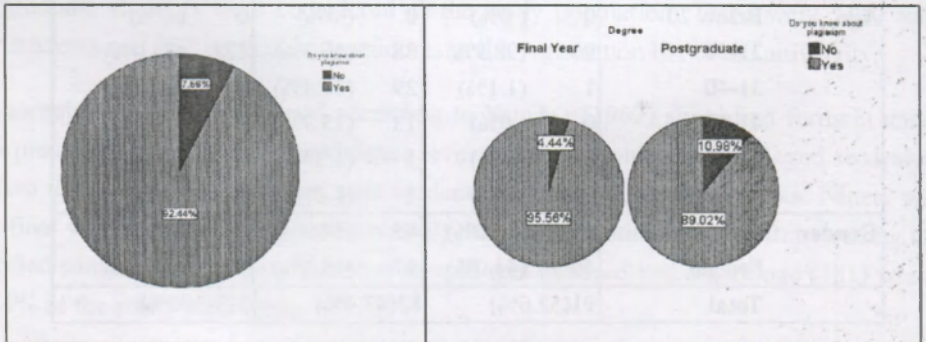


Figure 4.2: Awareness about plagiarism

Next they were questioned about their awareness of university policies on plagiarism. Results were summarized in Figure 4.3.

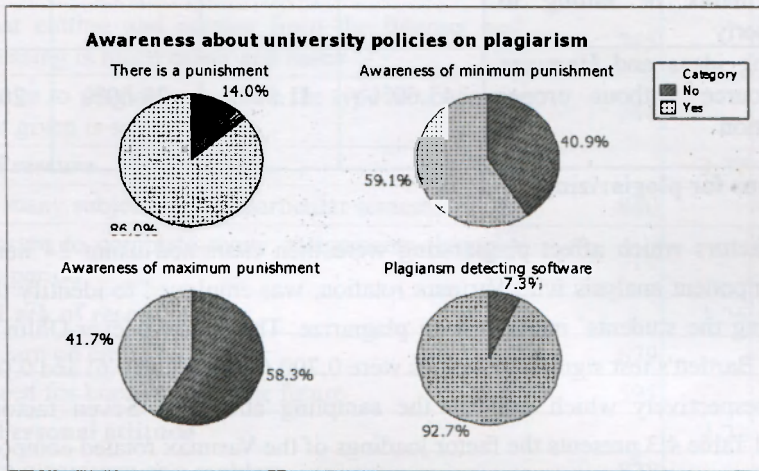


Figure 4.3: Awareness about university policies on plagiarism

As shown in Figure 4.3, majority of the research students know the existing punishment if they plagiarize, the minimum punishment and the availability of software to detect plagiarism. Yet, most of the research students do not know that the maximum punishment is the cancellation of the candidature from all the examinations pertaining to the particular semester in which the offence was committed. These results do not indicate any significant differences with background information of the respondents.

However, these results indicate that most of the research students in the UoM are supposed to know about plagiarism. Therefore, in order to confirm this aspect, five questions leading to plagiarism were included in the questionnaire. They help to further examine the level of awareness on plagiarism of the research students in the UoM. Results are presented in Table 4.2.

Table 4.2: Level of awareness about plagiarism

Clauses on plagiarism	Plagiarism	Cheating	Not plagiarism	Uncertain
Buying or downloading a paper and offering it as a own.	63.70%	24.60%	6.40%	5.30%
Turning in another student's work, with or without that student's knowledge, as own	47.90%	40.30%	5.90%	5.90%
Copying any portion of another's work without proper acknowledgment	78.10%	11.80%	4.70%	5.40%

Copying material from a source and supplying proper documentation, but leaving out quotation marks or failing to indent properly	36.50%	7.80%	32.30%	23.40%
Paraphrasing ideas and language from a source without proper documentation	47.60%	11.80%	20.60%	20.00%

Major reasons for plagiarizing

The major factors which affect plagiarizing were then examined using 24 items. The principal component analysis with Varimax rotation, was employed to identify the main factors causing the students' inclination to plagiarize. The Kaiser-Meyer-Ohlin (KMO) measure and Bartlett's test significant values were 0.700 (higher than 0.6) and 0.000 (less than 0.05) respectively which indicate the sampling adequacy. Seven factors were extracted and Table 4.3 presents the factor loadings of the Varimax rotated components.

Table 4.3: Varimax rotated principal components

Principle components	Correlation	Eigen value	% of Variance
Factor 1- Lack of awareness		4.46	18.565
I do not know how to acknowledge properly the author through citation	.755		
I do not know institutional rules and regulations on plagiarism	-.701		
I never attended any formal course conducted by the university or by the lecturer on plagiarism	.575		
I do not understand what constitutes plagiarism	.520		
Factor 2- Lack of competence		2.00	8.345
I find it easy to construct sentences in English	-.756		
I have poor research skills	.731		
I have difficulty in understanding articles in English	.695		
Factor 3- Institutional factors		1.79	7.450
My lecturer does not know the consequences of plagiarism	.856		
I think that the lecturer will not identify even if I plagiarize	.713		
I have found lecturers being reluctant to take action against students who commit plagiarism	.615		

Action taken by the university to punish students who are caught in plagiarism takes a long time/inefficient	.530		
Factor 4- Network facilities		1.59	6.643
I think that cutting and pasting from the Internet and word processing is much easier and faster	.745		
I feel it easier to plagiarize because the type of academic assessment given is similar	.741		
Factor 5- Pressure		1.37	5.707
I have too many subjects in one particular semester	.840		
I feel pressure to complete many assignments during a given time period	.719		
Factor 6- Lack of resources		1.26	5.267
I want to learn on citing sources	.679		
I see the need for knowledge in the future	.595		
Factor 7- Personal attitude		1.21	5.025
I do not see plagiarism as a problem	.828		
Cumulative variance explained (per cent)			
Factor 8- Digital information		1.01	
I find that there is too much information available in electronic format especially from web sites	.516		4.228

Most of the results arising from above factors in this study correspond with those proposed by Smith et al., 2007. These eight factors all together explain a considerable percentage of variance (61.23% in Table 4.3) of the plagiarizing process.

Following sections will interpret the factors identified for plagiarizing.

Lack of awareness

This factor proposes that the research students in the UoM do not have a complete understanding about plagiarism and the institutional policies on plagiarism. Moreover, they have not attended any program in this regard. Therefore, this may be a major reason to plagiarize. However, lack of awareness significantly differs as student category (p -value=0.023<0.05). Mean ranks of the Kruskal-Wallis test further revealed that the difference is mostly affected by the final year students. A highest percentage of the variance furnished by this factor is shown in the Table 4.4. Therefore, the lack of awareness is the most considerable factor in plagiarizing which has been similarly identified by many authors.

Lack of competence

This factor describes the difficulties faced by students with low skills in understanding

facts and writing in English. Those difficulties may further be followed by poor research skills too. Therefore, this may encourage the research students to plagiarize.

Institutional factors

Institution-specific attributes may be a reason for plagiarism at universities. Attitudes of institution – specific lecturers, their understanding about plagiarism may cause occurrence of plagiarism.

Network facilities

The Internet provides opportunities for students to download information needed for their assignments or reports or theses. A vast array of information flows through Internet and sometimes provides same types of assignments, complete researches etc. with the provision for anyone to download. Then the students download information and submit it as their own. This situation easily promotes the growth of plagiarism.

Pressure

Because of the course unit method with the semester examinations, students are always under pressure to complete a substantial number of assignments within a limited time period. With this pressure students are compelled to resort to plagiarism. Pressure shows a significant difference among the student categories. The relevant p-value is 0.001 which is less than 0.05. The mean ranks of the Kruskal-Wallis test indicates that this pressure is higher for final year students and that leads them to plagiarize.

Lack of resources

Sometimes, students may be in doubt what plagiarism is. In such situations, Sometimes, students lack of knowledgeable persons, courses to attend for future knowledge might lead them to plagiarize.

Personal attitude

This factor tends on the negative attitudes of students towards work completion. They don't make much effort to complete their assignments due to lack of interest and laziness. Therefore students may find it easier to complete their assignments by plagiarizing.

Digital information

Due to availability of vast amounts of digital information, students get tremendous opportunities to copy and paste easily unlike earlier. This type of information is easy to access through Internet. This situation has simplified the process of plagiarism.

Conclusion and recommendations

This study explores plagiarism among the research students in the University of Moratuwa. Study confirms that plagiarism is considerable at the university. That is because most of the students (74%) were in a young age group (21-30) and majority (88.89%) use e-journals and e-books for their research practices. Young students should be taught not to indulge in malpractices. Heavy use of digital information always spreads plagiarism. The other issue the results revealed is that though the majority of the respondents (92.4%) stated that they are aware of plagiarism, lack of full awareness has become a major reason to plagiarize.

Based on the principle component analysis, it was found that eight factors may affect plagiarism. They are: the lack of awareness; lack of competence; institutional factors; easy availability of network facilities; pressure; lack of resources; personal attitude and easy access to digital information. Lack of awareness was the decisive factor for plagiarizing and therefore it is recommended that students be made fully aware of what plagiarism is and the consequences of plagiarizing through programs and workshops, preferably conducted by the relevant Faculty of the University of Moratuwa, the University itself, or its Library. Since the problem of plagiarism must surely be relevant in other universities too, the awareness/training seminars would target a wider audience if conducted by an organization of combined universities.

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