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Exploring Awareness and Attitude on Plagiarism among Research Scholars: A Case Study of Panjab University, Chandigarh (India)

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Abstract

The purpose of the study is to explore the awareness and attitude on plagiarism among research scholars of Panjab University, Chandigarh (India). A structured questionnaire was designed and distributed among research scholars from various academic disciplines at Panjab University, Chandigarh (India). The survey examines level of awareness and attitudes of respondents on various aspects of plagiarism based on a five point Likert Scale. A total of 152 valid questionnaires were analysed with the help of Excel and SPSS. Results of the study revealed that research scholars were aware about plagiarism issues in academia. "Cut copy paste of text" was top ranked awareness statement with 4.2 ± 1.28 as Mean $\pm$ SD value whereas, the lowest awareness (3.42 ± 1.33) was observed with regards to the statement "Collusion is helping someone else to plagiarise". Overall, the poor attitude was observed among the respondents. Accurate referencing, plagiarism checking before submission of paper or thesis and discussion with guide and fellow researchers were found the top most steps which can be helpful to research scholars in diminishing plagiarism. The survey findings will certainly help university authorities to work out a strong action plan and its implementation to combat prevalent academic plagiarism and related issues.

Key Words: Plagiarism, Awareness, Attitude, Research Scholars, Panjab University, Chandigarh, India

1. Introduction

Plagiarism occurrence in academic research is a severe problem and one of the key challenges for higher academic institutions especially in developing countries, where students do not have much exposure to principles of scholarly conduct and thus resulted in to lack of academic ethics and poor writing skills in them (Park 2003; Babalola 2012; Ibegbulam and Eze 2015).

Advancement in Information and Communication Technologies (ICT) and digital revolution together has transformed the availability and accessibility of information. A huge amount of information is easily available on internet in different formats, thus the risk of stealing of the information is increasing day by day in academic field (Ison 2012; Onuoha and Ikonne 2013; Ibegbulam and Eze 2015; Jereb et al. 2018). In academic institutions, academic dishonesty exists due to varied reasons. Inadequate knowledge on plagiarism as a subject is one of the important reasons which cause incident of plagiarism in academic research (Park 2003; Dawson and Overfield 2006). Therefore, academic dishonesty is the main growing concern for almost all higher educational institutions and regulatory bodies. Quality of research is very crucial for any university or research institution in order to secure good ranking among global peers. Research quality directly impacts the reputation of academic and research institutions. Academic research output and its quality becomes a notion and have attracted the attention of institutions, funding bodies, ranking agencies and governments. Plagiarism causes a threat to original research work and has grown as a gigantic problem in the academia. In universities, research scholars are considered as the generator of novel ideas and productive research carried by them is one of the major valuable assets to a higher educational institution and ultimately contribute towards nation's development. Consequently, they must have awareness and understanding of Plagiarism and related issues. There is no doubt that academic dishonesty is a moral and ethical issue but lack of knowledge and awareness also constitutes plagiarism. To this end this study has been undertaken to explore the awareness and attitude on various aspects of plagiarism among doctoral students of Panjab University, Chandigarh (India).

1.1 Plagiarism
Plagiarism is an act of research misconduct as it involves stealing of intellectual property of someone else. The prevalence of plagiarism in academic and research domain is not recent but exists from centuries. The word plagiarism has been derived from Latin word 'plagiarius', which means kidnapping, seducing or plundering (Plagiarism 2019a). According to Cambridge Online Dictionary, plagiarism is "the process or practice of using another person's ideas or work and pretending that it is your own" (Plagiarism 2019b). Therefore, plagiarism is the act of copying the ideas, sentences, words or part of someone else's research work without giving proper credit to original work. The Committee on Publication Ethics (COPE), a non-profit organisation of United Kingdom has also given definition of plagiarism as ''Plagiarism ranges from the unreferenced use of others' published and unpublished ideas including research grant applications to submission under new authorship of a complex paper, sometimes in a different language. It may occur at any stage of planning, research, writing or publication; it applies to print and electronic versions''. In other words, the act of claiming someone else's work as your own work is known as plagiarism. There are different forms of plagiarism such as copying of ideas, copying of words, sentences and paragraphs, paraphrasing, inappropriate citation, self-plagiarism, collusion etc.

2. Review of Related Literature
Researchers have carried out several studies in different institutions across the world to ascertain various aspects of plagiarism or academic dishonesty. However, no efforts have been made so far to explore awareness and attitude on plagiarism among research scholars of Panjab University, Chandigarh (India). This paper presents a brief review of the literature with a specific focus on the studies relevant to university students' understanding of plagiarism.

Park (2003) reviews the literature on plagiarism and concluded that plagiarism by university students is common and there are several reasons namely increased access to digital sources, lack of understanding of plagiarism, to secure better score, to save time, negative attitude towards assignments, little or no punishment if they plagiarise, lack of academic writing skills, poor referencing skills etc. Singh (2017) also found incident of plagiarism among students of Guru Angad Dev Veterinary & Animal Sciences University (GADVASU), Ludhiana (India). In a survey, Buckley et al. (2008) also found a lack of clear-cut understanding among students towards plagiarism. Ryan et al. (2009) measured the perception of students on plagiarism and academic honesty. The results of the study revealed the high rate of plagiarism among the respondents. Hosny and Fatima (2014) examined attitude of students towards cheating and plagiarism among female students at King Saud University and found cheating and plagiarism were common among student although majority of students understand the meaning of plagiarism. Gilomore et al. (2010) assessed research proposals submitted by graduate students at three universities in USA and found almost 40 per cent of the total proposals involved notable plagiarism including copy of text from websites and journals. Cheema et al. (2011) examined the plagiarism awareness of Ph.D. and M.Phil. students on plagiarism and observed that most of the respondents were aware about the concept of plagiarism. However, respondents were not fully aware about the types and penalties of plagiarism. Babalola (2012) determined awareness and incidence of plagiarism among students and revealed a significant positive relationship between levels of awareness and plagiarism. Ramzan et al. (2012) found the low level of awareness with regards to plagiarism, processes and policies amongst graduate and postgraduate students of selected public and private sector universities in Pakistan. Vanbaelen and Harrison (2013) investigated attitudes and awareness of students towards plagiarism in Japanese universities and found that majority of students were aware of the rules regarding citations and referencing but uncertain about rules and punishments of plagiarism. Kumari and Lakshmi (2015) studied awareness on plagiarism and related aspects among research scholars of Sri Venkateswara University, Tirupati (India). Findings of the study revealed that respondents were well aware about the plagiarism and related aspects viz. general plagiarism types, citation style, punishments, anti-plagiarism software tools etc. Kumar and Mohindra (2018) examined plagiarism awareness level of law research scholars at Panjab University, Chandigarh and found good conceptual awareness on plagiarism among them. Conversely, respondents were not much familiar with various forms of plagiarism. Ibegbulam and Eze (2015) examined perception and attitude of Nigerian students to plagiarism and found lack of writing skills among them. Authors also highlighted "fear of being scored poorly, awareness that other students were doing it, the opportunities for copying offered by the Internet, and the absence of punishment for plagiarism-related offences" as major reasons behind occurrence of plagiarism. Ison (2015) identified the level of plagiarism by examining 384 doctoral dissertations published by US and Canadian universities using Turnitin, a text matching and plagiarism detector software and found more than half of all analyzed dissertations comprise indication of plagiarism but internet has a no impact on occurrence of plagiarism. Newton (2016 explored the attitudes, ability and confidence of newly enrolled undergraduates at a university in the United Kingdom with the help of questionnaire-based methodology. It was observed that undergraduates were confident in their understanding of plagiarism, though not adequately performed on knowledge with regards to referencing. Confidence, performance and recommended penalties were found positively correlated. Furthermore, new postgraduates were more confident and performed better in the simple tests of referencing when compared to new undergraduates. Jereb et al. (2018) explored

factors influencing plagiarism among German and Slovene students and revealed that ICT and the internet have a significant impact on plagiarism.

Revie of numerous studies revealed incident of plagiarism by students in academic institutions. Furthermore, the lack of awareness and poor academic skills also causes plagiarism among students and research scholars.

3. Objectives

This study aims at knowing the understanding of plagiarism among research scholars of various departments at Panjab University, Chandigarh (India). The specific objectives were:

- To examine the level of awareness among university research scholars on various issues of plagiarism;
- To know the attitudes of university research scholars towards plagiarism;
- To identify steps helpful for researchers to combat plagiarism and
- To recommend remedial measures

4. Brief Profile of Panjab University, Chandigarh (India)

The Panjab University (PU) was established in 1882 at Lahore and one of the oldest Universities in India. The university was finally re-located to Chandigarh during 1958-60. It has 73 teaching and research departments on the main campus located at Chandigarh, 189 affiliated colleges spread over Punjab and Chandigarh besides regional centres at Muktsar, Ludhiana, Hoshiarpur and Kauni. It has a long tradition of pursuing excellence in teaching and research in major faculties viz. science and technology, humanities, social sciences, performing arts and sports. The University supports excellence and innovation in academic programmes, promotes excellence in research, scholarship and teaching. Panjab University is actively engaged in collaborative research projects with various institutions at national and international level. The central library of the university, officially known as "A.C. Joshi Library" is equipped with modern facilities and resources (both print and electronic). (http://puchd.ac.in/pu-profile.php)

5. Research Methodology

A well-structured questionnaire was designed to collect data from the respondents. A total of 200 questionnaires were randomly distributed among registered research scholars in the various departments categorized under four major faculties of Panjab University, Chandigarh over a period of two weeks during month of January, 2019. A five point Likert Scale from 1 to 5 (1 representing 'strongly disagree' and 5 representing 'strongly agree') was used to assess level of awareness and attitude towards plagiarism. After eliminating six incomplete questionnaires, finally 152 (76 per cent) completely filled valid questionnaires in total were analyzed with the help of Excel and SPSS. The data presented in the forms of tables & figures using percentage, mean and standard deviation.

6. Data Analysis
Table 1. Demographic features of the respondents

Demography	Status	Frequency	%
Gender	Males	66	43.42
	Females	86	56.58
Age (in years)	< 25 Yrs.	12	7.90
	25-30 Yrs.	73	48.02
	30-35 Yrs.	48	31.58
	> 35 Yrs.	19	12.5
Research experience (in years)	Less than one	08	5.26
	One	12	7.90
	Two	25	16.45
	Three	34	22.37
	Four	42	27.63
	Five	21	13.81
	More than five	10	6.58
Faculty wise categorization of respondents	Arts & Humanities	32	21.05
	Social Sciences	38	25.00
	Sciences	43	28.29
	Education, Management & Laws	39	25.66
	Total	**152**	**100%**

Table 1 shows the demographic features of the respondents. Out of the total 152 valid respondents, 66 (43.42 %) were males and 86 (56.58 %) were females. Majority of research scholars 73 (48.02 %) were from 25-30 Years age group, followed by 48 (31.58 %) of 30-35 years and 19 (12.5 %) were belonged to above 35 years age group. Exactly half of the respondents (76; 50 %) reported having 3-4 years research experience and 31 (20.4 %) research scholars reported having five or more than five year research experience during Ph.D. The respondents from various departments were classified under four broad faculties viz. Arts & Humanities, Social Sciences, Sciences and Education, Management & Laws.

Table 2. Understanding the conceptual meaning of the term Plagiarism

Statement	Yes	No	Total
Do you understand the conceptual meaning of the term Plagiarism?	148 (97.37 %)	4 (2.63 %)	152

Table 2 depicts that almost all research scholars (97.38 %) knows the conceptual meaning of the term 'Plagiarism'.

Table 3. First time Acquaintance with the term Plagiarism

When you come to know the term Plagiarism first time?	Frequency	%
During Ph.D	89	58.55
During Master's Course	46	30.26
During Bachelor's degree	13	8.55
During this survey	4	2.63
Total	152	100

Table 3 shows that more than 58 % of the respondents come to know about plagiarism   first time during their doctoral research while, 30.26 % of the respondents come to know about the term plagiarism for the first time during their Master's degree. Only 8 % of the respondents knew about the concept of plagiarism when studying their bachelor's degree. It can be concluded that very few university research scholars come to know about plagiarism during   their bachelors and masters.
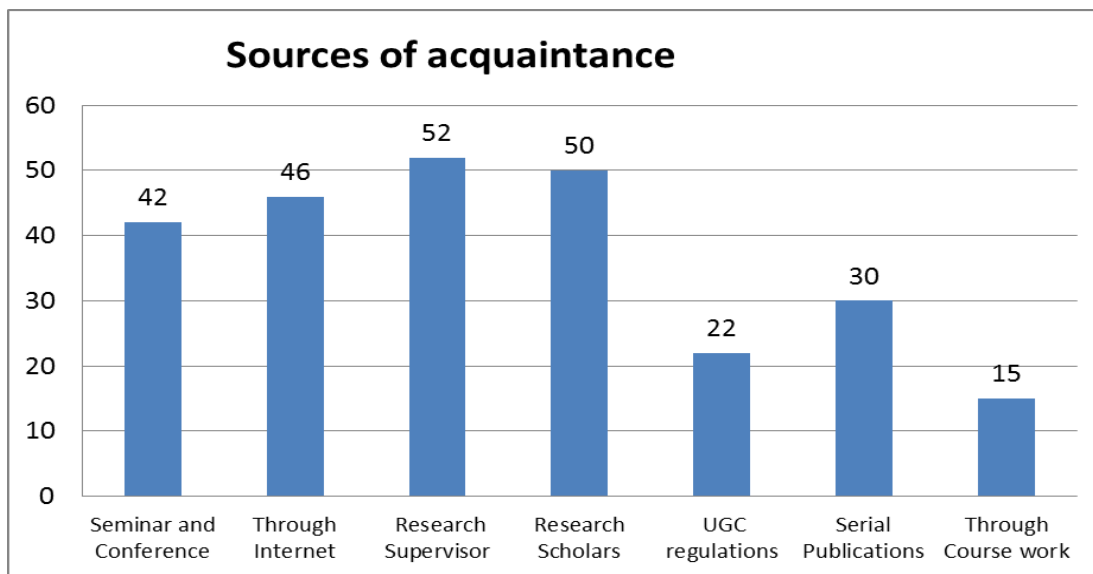

Figure 1. Sources of acquaintance with plagiarism

Figure 1 shows that research scholars come to know about the 'Plagiarism' either through research supervisor or from other fellow researchers followed by other sources like internet, seminar and conferences etc.

Table 4. Citation Style used while giving references

Citation Style	Frequency	%
APA	95	62.5
MLA	8	5.26
Chicago	6	3.95

Harvard	13	8.55
Other	30	19.74

Majority of the research scholars using APA (62.5 %) citation style while giving references in research paper writing or thesis writing as shown in Table 4. Adoption of the citation style will depend upon style followed by a particular faculty and specific referencing style of the journal where they want to publish their research.

Table 5. Use of reference management software (RMS)

Reference Management Software (RMS)	Frequency	%
Mendeley	42	28
Zotero	6	4
End Note	37	24
BibTex	17	11
Do not use	50	33

Table 5 shows that use of reference management software (RMS) is prevalent among research scholars of Panjab University as 67 % of respondents collectively indicated that they use one or the other software for managing references while 33% don't use RMS at all.

Table 6. Number of publications

No. of Publications	Frequency of Respondents	%
0	67	44.08
1	32	21.05
2	22	14.47
3	11	7.24
4	6	3.95
5	8	5.26
6	4	2.63
8	1	0.66
>10	1	0.66

The number of articles published by research scholars in journals and conference proceedings is shown in Table 6. Out of total 152 research scholars, more than 44 % of the research scholars had not even published a single article during Ph.D. so far. Approximately 56 % of research scholars had published at least one publication either in journals or in conference proceedings. The main reason behind this may be that in the initial 2-3 years of doctoral degree, research scholars are busy in finalization of their research synopsis. Another probable reason may be the lack of academic writing skills among them.

Table 7. Internet Usage

Extent of use	Frequency	%
Very Frequently	83	55
Frequently	52	34
Occasionally	12	8
Rarely	5	3
Total	152	100.0

Table 7 depicts that majority of respondents (55 %) are using Internet very frequently for research paper writing or thesis writing. In other words, they are highly dependent on web resources for their research work.

Table 8. Level of Awareness about Plagiarism

Statement	Mean ± SD	Rank
Cut copy paste of text	4.2 ± 1.28	1
Getting research work completed by hiring a person and claiming it as their own work	4.1 ± 1.41	2
Use of others' work without acknowledgment	3.92 ± 1.57	3
Copying from the internet and not giving the source	3.89 ± 1.39	4
Using dataset or text of previously published work of your own without citing it (Self Plagiarism)	3.79 ± 1.24	5
Copy of idea or theory without giving credit to source document	3.76 ± 1.39	6
Paraphrasing the words of someone else without citing the original source	3.75 ± 1.36	7
Copying exact words without quotation Marks	3.72 ± 1.58	8
Using a table, figure or an illustration needs to cite the source	3.63 ± 1.12	9
Copying words from several sources and change the sentences	3.61 ± 1.20	10
Collusion is helping someone else to plagiarize	3.42 ± 1.33	11

Table 8 represents the level of awareness of plagiarism in descending order by mean score among research scholars of Panjab University, Chandigarh. High Level of awareness was found on all items as each item secured more than 3 (average awareness level). Awareness on the item "Cut copy paste of text" was top ranked followed by, "Getting research work completed by hiring a person and claiming it as their own work", "Use of others' work without acknowledgment" with Mean ± SD values as 4.2 ± 1.28, 4.1 ± 1.41, 3.92 ± 1.57 respectively, whereas the lowest awareness (3.42 ± 1.33) was observed with regards to the item "Collusion is helping someone else to plagiarise".

Table 9. Attitude towards Plagiarism

Statement	Mean ± SD	Rank
Committing plagiarism is against my academic ethics	3.19 ± 1.35	1
Fear of being failed to meet the requirement of publications during research	2.76 ± 1.31	2
Easy availability of content on web leads to commit plagiarism	2.31 ± 1.17	3
Deadlines to submit thesis pressurized me	2.3 ± 1.07	4
No one will check and detect the copied material	2.21 ± 1.20	5
No severe punishment, if someone plagiarised	2.18 ± 1.02	6
Inadequate understanding of the research topic compel me to plagiarise	2.13 ± 106	7
Genuine research consume a lot of time, constrain me to plagiarise	1.97 ± 1.07	8
Lack of academic writing skills leads to commit plagiarism	1.95 ± 1.01	9
Other scholars are getting thesis writing done by paying, also influenced me	1.90 ± 1.14	10
Many research scholars copy other's work, I am also following the same	1.84 ± 1.22	11

Attitude of research scholars towards plagiarism was assessed based on 11 statements as shown in Table 9. Low mean score was observed on attitudinal questions. "Committing plagiarism is against my academic ethics" secured top position (3.19 ± 1.35) resulted in to good attitude while, the statement "Many research scholars copy other's work, I am also following the same" observed the lowest mean score (1.84 ± 1.22) resulted in to poor attitude on this item. It can be inferred that research scholars have poor attitudes on several items especially on items ranked 8, 9, 10 and 11 (mean < 2).

Table 10. Steps helpful in avoiding plagiarism

Statement	Mean	Rank
Accurate referencing is essential to avoid plagiarism	4.59 ± .624	1
Check plagiarism before submission of research paper / thesis	4.57 ± .785	2
Discussing with guide and other scholars	4.56 ± .574	3
Improve my academic writing skills	4.50 ± .667	4
Use of quotes while using exact words	4.46 ± .695	5
Develop my own ideas	4.1 ± 1.29	6

According to the respondents, accurate referencing, plagiarism checking before submission of paper or thesis and discussion with guide and other scholars were the top three measures with the help of which plagiarism can be diminished as shown in Table 10. The item 'Develop my own ideas' was reported the lowest mean score (4.1±1.29) and hence ranked last among all 6 items.

Table 11. Access to Plagiarism Checker Software

Statement	Yes	No	Not Sure	Total
Do you have plagiarism checker software facility in your department?	112 (73.68%)	28 (18.42%)	12 (7.9%)	152 (100%)

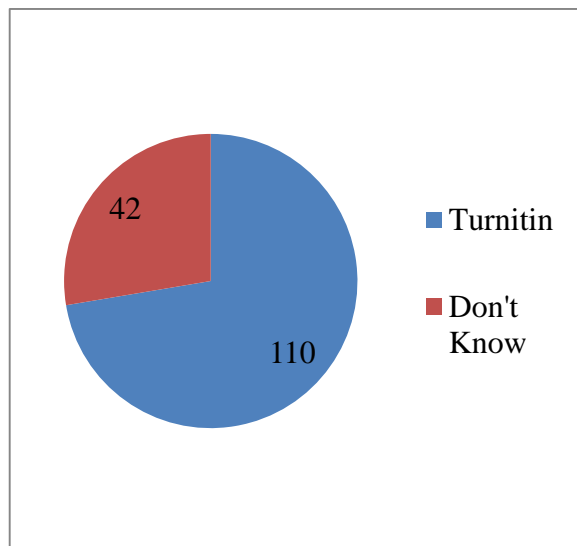|				
Do you have individual access to Plagiarism Checker Software?	6 (3.94%)	122 (80.26%)	24 (15.8%)	152 (100%)
Do you able to understand the originality report generated by Turnitin?	52 (34.21%)	80 (52.63%)	20 (13.16%)	152 (100%)

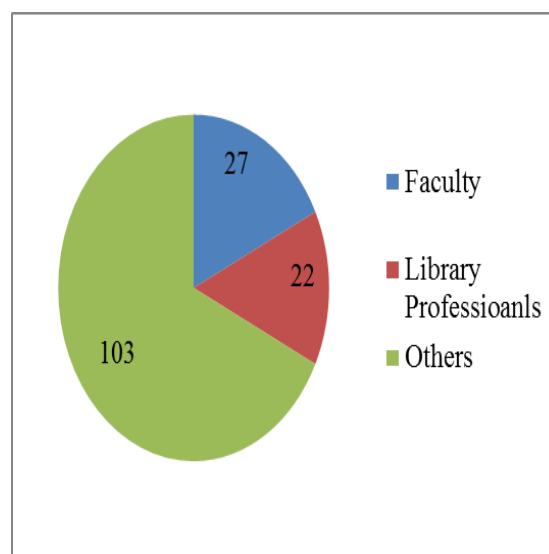**Figure 2. Software used to check text similarity**

Figure 3. Authorized instructor for upload of your research paper or thesis and provides you the detailed text similarity report

More than 73 % of the research scholars indicated that plagiarism checker facility is provided to them in their respective departments through Faculty, library professionals or other authorized instructors as evident from Table 11 and Figure 3. However, more than 80 % research scholars do not have individual access to plagiarism checker software as evident from Table 11. As per Figure 2, majority of the research scholars 110 (72.37 %) were familiar about 'turnitin', the anti-plagiarism software used by Panjab University, Chandigarh to detect text similarity. On the other hand, 42 (27.63 %) respondents were not aware about the 'turnitin' software. Further, it can be noted from table X, that more than half (52.63 %) of the respondents do not understand detailed plagiarism report generated by turnitin software.

Table 12. Penalties and University Policy on academic integrity

Statement	Yes	No
University policy adequately addressed the issue of academic integrity	72 (47.37%)	80 (52.63%)
Penalties for breaches of academic integrity are clearly stated on university website	34 (22.37%)	118 (77.63%)
Familiarity with the penalties for the act of plagiarism under UGC regulations, 2018	92 (60.52%)	60 (39.48%)

It is evident from Table 12 that more than half of the respondents (52.63 %) were of the opinion that university adequately addressed issue of academic integrity whereas, 72 (47.37 %) respondents indicated that university do not adequately addressed issue of academic integrity. Respondents were divided on this statement. A large majority 118 (77.63 %) of the respondents indicated that penalties for breaches of academic integrity are not clearly stated on the university website. Table XI also depicts that majority (60.52 %) of the respondents were familiar about the provision of penalties for different levels of plagiarism as prescribed by the University Grant Commission (UGC) under 'Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions Regulations, 2018'.

7. Findings

On the basis of analysis of data, the findings of the study can be summarized as follows:

1. The finding of the study reveals that research scholars are aware of meaning of plagiarism and related issues.
2. Most of the research scholars come to know about the concept plagiarism during Masters or doctoral degree through research supervisor, fellow researchers, internet etc. It was also noted that research scholars are using APA citation style while giving references in their research work.
3. Use and awareness towards reference management software (RMS) was found remarkable among research scholars as 67 % of the aggregate respondents indicated that they are using one or the other software for managing references.
4. The survey participants were lacking in research publications as more than 44 % of them had not published even a single article. This situation arises may be either due to lack of academic writing skills among them or they are busy in finalization of their synopsis in the initial 2-3 years of doctoral degree.
5. Frequent use of internet was observed among respondents and most of them are highly dependent on web resources for their research work.
6. The level of awareness was measured among respondents on different statements of plagiarism through Mean ± SD and noted high level of awareness on all items Awareness on the item "Cut copy paste of text" was top ranked followed by, "Getting research work completed by hiring a person and claiming it as their own work", "Use of others' work without acknowledgment" with Mean ± SD values as 4.2 ± 1.28, 4.1 ± 1.41, 3.92 ± 1.57 respectively, whereas the lowest awareness (3.42 ± 1.33) was observed with regards to the item "Collusion is helping someone else to plagiarise".
7. Attitude of the respondents on plagiarism items was reported poor. The statement "Committing plagiarism is against my academic ethics" ranked top (3.19 ± 1.35) while, the statement "Many research scholars copy other's work, I am also following the same" got the lowest mean score (1.84 ± 1.22).
8. According to research scholars, 'accurate referencing', 'plagiarism checking before submission of paper or thesis' and 'discussion with guide and fellow researchers' were the top three steps which are helpful in diminishing plagiarism.
9. Plagiarism checker software facility to the respondents is available in their respective departments but they do not have individual access. Faculty members, library professionals and other authorized instructors provide uploading facility and report generation through their own account login.

10. Majority of the university research scholars (72.37 %) were also aware about turnitin, the software used for checking content similarity.
11. The respondents were familiar about the provision of penalties for different levels of plagiarism as prescribed by the University Grant Commission (UGC).

8. Conclusion and recommendations

Based on findings of the study, following recommendations can be proposed which in turn will be of great importance for university administrators to check and diminish academic dishonesty among doctoral students. University authorities should organize training and workshops for research scholars on various theme namely how to develop academic writing skills, how to avoid different types of plagiarism, how to use plagiarism detector software, how to interpret report generated by plagiarism detector software etc. A separate instruction module on issues related to academic dishonesty and plagiarism should be included in the curriculum at bachelor or master level so that better learning opportunity on this problem could be provided to students at early stage. The intensive instruction module can be included in the coursework of doctoral research for depth understanding about the topic of academic ethics, plagiarism and should taught corrective measures to control over this serious disease in academic arena. It is also recommended that university should develop clear-cut policies and guidelines to prevent plagiarism and all information pertaining to plagiarism policies and penalties should be accessible and visible to academic community in university through website.

References :

Babalola, Y.T., (2012), "Awareness and incidence of plagiarism among undergraduates in a Nigerian private university", *African Journal of Library, Archives and Information Science*, Vol. 22 No. 1, pp. 53-61.

Buckley, C., Picking, R. and Grout, V. (2008), "Internet plagiarism: a survey and case study", *Proceedings of the Fourth Collaborative Research Symposium on Security, E-learning, Internet and Networking (SEIN 2008), Glyndwr University, Wrexham,* 5-9 November, pp. 56-65, available at: http://collections.crest.ac.uk/158/1/fulltext.pdf (accessed 13 March 2019).

Cheema, Z.A., Mahmood, S.T., Mahmood, A. and Shah, M.A. (2011), "Conceptual awareness of research scholars about plagiarism at higher education level: intellectual property right and patent", *International Journal of Academic Research*, Vol. 3 No. 1, pp. 665-670.

Committee on Publication Ethics (COPE). (2019), "Guidelines on good publication practice", available at: https://publicationethics.org/files/u7141/1999pdf13.pdf (accessed 31 March 2019).

Dawson, M. M., and Overfield, J. A. (2006), "Plagiarism: Do students know what it is?" *Bioscience Education*, Vol. 8 No. 1, pp.1-15.

Gilmore, J., Strickland, D., Timmerman, B., Maher, M., and Feldon, D. (2010), "Weeds in the flower garden: an exploration of plagiarism in graduate students' research proposals and its connection to enculturation, ESL, and contextual factors", *International Journal for Educational Integrity*, Vol. 6 No. 1, pp.13-28.

Hosny, M., and Fatima, S. (2014), "Attitude of students towards cheating and plagiarism: University case study", *Journal of Applied Sciences*, Vol. 14 No. 8, pp.748-757.

Ibegbulam, I.J. and Eze, J.U. (2015), "Knowledge, perception and attitude of Nigerian students to plagiarism: a case study", *IFLA journal*, Vol. 41 No. 2, pp.120-128.

Ison, D.C. (2012), "Plagiarism among dissertations: prevalence at online institutions", *Journal of Academic Ethics*, Vol. 10 No. 3, pp. 227-236.

Ison, D.C. (2015), "The influence of the internet on plagiarism among doctoral dissertations: an empirical study', *Journal of Academic Ethics*, Vol.13 No. 2, pp.151-166.

Jereb, E., Perc, M., Lämmlein, B., Jerebic, J., Urh, M., Podbregar, I., and Šprajc, P. (2018), "Factors influencing plagiarism in higher education: a comparison of German and Slovene students". *PloS one*, Vol.13 No.8, e0202252, available at: https://doi.org/10.1371/journal.pone.0202252 (accessed 13 March 2019).

Kumar, A. and Mohindra, R. (2018), "Conceptual awareness and attitude of law research scholars towards plagiarism: a study of Panjab University, Chandigarh", *In Proceedings of the International Conference on Digital Transformation (ICDT 2018)*, National Law University, Delhi, 29 November -01 December ,pp 712-26.

Kumari, M. P., & Lakshmi, S. (2015), "Awareness on plagiarism among research scholars of Sri Venkateswara University: a study", *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, Vol. 20 No. 3, pp.55-59.

Newton, P. (2016), "Academic integrity: a quantitative study of confidence and understanding in students at the start of their higher education." *Assessment & Evaluation in Higher Education, Vol. 41 No. 3, pp. 482-497.*

Onuoha, U. D., and Ikonne, C. N. (2013). Dealing with the plague of plagiarism in Nigeria. Journal of Education and Practice, Vol. 4 No. 11, pp.102-106.

 Panjab University, Chandigarh (2019), "Profile", available at: http://puchd.ac.in/pu-profile.php (accessed 11 March 2019).

Park, C. (2003). In other (people's) words: plagiarism by university students--literature and lessons. *Assessment & evaluation in higher education*, Vol. 28 No.5, pp. 471-488.

Plagiarism (2019a), "Online Etymology Dictionary", available at: https://www.dictionary.com/browse/plagiarism (accessed 12 January 2019).

Plagiarism (2019b), "Cambridge Online Dictionary", available at: https://dictionary.cambridge.org/dictionary/english/plagiarism (accessed 12 January 2019).

Ramzan, M., Munir, M. A., Siddique, N., and Asif, M. (2012), "Awareness about plagiarism amongst university students in Pakistan", *Higher education*, Vol 64 No.1, pp.73-84.

Ryan, G., Bonanno, H., Krass, I., Scouller, K. and Smith, L. (2009), "Undergraduate and postgraduate pharmacy students' perceptions of plagiarism and academic honesty", *American journal of pharmaceutical education*, Vol.73 No. 6, available at: www.ncbi.nlm.nih.gov/pmc/articles/PMC2769527/ (accessed 26 December 2018).

Singh, N. (2017). Level of awareness among veterinary students of GADVASU towards plagiarism: a case study. *The Electronic Library*, Vol. 35 No. 5, pp. 899-915, available at: https://doi.org/10.1108/EL-06-2016-0132 (accessed 26 November 2018).

UGC Regulations (2018), "Promotion of academic integrity and prevention of plagiarism in higher educational institutions regulations, 2018", available at: https://www.ugc.ac.in/pdfnews/7771545academic-integrity-Regulation2018.pdf (accessed 12 September 2018).

Vanbaelen, R., and Harrison, J. (2013), "Plagiarism awareness", *In International Professional Communication Conference (IPCC 2013)* IEEE International, Vancouver, BC, Canada, 15-17 July, pp. 1-8*,* available at: https://ieeexplore.ieee.org/document/6623925 (accessed 5 January 2019).