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CAUSES OF AND MEASURES TO REDUCE PLAGIARISM IN RESEARCH WORK AT POST GRADUATE LEVEL

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ABSTRACT

The study explored causes of plagiarism in research work and the remedial measures in the context of the Punjab, Pakistan. The participants of this study were students (research scholars) and research supervisors of public and private universities of Punjab. The data were collected from 146 research supervisors through a semi-structured interview schedule. Moreover, focus group discussions were arranged with 60 groups of MPhil/PhD students. Findings of the study revealed that commonly the students commit plagiarism due to several reasons that include: lethargic behaviour of students and the supervisors; being habitual of using shortcuts; poor research and academic writing skills; poor supervisory skills of research supervisors; investing insufficient time to research work due to job obligations; absence of any mechanism for developing academic writing and research skills. The study suggested that the university teachers and research supervisors should aware of the students during course work at the postgraduate level about plagiarism and its consequences. The checking of similarity of students' assignments through Turnitin should be made obligatory. Higher Education Commission of Pakistan and the universities should organise training, workshops, seminars, and orientation sessions for research students and supervisors highlighting plagiarism penalties, demerits and consequences of producing plagiarised research work.

INTRODUCTION

The concept of plagiarism is not a novel phenomenon. It is being practiced since the inception of the art of writing itself. This is a very complex concept and sometimes even vague as it varies in varied cultural context. Plagiarism is

generally known as the misuse of and the failure to acknowledge source materials (Arce Espinoza & Monge Nájera, 2015). The term plagiarism is derived from Latin '*Plagiarus*' meaning 'kidnapper'. It came into English in 1710. At that time the writing of an author – the product of the author – was regarded as the author's 'child'. In misappropriating an author's text, the offender was seen as kidnapper of the words and ideas of the originator. The nature of plagiarism has further undergone through metamorphoses in today's digital age (Jones & Sheridan, 2015). Now it is an unacknowledged written discourse by an author who is neither the originator nor the legitimate owner of it. It is commonly described as stealing others' ideas and presenting them as one's own thoughts. In modern day educational settings, it is prevalent in many forms (Haq, Mahmood, Shabbir, & Batool, 2020; Hopp & Speil, 2021).

Taking content from others' work without referencing is the most common form of plagiarism (Jones & Sheridan, 2015). Using alternative words, synonyms and changing the sequence of content is another one. Warn (2006) and Bretag and Mahmud (2009) have summarised various forms of plagiarism as: 1) intentional plagiarism— the researcher commits it knowingly; 2) unintentional plagiarism— the researcher commits it unknowingly; 3) incomplete citations— if a researcher gives references but with incomplete information of original author; 4) wrong citations/references— when a researcher uses secondary source of information but only cites the primary source of information; 5) rephrasing— the use of others' content with minor changes in the sentences and using it as one's own; 6) eliminating quotation marks— when a researcher copies from the text, as it is, without using quotation marks, and claims that it is his own work; 7) self-plagiarism— the researcher publishes his work from his own previously published material without acknowledging the previous source; 8) stealing concepts and notions— if a researcher uses others' ideas and presents them as his own; and 9) complete plagiarism— copying the manuscript of another researcher and submitting it with his own name is called complete plagiarism.

Plagiarism at academic institutions is an all-pervasive problem among academicians over the globe. Academic dishonesty by the students has also been recorded in the literature. The most common practices of plagiarism are copying, deceiving and cheating in exams and have always been present in the classrooms (Negre, Forgas, & Trobat, 2015). Increasing trend in plagiarism has been recorded among both the academicians and the students. According to Levine and Pazdernik (2018), it is 23-25% in 1940s, 59% in 1960s and 60-76% in 1990s. They further highlight that this increasing trend is getting severer in recent years because of readily available information on the internet or paper mills. Plagiarism is in fact a reflection of potential cheating behaviour someone may have. In Australia, on average 33% of students perceive cheating on assessment tasks as common practice. This trend is likely to prevail and is observable in any country of the world. For example, 70% and 60% of students (Goh, 2015) are found guilty of plagiarism in the United States and the United Kingdom respectively. In this context, plagiarism seems to be a serious issue for both the academicians and the students in higher education not only in developing and underdeveloped countries but also in the developed ones (Levine and Pazdernik, 2018).

There are numerous reasons for students' involvement in committing plagiarism such as lack of academic writing skills, inadequate vocabulary and language barriers. Commonly, these issues are found among the individuals originating from non-native English-speaking countries (Wasay & Siddiqui, 2015). Six key reasons of plagiarism are identified by Goh (2015) as: poor time management, fear for failure, personal/family problems, poor academic writing skills in English, lack of awareness about referencing and lack of awareness regarding plagiarism policy (Abbasi, Yoosefi-Lebni, Jalali, Ziapour, & Nouri, 2021; Javaid, Sultan, & Ehrich, 2020). According to Kayaoğlu et al. (2016) poor academic writing skills, lack of research culture, tendency to save time and effort, urge to use short cuts, job/employment of the students, communication gap between supervisor and supervisee, personal issues of students, little risk of being caught and provision of minor punishment for the culprit are also among the common reasons of students' involvement in plagiarism practices (Farahian, Parhamnia, & Avarzamani, 2020).

The act of plagiarism is seen as a serious threat to the academic quality. The academicians over the globe are striving to seize or at least reduce these malpractices. They sincerely feel that there is a dire need of collaborative efforts on the part of academic and non-academic actors in the system (Levine & Pazdernik, 2018). The researchers have brought forward various strategies to cope with the issue. Shakeel, Iffat, Quds, Tanveer, and Hassan (2013) proposed a four-tier strategy to minimize plagiarism: a) to develop and implement a policy for the identification and reduction of plagiarism; b) to educate students about the appropriate use and acknowledgment of intellectual material; c) to design approaches that support students' learning thereby minimizing the opportunity for students to put forward the plagiarized material; d) to develop and implement the procedures for monitoring and detecting cheating and other similar practices. In pursuance of these guidelines, the electronic detection methods are being increasingly used in order to resolve the problem of plagiarism. Specifically, the software program *Turnitin.com*® is being widely used and contributing a lot in detecting and consequently reducing plagiarism (Kayaoğlu et al., 2016).

Higher Education Commission of Pakistan (HEC) has developed its own policy on plagiarism for improving the quality of research work at higher education level. This policy explains the penalties for students and teachers if they commit plagiarism. The students who submit plagiarized may face the deduction of marks in a particular assignment and/or be awarded with failing grade in that course. In case of a severe type of plagiarism e.g., copying a complete article and submitting it as his own work, a student may be suspended or expelled, and any academic degrees or award may be revoked. Moreover, the student may be fined an amount as deemed appropriate and a notification of the plagiarism against the author(s) may be published in the print media or may be publicized on different websites. In case of any funded project the Higher Education Commission of Pakistan or the concerned university can exclude the person from that project for a certain period. The penalties for the teachers are categorized as minor, moderate and major penalties. Minor penalties are imposed if a particular teacher copies a few

paragraphs from others' work without any acknowledgment. These penalties include: a) warning; b) freezing of research grant/s; c) stoppage of promotion or annual increments of the lawbreaker for a specified period, and d) debarring the offender from sponsorship of research funding, travel grant, supervision of PhD students, fellowship or any other funded program. Moderate penalties are applied when some paragraphs having some key results are copied without citation. These are: a) demotion to the lower grade; b) the issuance of 'Black List' notification against the author(s). Major penalties are imposed where maximum part of any published work is copied, as it is, without giving its reference. In this case: a) the offender may be penalised with dismissal from the service along with; b) being declared as 'Black Listed' and may 'NOT' be eligible for employment in any academic/research organization. The notification of 'Black Listing' of the author(s) may be published in the print media or may be publicized on the webpages (HEC Plagiarism Policy). <http://hec.gov.pk/english/services/faculty/Documents/Plagiarism/Plagiarism%20Policy.pdf>

BACKGROUND OF THE STUDY

Quality and quantity of research output determines the rank and repute of a university. This situation puts extra pressure on faculty and students to produce more research, which, if coupled with lack of training, may result in indulgence in plagiarism. Plagiarism threatens educational quality and professional ethics worldwide. Plagiarism practices are being enormously facilitated by the proliferation of technology and the internet. Plagiarism, on the one hand, affects students' learning and, on the other hand, it is correlated with increased fraud and inefficiency on the job, thus lessening competitiveness and hampering development (Coughlin, 2015). Research integrity is core to the mission of higher education. Among undergraduate student samples, self-reported rates of data fabrication (making up data) and falsification (changing data) have been found troublingly high however it lacks systematic investigation (Doss et al., 2015).

Plagiarism continues to be a concern for all educational institutions, globally. Plagiarism is a serious academic misconduct and a common topic in higher education. So, to build a solid foundation for high academic standards and best practices at a graduate university, aspects of plagiarism are reviewed to develop better management processes for reducing plagiarism (Levine & Pazdernik, 2018). However, it is in the last few years, due in part to the development and expansion of the internet, that the phenomenon has taken on a new, greater, more worrying dimension. Some bibliometric indicators clearly show that interest in the issue has grown considerably in recent years (Negre et al., 2015). Although all academic disciplines suffer significant plagiarism practices, however, science, technology, engineering and mathematics may have somewhat higher rates than arts and humanities (Coughlin, 2015).

Plagiarism is emerging as a universal problem and increasing day-by-day in all the institutions at international level and likewise in Pakistan. In newspapers, social and print media and in HEC there are many reports on plagiarism of higher education institutions of Pakistan. There are enough reasons to believe that plagiarism within Pakistani higher education

institutions is commonplace rather than a rarity. A wide variation however exists on this matter among educational and administrative groups in Pakistan. Recent events in the Punjab University (PU) are a case in point. When it was determined that some PU teaching faculty had been involved in plagiarism, the PU Syndicate decided to let the offenders off with little more than a warning although HEC had recommended their dismissal. The Syndicate's action however led to an uproar prompting HEC to put a hold on PU grants, and the ensuing tussle reflected the divergence of opinions on this matter within academic circles. Moreover, with the recent cutback in Pakistan government's funding for HEC, and thus a curtailment of its grants giving powers, it remains to be seen whether its attempts to enforce strict action against plagiarists within universities in Pakistan can continue (Shirazi, Jafarey, & Moazam, 2010).

Higher Education Commission of Pakistan has made policies and plans to avoid plagiarism, provide proper directions, awareness and guidelines to the higher education institutions for detection of plagiarism. HEC has given the researchers access to *Turnitin* (plagiarism detection software) at all universities of Pakistan. It is general perception among faculty that the required results to end plagiarism from the Pakistani universities have not been achieved (Sarwar, Moin, & Jabeen, 2016). In this situation it is very important to know that what are the underlying reasons that urge students to commit plagiarism and what could be the possible measures that may help reduce this unethical practice.

Objectives of the Study

The objectives of the study were to:

1. find out the causes of plagiarism in research work of universities.
2. suggest measures for reducing plagiarism in research work of universities.

RESEARCH METHODOLOGY

Research Design of the Study

This research envisions exploring the causes of plagiarism in MPhil/PhD research work and measures to reduce it. This was done through the perception of supervisors and the students from public and private sector universities of the Punjab. For this purpose, qualitative research approach was employed (Creswell, Klassen, Plano Clark, & Smith, 2011; Creswell, Plano Clark, Gutmann, & Hanson, 2003; Greene, 2007, 2008; Tashakkori & Creswell, 2007; Teddlie & Tashakkori, 2009). Qualitative research method has been widely used to attain deeper understanding of the phenomenon (causes of plagiarism in research work and measures to reduce it) through the lens of informants' views (supervisors and the students in this case) (Atieno, 2009; Cohen, Manion, & Morrison, 2011; Harry & Lipsky, 2014; Rahman, Kwong, Davey, & Qiao, 2016).

Respondents of the Study

The respondents of the study include supervisors and MPhil/PhD students. The supervisors were the teachers who supervised MPhil/PhD students (only those who have finished their research work or working on it). Firstly, the researchers randomly selected four public and four private universities from the Punjab (Two universities from central, one from southern and one from northern part of the province are included in the sample separately for private and public sector). Secondly, four departments from each selected university were chosen conveniently considering the representation of all major disciplines. Department of English (Faculty of Arts), Department of Chemistry (Faculty of Sciences), Department of Education (Faculty of Social Sciences) and Department of Business and Administrative Sciences (Faculty of Management Sciences). All available supervisors and MPhil/PhD students were purposively taken as respondents of the study. Total sample size of the study included 146 supervisors (for interview) and 60 groups of students (for FGDs).

Research Tools of the Study

Two research instruments were used to collect the views of the informants: an interview schedule for the supervisors (containing 13 questions) and; a focus group discussion (FGD) guidelines for the students (containing 13 questions)

Collection and Analysis of Data

The semi-structured interview schedule was used to collect the data from the supervisors. The interviews were taped and transcribed for subsequent analysis. Focus group discussion guidelines were used for getting perceptions of the students. All the focus group discussions were conducted on accidental basis, for example, by visiting library, cafeteria, labs and play grounds. Wherever, the researchers found the target respondents, they immediately managed to meet them, sought their permission and conducted focus group discussion. The data were analysed through thematic analysis technique including following steps: familiarizing with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report (Braun and Clarke, 2006).

RESULTS OF THE STUDY

Table 1: Results of the Interview with Supervisors

Indicators	Causes	Measures
Willingness of Scholars	Habit of shortcut in thesis completion.	students should be given thesis completion time properly.
	Unduly saving resources and efforts	students should utilize resources and efforts properly.
	Lack of interest in research	students' interest should be enhanced through guidance.

	Sluggish attitude of both the supervisors and the students	Sluggish attitude of both students and supervisors should be improved.
	Job obligations, the students give less time to research	students should prefer research work as compare to job.
Skillfulness of Scholars	Very poor English reading and writing ability.	Weak students' English grammar classes may be arranged prior dissertation writing.
	Lack of research skill	Research skills may be enhanced through research classes.
Support	Shallow research culture.	Research culture should be developed in the universities.
	Lack of awareness of future consequences	Awareness regarding future consequences may be conveyed to student prior writing thesis.

Causes of Plagiarism

Research supervisors highlighted different reasons behind the involvement of students in plagiarism activities. According to the majority of the research supervisors ($N=93$, 64%) the most of the students committed plagiarism due to their indolent attitude. They thought that submitting plagiarized work was a short cut for thesis completion. They used it as a tool for getting degree in a shorter period of time. Stress of meeting the deadline for thesis submission was another cause of producing plagiarised work by students.

Talking about the causes of plagiarism, a 37 years old female lecturer from a private university told that:

"Students simply look for short cuts for theses completion. They want to complete their degree in a shorter time. So, they copy material from an online source and paste it in their own manuscripts".

A male assistant professor of 45 from a public university described, waving his hands in anger, that:

"Oops! students do not want to work hard... and due to their laziness when prescribed time limit is almost over, they find plagiarism an easy way to meet the deadline".

A male assistant professor, from a private university expressed:

"Poor research and academic writing skills of students are the fundamental causes of committing plagiarism. Moreover, they have poor reading habits which hinder their comprehension of relevant literature...consequently they find no easy way than to produce plagiarized theses"

Talking about the job obligations as a cause of plagiarism, a male assistant professor from a public university stated:

“Mostly, the students are job holders. They are unable to manage frequent and regular meeting with their supervisors. It creates communication gap between the research supervisor and his student. As a result they cannot have in time feedback from their supervisors and miss deadline for thesis submission. When they find it difficult to produce a genuine research report, they submit plagiarised material”.

The remaining research supervisors during their interviews mentioned a variety of causes of students' involvement in plagiarism. They proclaimed that the students generally commit plagiarism due to: inability of students to comprehend relevant literature; their poor reading habits; insufficient vocabulary; poor academic writing skills; weaker research skills; miserable research culture at universities; lack of interest in research; deficient awareness about the consequences of committing plagiarism; existence of paper mills; insufficient guidance by the supervisors; sluggish attitude of both the supervisors and the students and; improper time allocation for research work, for example, due to job obligations of students.

Preventive Measures

The respondents were asked to report various measures that were being taken to prevent MPhil and PhD scholars from committing plagiarism.

Measures Taken by the University

Almost half of the research supervisors ($N= 76, 52\%$) proclaimed that university itself did not take any step to reduce plagiarism in students' thesis work. It simply followed the HEC's compulsion of checking similarity index using *Turnitin* software: for which the prescribed criterion was that it should not exceed 20%. This similarity index report was submitted along with other essential documents. The ORIC (wherever it existed) was the body responsible for this activity.

A 45-years old male assistant professor from a public university viewed that: *“University is not taking any significant measure to prevent plagiarism in research work. It just follows HEC's policy regarding plagiarism and disseminate it to the research supervisors”.*

Another male assistant professor of 41 from a public university stated that:

“University just provides Turnitin accounts to teachers to check plagiarism. Teachers are overburdened, they have just four months to take assignments, quizzes, presentations, midterm and final term examinations. Moreover, they teach over crowded classes, usually comprising more than fifty students. Hence, it is not possible for them to check plagiarism of each assignment of every student.”

One third of the respondents ($N=48, 33\%$) affirmed that the university officially took necessary measures for reducing plagiarism in students'

research work. For instance, before the formal submission of any dissertation it was compulsory to check its similarity index and attached the report with its other requisites. It was not permissible for a student to submit his/her thesis which had a higher similarity index (i.e. greater than 19%). Thereafter, it was counter checked by the librarian and the supervisors. Besides this, universities organised seminars and workshops as to how the plagiarism was avoided and disseminated notices, letters and circulars from time to time to the departments in order to keep all the supervisors and the students vigilant on the issue of plagiarism. Quality Enhancement Cell (QEC) of the university played vital role to discourage plagiarism and avoid the consequences thereof.

One of the female associate professors of 44 from a private university narrated that:

“Our university, as a precautionary measure, organises seminars and workshops to sensitise the quarters concerned on this issue.”

On the other side, some of the respondents ($N=22$, 15%) did not respond to this question and posited that did not know any of the measures taken by the university in this regard.

Measures Suggested by Supervisors

Majority of the research supervisors ($N=102$, 70%) were found divided in their opinion when they were asked to suggest some measures for reducing plagiarism in students' research work. However, a relatively small group of them ($N=44$, 30%) were found agreed with the view that the students needed training regarding awareness of plagiarism, use of plagiarism detecting software and sensitisation to the fact that plagiarism was a crime, an unethical act and dishonesty. The suggestions were related to research supervisors, students and the research programmes as well.

For example, a male senior professors of 59 with diverse experience in the field of educational research, from a public university described:

“The only way to convince students on avoiding plagiarism is that the research supervisor, being role models, themselves avoid it”.

A female associate professor of 45 from a public university suggested:

“Supervision of students' research work should be given special consideration in terms of credit hours and the supervisors should be paid accordingly so that they may enthusiastically focus on it”.

While suggesting preventive measures of plagiarism, a male assistant professor of 51 from a private university viewed that:

“It is unjust to treat MS/MPhil or PhD as a part time activity. These degree programmes should be declared full-time academic activities. To this end, evening classes or weekend programmes should be banned at once”.

The research supervisors suggested numerous measures for reducing plagiarism in students' research work. They proposed that workshops, seminars, and orientation sessions should be conducted at universities. Supervisors should highlight demerits and penalties of plagiarism and hideous consequences of plagiarism on future professional life of students and educate the students about the difference between plagiarism and similarity index. Universities should take steps to improve research culture. Supervisors should be competent in supervisory skills. Supervisors should take strict actions against students and do not allow submission of plagiarised work. Frequent meetings of the supervisors and the students are needed before submission of thesis to guide them how to avoid plagiarism. The supervisors and the students both should have software and login accounts of *Turnitin* to know the similarity index of their work. The students should be trained on how to properly acknowledge work of other scholars in their theses. Creative writing skills of students, particularly, in English are needed to be promoted among students at undergraduate and postgraduate levels. Centres of excellence should be established for the promotion of academic writing skills or a compulsory academic writing course should be designed to enhance the academic writing skills of students. The students must go through a careful and intensive reading of the relevant literature. Similarity index of students' assignments must be checked during their course work. Practicum on how to avoid plagiarism in the research work should be included in course outlines. Motivate and train the students on how to think creatively. The permissible limit of similarity index should not be the same for all subjects

Table 2: Results of the FGDs with MPhil/PhD Students

Indicators	Causes	Measures
Willingness	Lack of knowledge.	University may identify the weak students and arrange make up classes to meet their knowledge deficiency.
	Lack of motivation	Prior finalizing research topics, motivation lectures may be arranged by concern university department to research scholars.
	Lack of hard working	Hard working students should be encouraged and lacking students may be provided counselling to overcome their shirk work.
	Job commitment.	Despite job issues, main focus be given on accomplishment of research.
	Domestic issues	Share the issues with family members so that they may support the researchers in their solution.
Skillfulness	Lack of literature review.	University may arrange practical assignments about literature review to scholars prior allotting research topics so that research scholars able to do literature review about the topic accurately.

	Weak in statistics usage	Statistics practical exercises should be given to students in their course work and its evaluation be done properly.
	Poor in research analysis	University may arrange proper research analysis classes by statistics experts.

Causes of Plagiarism

The students indicated various causes of why students are involved in plagiarism while doing their research work. The underlying causes of plagiarism by students are:

- students wish getting degree in a shorter time; poor academic writing skills and; they are habitual of looking for a short cut in every matter.

For example, one of the male MPhil students from a private university reported that:

“The students search short cut and easy way for completing their theses, so they commit plagiarism”.

For instance, a female MPhil student from a private university said that:

“The students have poor English writing skills chiefly creative writing skills. Due to language barriers the students copy and paste material from any of the internet source and claim it as their own work without acknowledging the true source”.

Besides this, students are not accustomed to working hard; they have inadequate/defective awareness of plagiarism making them unable to understand that they are committing plagiarism; students have meagre research skills and little interest in research work; poor time-management due to their job obligations; laziness/lethargic attitude of students; their incompetence leads them to copy others as they are afraid of making mistakes if they produce their original work; insufficient/improper guidance by their supervisors and; inability to search relevant literature resulting in their malpractices like plagiarism.

Measures Taken by the University

In response to the question that ‘what kind of measures your university is taking to reduce plagiarism in students’ thesis work’, the students were found divided in their opinion. Majority of student groups ($N=35$, 57%) were of the opinion that they were unaware of any measures being taken by universities for reducing plagiarism in students’ research work. What they knew was the permitted limit of similarity index i.e. 19%.

Talking about his standpoint, a male MPhil student from a public university stated that:

“University rejects the theses of students whose similarity index accedes 19%. The supervisors return these theses back to the students for revision”.

A sizeable number of student groups ($N=15$, 25%) proclaimed that their universities were taking certain measures to reduce plagiarism in the students' theses work. Universities strictly follow the plagiarism policy provided by HEC. Universities reject the theses containing plagiarised work. At some universities assessment of theses is negatively affected by the number of times similarity index report is generated to have check on students' trickery. The supervisors are bound to acquaint their students with the plagiarism policy at the very onset of their research work. Some universities organise seminars on awareness of plagiarism.

However, a few of the respondent groups ($N=11$, 18%) described that universities were not taking any concrete steps for reducing plagiarism in students' research work. Just ORIC (wherever it existed) dealt with plagiarism as it had the authority to reject theses which contained plagiarised material.

Measures Suggested by Students

Pointing to the required measures for reducing plagiarism in students' research work, most of them ($N=36$, 60%) suggested that the supervisors should guide the students how to paraphrase a written content (restate the content in other words). A series of seminars and workshops on the causes and consequences of plagiarism with no financial liability on the students are required to be organised for awareness and responsiveness of the quarters concerned. The students believed that these are the teachers who should take the responsibility of making them improve their writing ability.

Elaborating her viewpoint a female MPhil student from a private university narrated that:

“Teachers should take steps from gross root level to improve students' creative writing skills particularly in English”.

For the students of science availability physical resources did matter a lot. Absence of necessary equipment and unavailability of essential chemicals may rightly compel the students to commit, though unwillingly, intentional plagiarism.

Another group of PhD students from the Department of Chemistry at a public university suggested that:

“The students should be provided with physical resources to carryout experimentation without any act of plagiarism”.

The rest of student groups ($N=24$, 40%) proposed following measures to prevent plagiarism in students' research work. The plagiarism in course work assignments should also be checked. The supervisors should have a regular check and balance on the students' progress in research work. Creative writing skills of students, particularly, in English are needed to be promoted since BS

and Master level. There should be centres of excellence for the promotion of writing skills or a compulsory writing course of English communication as a second language like IELTS, TOEFL etc. Provisions for experimentation facilities should be ensured during students' research work in sciences. Prescribed time for these completion may be relaxed to compensate shortage of resources. The students need to invest more time and efforts to reading the relevant literature. The students must be aware of the ethical aspect of committing plagiarism. Every teacher should deliver a brief lecture of 5 to 15 minutes on plagiarism at least once in a semester at BS/Master level.

FINDINGS OF THE STUDY

Causes of Plagiarism

It was found that the MPhil/PhD students usually commit plagiarism due to certain reasons. The students are habitual of making a short cut for their thesis completion and want to get the degree in a shorter time. On the other hand, they do not give sufficient time to their research work for different alleged reasons e.g., due to their job obligations. They produce copy pasted content as they are fear of making mistakes if they will write on their own. Some times they unintentionally commit plagiarism as they are unaware of its consequences. Most of the students lack in English reading and writing skills. They have poor research skills coupled with little interest in research work. Their supervisors do not properly guide them how to look for and review useful literature vis-a-vis students are unable to search relevant literature themselves.

Preventive Measures

The respondents highlighted some measures that the universities are taking to reduce plagiarism in students' research work. They proclaimed that the universities have enacted a strict plagiarism policy provided by HEC while the supervisors make the students aware of the plagiarism policy. Universities reject the theses having plagiarism, at some universities assessment of theses is affected negatively by the number of times similarity index report is generated. Moreover, research supervisors may face hardships like difficulty in promotion, cancellation of their published research work, deprivation of due benefits on research work etc if they favour the plagiarised research work. Universities are now organising seminars on awareness of plagiarism. The ORIC (wherever it exists) officially deals with the issue of plagiarism in students' research work and in some cases rejects their theses.

They informants also suggested certain measures to reduce plagiarism in students' research work. They proposed that the supervisors should help students improve their academic writing skills and guide them how to rewrite/paraphrase the content taken from other research work. Seminars and workshops on the causes and consequences of plagiarism with no financial liability on the students are required to be organised. Plagiarism in classroom assignments should be formally checked. There should be a regular check and balance by the supervisors on the students' work. Creative writing skills of

students, particularly, in English are needed to be promoted at BS and Master level. There should be centres of excellence for the promotion of writing skills or a compulsory writing course of English communication as a second language may be introduced. Provisions for experimentation are exceedingly urged to be made available and accessible to students by the university during research work. University should relax the prescribed timeframe for theses completion. The students are intensively needed to invest more efforts on reading the relevant literature. Every teacher should deliver a brief lecture of 5 to 15 minutes on plagiarism at least once in a semester at BS/Master level.

CONCLUSIONS

On the basis of the findings it was concluded that ‘habit of using shortcut in every-day life’, ‘the attitude of unduly saving resources and efforts’, ‘poor academic writing skills’, ‘shallow research culture at universities’, ‘weaker research skills of students and supervisors’, ‘fear of making mistakes’, ‘ignorance toward the consequences of committing plagiarism’, ‘inability to review the relevant literature’; ‘supervisors’ improper guidance’ ‘sluggish behaviour of both the supervisors and the students’, ‘investing insufficient time to research work due to job obligations’ are the main causes of plagiarism in research work at post graduate level.

To reduce plagiarism in students’ research work, universities are taking several measures. Before formal submission of any dissertation, it is compulsory to verify its similarity index and it can be submitted only if it does not exceed the limit of 19%. It is obligatory to attach the report at the time of formal submission. Additionally, seminars and workshops are organized both at university as well as department level along with frequent reminding notices, letters and circulars by the authorities like QEC, ORIC, Office of the Registrar etc to the departments to prevent the plagiarism practices. Plagiarized theses are usually rejected. Assessment of theses at some universities is affected by the number of times similarity index report is generated. The supervisors, if found guilty of submitting plagiarized work, have to face adversities like difficulty in promotion, cancellation of their published research work, deprivation (and sometimes confiscation) of the benefits they have had enjoyed on that very research work.

RECOMMENDATIONS

On the basis of the findings of the study it is suggested that the university teachers and research supervisors should aware the students during course work at BS, Master and MPhil level about plagiarism and its consequences. The checking of similarity of students’ assignment through *Turnitin* should be made obligatory. Higher Education Commission of Pakistan and the universities should organise trainings, workshops, seminars, and orientation sessions for research students highlighting plagiarism penalties, demerits and consequences of producing plagiarised research work. Quality Enhancement Cells in the universities should play their role for the reduction of plagiarism by circulating notices and official letters time to time to the heads of the departments and the supervisors about the implications of plagiarism. The supervisors should strive to enhance their competence in research supervision

and regularly monitor the students' progress in research work to stop them committing plagiarism.

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