

PLAGIARISM: AN ACT AGAINST THE RESEARCH ETHICS**Hetalbahen Mohanbhai Baria, Radha Pulandar Sinh Kushvah, Madhuri Kalpeshbhai Bamaniya, Dhvaniben Naimeshbhai Suthar & Tapan Kumar Mahato***

Abstract: Simply said, the goal of every research project is to uncover new information that can be used to solve an issue. Evidence from scientific research lends credibility to the work, not just in the country where it is done, but globally. That can only be accomplished with a wholly honest study. Plagiarism occurs when one uses another person's research or writing as one's own without properly attributing the source. Plagiarism is unethical and should be avoided at all costs. Plagiarism can occur for a variety of reasons, both deliberate and unintentional. Universities use a variety of anti-plagiarism programs, but they all tolerate plagiarism at levels of 15–20% because thesis or article preparation is impossible without the use of laws, quotes, formulae, etc., that must be used exactly as written. There is both free and commercial software for finding instances of plagiarism, with the latter being preferred due to its reliability, accuracy, and user-friendliness in the face of potential misuse of uploaded theses and articles. Researchers who plagiarize risk having their funding cut off by the university's grant commission, which views plagiarism as akin to a crime. Plagiarism can only be stopped by strictly enforcing the rules. This article will help the students as well as the researchers to understand the plagiarism, reasons of plagiarism, types, penalties as per University grant commission declared in 2018 and plagiarism detection software (free and commercial).

Keywords: Plagiarism, plagiarism detection software, plagiarism checking software, penalty of plagiarism, reasons of plagiarism, avoiding plagiarism.

Introduction: **Statistics:** Data collection, interpretation, and presentation are the four main components of statistics. The point of statistics is not to utilize formulae to perform numerous calculations, but rather to gain insight from the data.

Biostatistics: The field of research known as biostatistics examines the application of statistical methods to the fields of biology and medicine. Many people consider Francis Galton to be the

"father" of the field of biostatistics. He is responsible for the creation of the statistical term "correlation." When it comes to dealing with statistics, it is utilized in the fields of biology, medicine, nursing, pharmacy, public health and other areas of the health sciences. The distinction between biostatistics and biometry depends on whether it is employed in the health sciences (biostatistics) or in more general biology (biometry), such as agriculture, ecology, or wildlife biology. If it is utilized in the health sciences, biostatistics is a distinct field from biometry. The statistician can assist the biologist in discovering general rules from very small samples and gaining an understanding of how variability is generated [1].

India is consistently ranked among the top five countries worldwide for its pharmaceutical industry. In terms of analyzing data, performing

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computations, and so on, software is utilized more frequently because it can finish the work in a relatively short amount of time. The employment of computers and cutting-edge software in research is becoming increasingly common. The field of study known as biostatistics (living things) studies the application of mathematics to biological systems. Due to the fact that biostatistics may be used in both experimental and observational research, it is a subject that should be studied in the pharmaceutical industry, as well as in medical and paramedical schools (such as nursing and Pharmacy institutions) [2].

Research: Research is an investigation that is carried out in a methodical manner with the intention of acquiring or adding to generalized knowledge. The first step in research is typically the identification of problems, which is then followed by the formation of research objectives and suggestions for how the problems can be solved using data from scientific studies.

Why research is required? Through the use of scientific methods, research aims to find answers to open-ended questions. Finding the truth that is concealed and undiscovered as of yet is the major goal of study. The following are the primary needs and goals:

- To become more familiar with a phenomenon or to acquire fresh ideas into that phenomenon.
- To depict in an appropriate manner the qualities of a certain person, circumstance, or group of people.
- To ascertain the regularity with which something takes place or the degree to which it is connected to something else.
- To put to the test a theory proposing a correlation between a number of different factors.

Plagiarism: The Latin term "plagiare," which meaning to kidnap or abduct, is the root of the English word plagiarism. The Merriam-Webster Online Dictionary defines "plagiarism" as the act of stealing and misrepresenting (another's thoughts or words) as one's own.

- To plagiarize is to utilize (another's work)

without giving proper credit where credit is due.

- To present as one's own an idea or work that was borrowed from an already existing source.
- To commit literary theft.

In other words, copying is a dishonest thing to do. It means taking someone else's work and then lying about what you did.

The following are all forms of plagiarism:

- Presenting the work of another individual as one's own.
- Lifting phrases or concepts from another person without giving them credit.
- Failing to enclose a quote within quotation marks when necessary.
- Providing inaccurate information about the origin of a quotation you have used.
- Altering the words while copying the syntax of a statement from another source without giving that source credit.
- Plagiarizing so extensively from a source, whether or not you provide credit for it, that the source's words or ideas constitute the majority of your own work.

Reasons to steal the work of others

- Insufficient time to finish the assignment (postponement, poor time management skills, or a busy schedule outside of school can all contribute to this).
- Laziness.
- A lack of basic research abilities (be aware that some plagiarism is unintentional).
- Poor research practices (e.g. failing to document sources used during the research process).
- A concern that one's own academic skills are insufficient, which motivates one to look for a better product.
- Perceived pressure to maintain good grades from outside sources (such as parents, friends, scholarship committees, etc.).
- Cultural distinctions. The concept of "owning" a text or piece of content is perplexing in many non-Western countries.
- As a means to "get ahead," cheating is seen as acceptable in today's society.

- A perceived lack of discipline from the teacher or the organization.
- Because doing so is simple.

Strategies for Avoiding Plagiarism:

First, when taking notes, make sure to quote exactly what the author says. Secondly, while paraphrasing, be sure you are not simply rearranging the words and calling it a day. Instead, go over the passage you wish to paraphrase carefully, hiding the text from view by covering it with your hand or closing the text altogether. Without seeing, write down what you understand to be true. Third, compare your paraphrase to the original text to ensure accuracy and that you haven't used the same phrases or terms by accident [3].

Types of Plagiarism

- Direct plagiarism:** Complete and direct plagiarism are both forms of blatantly appropriating another writer's work and passing it off as one's own. The percentage of duplicate content in each paper is the defining characteristic. When there is total plagiarism, the entire paper is copied. Direct plagiarism occurs when an entire paragraph or section is copied without giving proper citation or acknowledgment to the original author. Direct plagiarism occurs when you copy and paste a sentence or two from a source without giving proper credit.
- Accidental plagiarism:** When a writer plagiarises another's work without intending to do so is known as accidental plagiarism. It is the most prevalent form of plagiarism. Some examples of accidental plagiarism are as follows: Forgetting to cite your sources in your writing, falsely attributing the work of another, refusing to enclose quoted material in quotation marks, Even accidental plagiarism is susceptible to consequences, such as failing your assignment.
- Mosaic plagiarism:** Plagiarism in which bits and pieces of other people's work are stitched into your own is called "patchwork plagiarism." This form of plagiarism is sometimes more covert than obvious and occurs alongside

straightforward plagiarism. Embedding a clause from a source within your own sentence is an example of patchwork plagiarism.

- Paraphrasing plagiarism:** When a writer repurposes the ideas of another but alters a few words or phrases, this is called paraphrasing plagiarism. Many students do this form of plagiarism without realizing what they're doing is wrong. Plagiarism occurs when someone presents another person's original idea in writing without giving proper credit to that person.
- Self-plagiarism:** Perhaps it will come as a shock to learn that self-plagiarism is possible. How? After all, it's your prerogative to do anything you want with your own creative ideas. Yes, but there is a catch. Let's imagine that two years ago you authored an essay on the merits of amending your city's zoning laws, and that today you're researching the effects that similar legislation in other cities has had on their economies and communities over the preceding decade. It would be considered self-plagiarism to include parts of your own essay in your research project. You can utilize the same sources without fear of being accused of plagiarism if you properly cite them. If you write for a living, avoiding instances of self-plagiarism is essential. If a client pays you to write anything, they get to keep it. Plagiarism occurs when an author uses his or her own words in a new work for a different client. (as well as make your clients look bad).
- Source-based plagiarism:** Plagiarism that is based on a work's original sources is not always easy to spot. In this form of plagiarism, the author may provide accurate citations yet still falsify the results of their research. To illustrate, the author may cite a secondary source but give credit only to the original, primary source. Misleading references or completely made-up references are two other instances.
- Complete plagiarism:** Using another author's name on a submission is a blatant form of plagiarism. Plagiarism takes many forms, but the most egregious is when a student pays another

person to write an assignment and then turns in that paper as his or her own. Using your older sister's research paper from five years ago when she attended the same English class as you are a blatant case of plagiarism [4].

These regulations shall be called the University Grants Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institutions) Regulations, 2018. They shall apply to the students, faculty, researchers and staff of all Higher Educational Institutions in the country.

Similarity tests to rule out plagiarism

The following must be disregarded during plagiarism checks for similarity:

Quotation with the proper credit and/or permission.	Bibliography	General word or sentence
	References	Rule
	Contents table	Standard symbol
	Acknowledgements	Standard equation

Table 1: Exclusions from plagiarism check

Levels of Plagiarism: For the purpose of defining plagiarism, its incidence can be broken down into the following categories, which are listed in ascending order of seriousness:

S.NO.	LEVELS	PERCENTAGE	PENALITIES
1	0	Similarities upto 10%	Minor Similarities, no penalty.
2	1	Similarities above 10% to 40%	Such student shall be asked to submit a revised script within a stipulated time period not exceeding 6 months.
3	2	Similarities above 40% to 60%	Such student shall be debarred from submitting a revised script for a period of one year.
4	3	Similarities above 60%	Such student registration for that programme shall be cancelled.
Note 1	Penalty on repeated plagiarism	A student who Plagiarizes at such a high level will be held accountable for the subsequent levels of plagiarism. In the event of significant instances of plagiarism, the appropriate punishments need to be carried out.	

S.NO.	LEVELS	PERCENTAGE	PENALTY
1	0	Similarities upto 10%	Minor similarities, no penalty
2	1	Similarities above 10% to 40%	Comes under major similarities and have penalty
3	2	Similarities above 40% to 60%	
4	3	Similarities above 60%	

Table 2: Levels of Plagiarism with penalties

Penalties: Only after academic misconduct on the part of the individual has been proven beyond a reasonable doubt, when all appeals have been exhausted, and after the individual in question has been given sufficient opportunity to defend himself or herself in a fair or transparent manner, will penalties for plagiarism be imposed on students pursuing studies at the level of Masters and Research programs as well as on researchers, faculty, and staff of the Higher Educational Institutions.

Penalties in case of plagiarism in submission of thesis and dissertations

Institutional Academic Integrity Panel shall impose penalty considering the severity of the Plagiarism.

Note 2	In the event that the degree or credit has already been acquired, a penalty will be imposed.	In the event that plagiarism is found to have been committed after a degree or credit has been awarded, the awarding of the degree or credit will be suspended for a period of time specified by the Institutional Academic Integrity Panel and accepted by the head of the institution.
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Table 3: Penalties in case of plagiarism in submission of thesis and dissertations

Penalties in case of plagiarism in academic and research publications

S.NO.	LEVELS	PERCENTAGE	PENALITIES
1	0	Similarities up to 10%	Minor similarities, no penalty.
2	1	Similarities above 10% to 40%	Shall be asked to withdraw manuscript.
3	2	Similarities above 40% to 60%	a. Be requested to retract the manuscript. b. shall not be entitled to an annual raise. c. May not supervise any new Master's, M.Phil., or Ph.D. students or scholars for a period of two years.
4	3	Similarities above 60%	a. A request to withdraw the manuscript will be made. b. Will not be given the option of two consecutive annual increments. c. For a period of three years, shall not be permitted to supervise any new Master's, M.Phil., or Ph.D. student or scholar.
Note 1	The punishment for repeated instances of plagiarism	They will be penalized for a level of plagiarism that is an increase from what they had previously done and will be requested to withdraw their work if they do not comply. In the event that the plagiarized material is of the highest quality, the penalties that correspond to that standard shall be implemented. If a level 3 offence is committed more than once, the Higher Educational Institutions will take disciplinary action according to the service regulations, which may include either suspension or termination of employment.	
Note 2	If the benefit or credit has already been taken, there will be a penalty.	The benefit or credit will be suspended for the length of time recommended by the Institutional Academic Integrity Panel and agreed by the Head of Institution if plagiarism is discovered after the benefit or credit was provided.	

Table 4: Penalties in case of plagiarism in academic and research publications [5]

Some free and commercial Plagiarism detection software/plagiarism checking software are listed below.

1	Duplichecker	11	Quietest
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2	CopyLeaks	12	Plagly
3	PaperRater	13	Ithenticate
4	Plagiarism	14	Copyscape

	checker		
5	Plagium	15	Turnitin (\$15 in India and \$ 25 outside India per year)
6	Plagscan	16	Scribbr \$ 18.95/month
7	Plagtracker	17	Quetext \$ 9.99/month
8	Urkund	18	Compilatio stadium \$ 5/day
9	Paperchecker	19	Bibme \$ 10/month, free trial of 03 days
10	Crossref		

Table 5: Some common free and commercial Plagiarism detection software

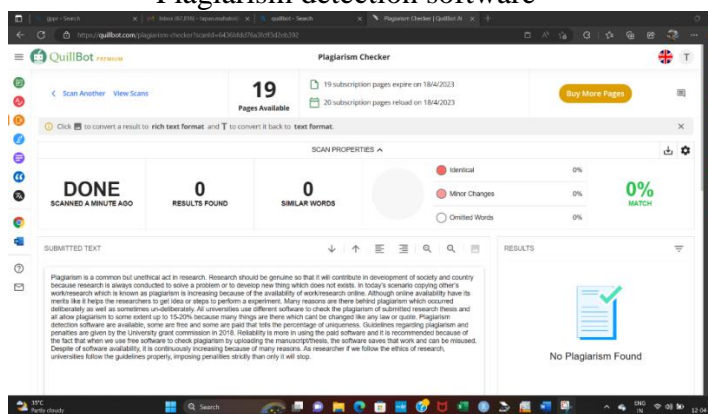


Fig 1: Detection of Plagiarism for a paragraph using Plagiarism checker

Conclusions: Plagiarism is widespread yet dishonest in the academic world. Since the purpose of any given research project is to either find a solution to a preexisting problem or create a new entity that does not yet exist, it seems to reason that this endeavor should be as honest and as thorough as possible. Today, it is easier than ever to plagiarize someone else's work or research because so much of it is available online. There are benefits to having information readily available online, such as providing researchers with inspiration or a road map for carrying out an experiment. Plagiarism can happen on purpose or by accident for many different reasons. Universities utilize a variety of programs to detect plagiarism in submitted theses, and most will accept up to 15–20% unoriginal material due of fixed elements like laws and quotations. There is both free and paid software out there that can

identify plagiarism and provide a percentage of uniqueness. In 2018, the University Grants Commission issued guidelines on plagiarism and associated punishments. The free software we use to check for plagiarism when we upload the manuscript/thesis stores that work and can be misused, hence the commercial software is advised. Despite the existence of anti-plagiarism technologies, the incidence of plagiarism remains high for various reasons. Only by aggressively enforcing standards and penalties at institutions and ensuring that individual researchers adhere to research ethics will this practice be curtailed.

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