

Cheating in Education; A Focus on Plagiarism

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Abstract

Cheating is a kind of fraud or attempts to get dishonest advantages in an academic institution, it has been increasing dramatically for the last 50 years with the growth of technology. In some countries, this phenomenon has changed to a problematic factor in schools. Plagiarism is also considered as a type of cheating if it occurs intentionally. More efforts are made to mitigate the severity of cheating in an academic institution using technological-based devices. Besides, technology has an effective role in the detection of plagiarism by several detection platforms, however, still, there are some types of plagiarism which cannot be detected by these platforms efficiently, that authors should treat honestly during his/her scientific writing.

This work aims to conceptualize and characterize cheating and plagiarism in an academic institution, also it is tried to indicate the relationship of cheating and plagiarism that in which cases, plagiarism becomes cheating. To achieve the purposes, relevant literature including scientific papers, monographs, reports, and authorized website were reviewed, and the literature output are integrated with the observation and experience of author during the teaching and learning in academic institutions.

The findings and direct observation from close contact of classrooms show that cheating is felt mostly in classes with large numbers of students, that institution policy, instructor control, and using of technology have the most effect on the controlling cheating. Plagiarism as academic dishonesty is a widespread phenomenon among the students and even the authors. In some cases, the poor understanding of students and authors in scientific writing rules causes plagiarism and is measurable by some available detection platforms.

Keywords: cheating, plagiarism, paraphrasing, technology, academic, student

1. Introduction

Cheating as a whole concept is a kind of fraud or attempt against the ethical and moral standards to gain something or get the advantages. In human life, there are lots of cheating types including cheating in education, business, relationship, sports, daily life, politics, practices of law and so on. That each of them has its definitions, restriction, strategies, and penalties. In this work, a major focus is on educational cheating. As an education concept, cheating is considered as academic dishonesty, whenever a student or even a teacher does an action being against the standard norms of an academic institution specifically in the teaching and learning process, it is

believed to be a kind of cheating. Most of the US university has serious rules on accommodation of honesty on academic space, for instance, U.S Army ROTC regulations describe that Cheating or any types of academic dishonesty are the signs of undesirable characters that can result in expelling from the institution (Jones 2011).

According to Fendler et al. (2016), numerous report indicates that almost half of all the students in a class cheat on the exams, and is considered as kind of corruption which seriously harm the honesty of students. Generally, there are two types of cheaters; the frequent cheater who has already the cheating plan and entering the class along with it, and the occasional cheater who has not already the cheating plan and is depending on other students during the exam (Carell et al. 2008). Cheating is wrong with any form, severity, kinds and cannot be acceptable in academic institutions.

Plenty of definitions exist on cheating as Jones (2011) stated that cheating is considered as a deceitful or fraudulent activity to get an unfair advantage and also he included the followings as a cheating concept but did not limit to:

- Getting or giving the information in the classroom during any type of assessment including exams, quizzes, tests whether in face to face or online classes.
- Using materials in the form of written or digital during any exam time.
- Taking an exam instead of another student or insist on someone to take an exam instead of you.
- Providing the same paper with a different title for any course and submit it as a different paper.
- Misrepresenting or fabricating in work, source, result, research.

The controlling of cheating in a classroom depends on instruction and the classes where the exams are giving. The exams and tests questions must be different with technics to reduce the chance of cheating, also the penalties for the students might be assigned for prevention and reducing the cheating (Murdock & Anderman 2006; McCabe 2005; Cummings & Romano 2002).

Cheating has become a serious problematic matter in secondary and higher education for several reasons; it has a direct negative effect on instruction equality and the learning process, the students are tended to be less prepared to advanced level of knowledge, also it has an effect on the behaviors of students for their future in the workplace (Miller et al. 2015).

The penalties for cheating are different and depend on educational institution rules and instructors; some instructors give “F” or 0 Point to the student who is cheating during the exam, while some others are cutting the points of the cheater. Some academic institutions have electronic cheater detection systems, and while it detects the student as a cheater, automatically he or she is dropped from that course and 0 point is given. Also, some universities have a very strict rule against cheating as the student is expelled in cases of cheating. Considering the above issues, the severity of cheating is also directly related to cheating penalties set by the authorities or instructor; if the strict rule is set for cheating, the severity is less, and in case of weak rules, the severity is dominantly high.

This manuscript aims to review the cheating concept, distribution, and prevention in the academic institution including secondary and higher around the world, and is mainly focused on

specific types of plagiarism, its distribution in the world, prevention and consequently offers the conclusion and recommendations. The findings of this manuscript will contribute to the more understandings of plagiarism phenomenon and how to reduce it in the scientific works, also it will be a developed pace towards the further studies on how to get the control of cheating and plagiarism.

2. Cheating in Academic Institutions

Cheating has been dramatically increased in the academic institution including secondary and higher education in the past 50 years (Fendler et al. 2016), while it has linear relation with the growth of technology. Because most the cheating techniques are now led by technological instruments such as mobile phones, Programmable Calculators, MP3 Players, Wireless small headphones, PDAs, Invisible ink pen, Wristwatches, Printed labels, Small cheat sheet and so on (Curran et al. 2011). According to (Perez-Pena 2012), this phenomenon is increasing in the future (Fig. 1).

In spite of the disadvantages of technology for cheating, it has also effective points in terms of controlling cheating. Based on some reports, the rate of cheating is less over the computer-based assessment than traditional paper-based examinations.



Figure 1. The different types technological – based instruments used in cheating (from [open access sources](#))

Curran et al. (2011) reported the findings of a survey-based statistics on using of technology in exams by the students during exams:

- 80% of secondary school students were admitted to cheating in exams.
- 51% of secondary school students even did not understand that cheating is wrong.
- 95% of secondary school students claimed that they were caught during the cheating
- 75% of college students were admitted to cheating during exams.
- 90% of college students stated that cheaters will not be caught.

- 85% of college students expressed that cheating is a need.

Furthermore, in some countries, cheating becomes a problematic factor in educational centers. A survey was carried out between the principles of schools in 30 countries, in the analysis the variant “not a problem” is represented by 0 and the variant “cheating is considered as a minor or serious problem” is indicated by 1. The result of the analysis shows that Mongolia is placed in the highest rate where cheating is considered as a serious problem in school, while the countries e.g. England, Canada, Australia, Singapore, and South Korea are pointed where the cheating has the lowest rate of problem (Miller et al. 2015).

The technology evolution has also a positive effect on controlling cheating whether in traditional or technology-based forms. There are plenty of devices that are used as cheating detection or prevention over serious exams. One of these devices is Jammers that can block the receiving and transmitting signals (Curran et al. 2011). When the number of students are more and is out of control of instructors, for instance in some governmental exams, or university entrance exam, such device is used as phone signal blocker that students are not able to have phone contact with each other or with someone else out of the exam. The number of the device is depending on the area; in some cases, several devices are installed to cover the whole area.

Some countries including Afghanistan has the experience of using Jammers during the exam and the percentage of cheating by phones are almost to 0 after installing this. Cheating was a serious problematic factor in Afghanistan before 2015 in the university entrance exam which is attended by more than 200000 students all over the country yearly. Upon using Jammers, the problem arising from cheating by phones is jumped to zero now.

In some countries, Jammer is not allowed to be used, instead, another metal device (Faraday Cage) is used, the instrument is built in the wall of classes dedicated for exams. Faraday Cage blocks all the electromagnetic signals entering or exiting from the class. Most of the universities are equipped with such designed classes for exams. The other alternative options are the instruments that detected the phone signals and the prices are cheap which everyone instructor can have during the exam. It can detect the phone signals within the specified radius in the class, once the signal is detected, the instructor may apply his/her rule upon cheater. Mobysafe manufacture is a device that can detect the 2G mobile phone signals within 20m radius, and the 3G mobile phone signals with a 15m radius. CCTV cameras are also another alternative to be used in the examination classes (Fig. 2). They can control the whole class, and also the cheaters will be scared because being watched by the cameras (Curran et al. 2011). Moreover, some specialized cheater detections systems are also available that can detect the cheaters directly by the cameras based on his actions not allowed in the exams It can automatically reduce the honesty of students and when it gets to 0 then the examination of the student is canceled.



Figure 2. The technological – based instruments to prevent from cheating (from open access sources).

2.1. Cheating and Plagiarism

Plagiarism is taken from a Latin word “Plagiaris” that means “kidnapper”, the word firstly entered to Oxford English Dictionary in 1621, it is defined by Encyclopedia Britannica as “act of taking the writings of another person and passing them off as one’s own” (Dhammi & Haq 2016). Cheating is not limited during the exam in the classroom for the students, however, the instructors, and professors are also sometimes accused of cheating in other forms as plagiarism in their works.

Pechenik (1987) defines plagiarism as the act of forgery, piracy, and fraud which can be a serious crime of academia. Association of Medical Editors by Squires & Fletcher (2005) describes plagiarism as “the use of published and unpublished ideas or words without attribution or permission and presenting them as new and original rather than derived from an existing source”.

Handa (2008) asserted that plagiarism was defined as “plagiarism ranges from the unreferenced use of other’s published and unpublished ideas including research grant application to submission, even sometimes in different language in any forms of print or electronic version” by the Committee of Publication Ethics (COPE) in 1999.

To a general extent, plagiarism is the act of lying, cheating, and stealing the intellectual property of belonging to another. It includes both theft of unwritten ideas and concepts, as well as theft of written texts, notes, computer programs, designs, and other visual and materials. Such academic stealing sometimes seems to be intentional, while in some cases, this action is a result of the low level of academic knowledge and ignorance (Jones 2011).

In academic institutions, cheating can be considered by three main forms; common types, plagiarism, and other collaboration works. Fig. 3 clearly shows the relationship of cheating and plagiarism, it states that all types of plagiarism are not cheating, only deliberated plagiarism is considered as a part of cheating, while the unintended plagiarism is still not cheating but it is considered as Poor Academic Practice (PAP).

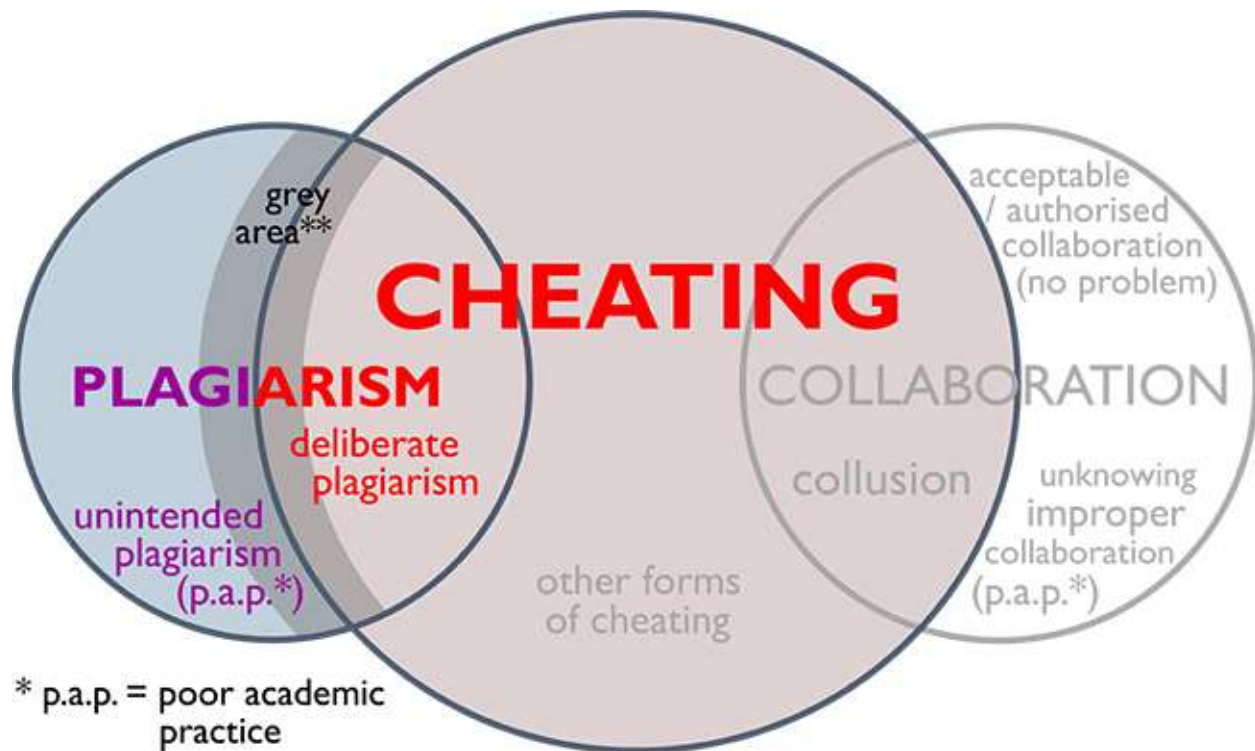


Figure 3. The relationship of Plagiarism and Cheating (source: Johnston 2003 London Met University Academic Framework, 2012, open access).

In (Fig. 3), the grey area means that sometimes it is difficult that plagiarism has arisen from deliberate action or unintended action, this case typically is applicable for the students who carefully do not know about the concept of plagiarism and being academic, also it refers to the emphasized area between the deliberate and unintended plagiarism.

The penalties and punishment for plagiarism depend on the severity of plagiarism and the institution where it happened. In some cases, the plagiarism action is compensated by sending an apology letter, retraction of the published article, while in severe cases, criminal charges (suspension and prosecution of authors) are applied (Kumar et al. 2014), even the final thesis of Master and Ph.D. student is rejected in case of plagiarism at some institutions.

The culture of plagiarism is different through the countries of the world, a survey was carried out by Science Insider between 57 nations, the result shows the percentage of authors who were committed to plagiarism (Bohanoon 2014). The illustration (Fig. 4) describes the occurrence of plagiarism action over the different countries.



Figure 4. The flagged authors based on the submitting their papers over the 57 nations ([open access source](#)).

Another survey was done between the university and high school students in terms of plagiarism by Donald McCabe in infogram website, firstly he surveyed high school and done between 24000 students from 70 different school, the result shows that 58% of students were admitted to plagiarism, while 95% of students were admitted to participating in some sort of cheating, plagiarism, or copying homework. The next survey was done in college and graduate school students. The survey was given to 63700 undergraduate students and 9250 graduate students from 2002 – 2005. The results for the undergraduate show that 36% of students are admitted to copying few sentences from the internet without citing, 38% of students are copying the sentences from written publications without citing, 14% of student are committed to fabricating references, 7% of them are admitted to self-reporting without citation.

For graduate students, the rate of plagiarism is going down as they get familiarized with the concept of plagiarism, the result for graduate students shows that 24% of students are copying few sentences from internet without footnoting or citation, 25% of students are accused of copying the sentences from written sources without citation, 7% of students are fabricating the references, 4% of them are self – reporting without citation of source ([McCabe 2005](#)).

3. Types of Plagiarism

There is no fixed classification of plagiarism, several types are reported in the literature, however, the efforts are made to describe the most common and applicable types of plagiarism in this manuscript. In general scale, plagiarism is categorized as follow by [Streefkerk \(2018\)](#); [Dhammi et al. \(2016\)](#).

- Utilizing ideas of someone else without attribution or citation.
- Copying or rewriting of other authors' words without attribution or citation.
- Incorrectly citation of the source

In academic institutions, the most common types of plagiarism are as follow:

3.1.Paraphrasing Plagiarism

Paraphrasing is the act of rewriting a text from a published or unpublished source in your own words. Paraphrasing or rewriting is considered as the most common type of plagiarism. Paraphrasing or rewriting is not plagiarism when you cite the source, but it becomes plagiarism when you read the different sources, taking out the key points or main ideas and then rewrite it without putting the source or citation. Moreover, whenever you translate a paragraph, you need to follow the rules paraphrasing, otherwise, it becomes plagiarism. It means that a translation without source is also still plagiarism without citation. The paraphrasing from acknowledged sources are frequent and is difficult to detect it ([Martin 1984](#); [Streefkerk 2018](#)).

[Dhammi & Haq 2016](#) describes in their paper that changing a few words or sentences from another source does not make it your own writing, hence it should be well cited, otherwise, it is considered paraphrasing plagiarism.

3.2.Verbatim Plagiarism

When a text is copied and pasted in your work without giving reference and citation, it is considered verbatim plagiarism. There are plenty of definitions for this type of plagiarism, however, the concept of each of them is the same. According to [Dhammi & Haq \(2016\)](#), copying and pasting from a published article without referencing is considered a common type of plagiarism which is called verbatim plagiarism.

Based on [Mozgovoy et al. \(2010\)](#), copying from an electronic source and putting one's own name is called verbatim copying or plagiarism, he asserted that this type of plagiarism is clearly and easily can be detected by automatic machine than any other types. [Marshall & Garry \(2005\)](#) carried out a survey among the 181 students in terms of how much they know about the concept of plagiarism, the result shows that 94% of students answered that copy-paste (Verbatim) form a source without acknowledging or referencing is considered as plagiarism. The abundance and occurring of plagiarism depend on the type of work, verbatim plagiarism occurs mostly in the works characterized by more text than digits e.g. social sciences – based.

3.3.Mosaic Plagiarism (Patchwork plagiarism)

Mosaic plagiarism is also called patchwork or incremental plagiarism, it is the same of paraphrasing with this difference that, in this type, all the sentences or words are not copied, however, pieces of different text or sentences are copied, rewritten to structure a new paragraph without citing the original author. More efforts need to do such plagiarism, and it more insidious than simple paraphrasing type of plagiarism. The automatic detection machines e.g. Turnitin can easily identify this type of plagiarism ([Streefkerk 2018](#)).

This type of plagiarism has the highest rate of severity, as the writers sometimes use a sentence, or paragraph from an original source and add a few words without proper quotation, that here a confusion occurs, whether the added words are belonging to original source or the writer.

Mosaic plagiarism is defined by American Medical Association Manual of style as “borrowing the ideas and opinions from an original source and a few verbatim words or phrases without crediting the original author that in this case, the plagiarist intertwines his or her own ideas and opinions with those of the original author, creating a confused plagiarized mass” (Laishram et al. 2013; Iverson et al. 1998).

3.4. Self – Plagiarism

Self-plagiarism refers to the copying of ideas or paraphrasing of sentences or paragraphs from your own scientific work which has already been published in other journals. The literature described the different versions of self-plagiarism, however, the most serious is related in a work that you already submitted for any purpose (Streefkerk 2018). Publications characterized by self-plagiarism are not considered as scientific work for the authors, while they just get the benefits of increasing the number of published scientific works rather than the scientific contribution (Dhammi & Haq 2016).

Roig (2010) states that self-plagiarism is the reuse of our own previously disseminated ideas, text, data, etc. without any indication, and declares that in such case, the word “covert” should always be used when you reuse your work for instance (covert duplicate publication). Also, he classified the self-plagiarism as a) Duplicate (redundant) publication, b) Augmented Publication, C) Segmented Publication, and D) Text Recycling.

According to Laishram et al. (2013), this type of plagiarism is increasing worldwide and is most common among the students of biomedical departments. Some literature states that self-plagiarism is not intellectual theft, however, it is considered as academic dishonesty. Most of the plagiarism automatic detection platforms have difficulties over the determination of this type of plagiarism, specifically when the author plagiarized the materials from his or her unpublished works.

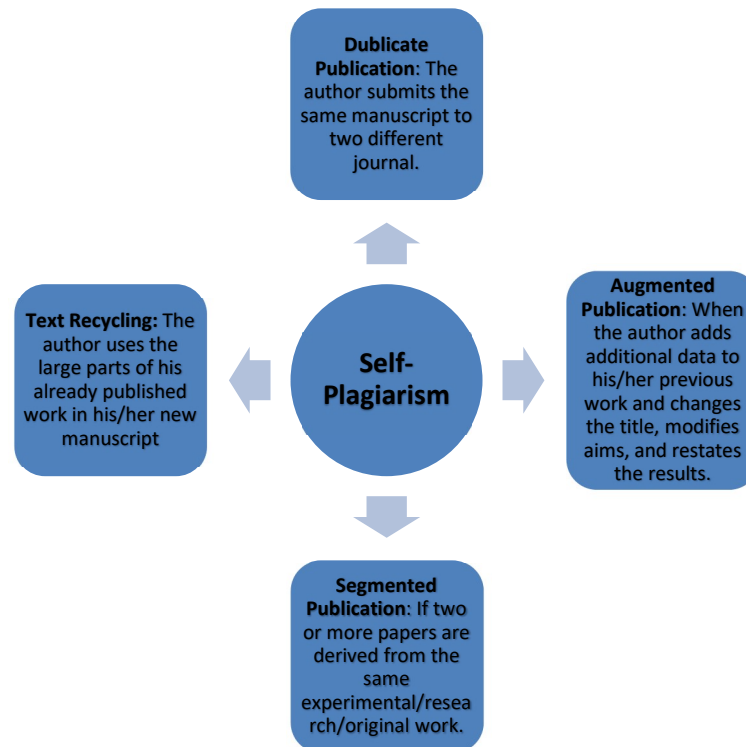


figure 5. The classification of self-plagiarism modified from (Dhammi & Haq 2016).

3.5.Citing Incorrectly (Unintended Plagiarism)

Normally, in scientific works, the targeted text from published or unpublished sources are inserted in by paraphrasing, quoting, or summarizing, the citation or referencing should be consequently carried out. The citation should be added carefully, otherwise, it is considered a type of plagiarism even you would add a citation. The guideline of a citation for every publication is different and makes sure yourself to follow the suggested style, the most common styles of citation are APA, MLA, Chicago, Harvard, Vancouver which are greeted automatically using various software and google scholar. some authors describe a statement in his/her works and attempt to find a supporting resource for it but not able to find, in this case, they are trying to cite the none existent resource, this type of invalid citation is considered plagiarism, also can mislead the readers (Streefkerk 2018).

Greenberger et al. (2016) in their paper “Plagiarism due to misunderstanding: Online Instructor Perception” described that there are common types of plagiarism occurring in higher education institutions including theft, deception, and misunderstanding, however, less literature has been written on the misunderstanding type of plagiarism. In his idea, three factors are causing the plagiarism due to misunderstanding: cultural, generational, and academic enculturation.

In some developing countries, the poor academic level is the main source of this kind of plagiarism, the students are not asked to carefully pay attention to the plagiarism issues, and the ways to avoid it. Most of their assignments are not checked in terms of plagiarism, and the instructors only give the credit to the concept and volume of the assignment. These reasons cause the students to do not have attention to citation and referencing correctly.

3.6.Cyber Plagiarism

Copying and pasting any type of data, papers, ideas from the internet to your own work without giving proper attribution or citation is unethical action and is considered cyber plagiarism. It's a type of plagiarism which has been growing worldwide within the technological revolution (Dhammi & Haq 2016; Jones 2007).

4. Avoiding Plagiarism

The professionals and students in higher education institution use different manual and guidelines for preparing their academic writings, the usable guidelines focus on different aspect of academic works, some of them more focus on topics, methods, and structure, while some others concentration on innovations and new ideas, however, a good guideline must be characterized by an academic standard including academic honesty.

A standard and good scientific writing must be characterized by clear expression, conciseness, accuracy, and the most importantly, honesty, but unfortunately, current scientific writings are not fully followed by the mentioned factors specifically honesty. In every scientific writing, academic dishonesty as plagiarism is considered as the most widely recognized ethical aspect, and its penalty is depending on the institution of publisher rules and policies (Roig 2006).

The plagiarism is avoided by practicing in writing and being honest to our conscious, the early stage of avoiding plagiarism is learning of students on the concept of plagiarism, enabling the students to experience plagiarism detection on their own works, helping them to develop good writing and referencing styles, and give them ideas that plagiarism is an academic dishonesty. In the school period, the students must be paid attention to their assignment having plagiarism by giving feedbacks and comments. Furthermore, it depends on the institution's policies to avoid plagiarism, if the institution has strict rules upon, the students are obliged to follow the rules, students by practicing the academic honesty in the school period can easily observe the plagiarism in his/her further scientific works. As writers, authors, and professional we should be careful to cite all the sources used in our word, be prepared to learn from our mistakes and as much as possible to take the consideration of types of plagiarism (Anderson 2009).

The main concept of plagiarism is not giving the citation of the source which has been used in our works, in this extend, Kumar et al. (2014) proposed the 10 following rules to write quality paper without plagiarism:

1. Consume more sufficient time to complete your work.
2. Before understanding the whole concept then write the new idea in your own words.
3. Try to avoid "copy-paste"
4. Do not limit your work to one source, but always try a few related sources as possible.
5. Learn to write a quality paper in terms of how and when to quote, also to avoid mosaicking.
6. Always cite the new and doubt issues, not common issues.
7. Carefully read the author's guideline of the relevant publisher in which your work would be published.
8. Cite the resource accurately.
9. Acknowledge and give enough credit to the original sources.

10. Do not write several papers on the same concept and type and submitting to different journals at the same time.

Before submitting assignment or paper for publication, we should make sure on the plagiarism severity and purity, for this purpose, lots of plagiarism detection platforms e.g. Turnitin, Ithenticate, etc. are available. Authorized and strong detection platforms are not free of charge. The most common plagiarism detection systems are stated in (Fig. 6).

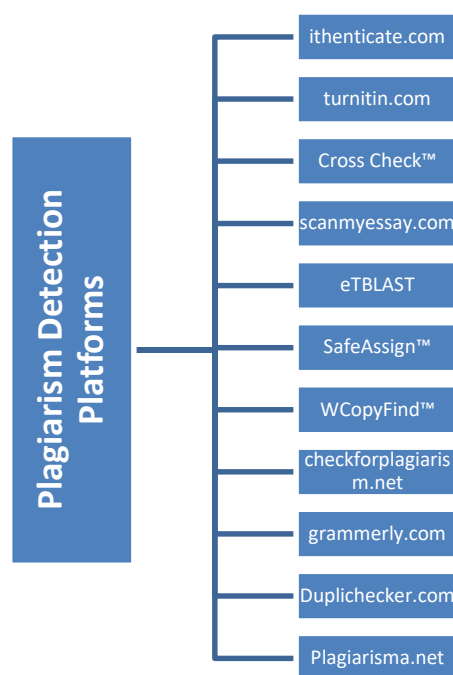


Figure 6. Various plagiarism detection platforms modified from (Kumar et al. 2014).

5. Discussion

In human life, cheating is considered as a type of fraud or attempt to achieve something and this term is used in all aspects of social life, however, the scope of cheating in this work is within educational institutions. The growth of technology either effects on increasing cheating in academic institutions or an effective approach to controlling of cheating. It has been discussed in most of the literature that cheating should be controlled by the instructor using some tools and devices, however, the students from the early period of his/her education in school must be realized the concept of cheating as a fraud. If students realize their responsibilities accurately, without any doubt they will not be accused of cheating. If they are honestly committed to themselves in terms of learning and education, they will never think of cheating for taking the grade or higher points.

Some of the countries with the highest quality of education experiencing such status, even their students passing the exams without the presence of instructor in the class because doing the cheating is a kind of dishonesty and shame for them.

Plagiarism is considered as a part of cheating if it is done intentionally. Most of the students and academicians scientific are being accused by plagiarism, indeed they do not understand the ways of avoiding plagiarism, standard ways of citation and referencing, the rules of plagiarism. It means that firstly they must be trained by professionals in terms of scientific writing and academic dishonesty, and their writings consequently must be reviewed, noticed, given feedbacks.

Some types of plagiarism, e.g. self-plagiarism, or copying from unpublished sources, are difficult to be detected by detection platforms, here the author must be honest rather than thinking of increasing the numbers of his/her publication. In most of the developing countries, even the senior students do not understand the concept of plagiarism because his/her institution does not strictly pay attention to plagiarism and accepts their thesis/or dissertation without consideration of plagiarism, this situation can widely effect on their future careers as well.

6. Conclusions

Upon the reviewing relevant literature and the experience of author in teaching and learning, it was revealed that growth of technology has positive effect on the increase of cheating in academic institutions, form other hand, it has also effective effect on controlling of cheating using some device e.g. Jammers, signal detectors e.g. Most of the developing countries were indicated by high rates of cheating in schools and universities, and even the cheating has become as a problematic factor in schools of some countries that Magnolia is placed in the highest rate, while England is the lowest.

Cheating occurs in classes with a high number of students and poor controlling by the instructor, in such situations, using from technological devices is considered a powerful alternative to decrease the rate of cheating.

Plagiarism is considered as a type of cheating if it is done deliberately that in most cases, the author does not understand the real concept of plagiarism and the tricks to avoid. The technological-based plagiarism detection platforms bring high facilities in terms of plagiarism detection and giving suggestions to authors, however, still some types of plagiarism cannot be detected by these systems.

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