



PLAGIARISM ISSUES IN STUDENTS' PROJECT IN NIGERIAN TERTIARY INSTITUTIONS: A CASE STUDY OF EDO STATE POLYTECHNIC USEN

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ABSTRACT

Plagiarism is a form of academic dishonesty; it is prevalent in the educational and non educational sector. Plagiarism is a universal problem; incidents of plagiarism are becoming increasingly popular in most institutions due to the advent of ICT and internet revolution. This research focuses on determining the level of plagiarism in students' project in Nigeria tertiary institution a case of Edo State polytechnic Usen. The survey research method adopted for this work involved the collection of two hundred and forty-five (245) projects from the library across some departments in the school. These projects were tested for plagiarism content level using plagiarism checker X software. From the analysis the mean of the distribution is 49.82, mean deviation about the median and mean are 15.69 and 15.71 respectively, the mean indicates plagiarism content of about 50 percent and originality of 50 percent. The class interval group of 16-20 has the least plagiarized content with an originality of 82 percent and the class interval group with the least originality content is 76-80 with just 22 percent and this group has the highest level of plagiarized content with an average of 78 percent. This work shows that the plagiarism level is high when compared to global practice.

Keywords: Plagiarism; Academic dishonesty; Tertiary Institution; Plagiarism checker X; Software.

INTRODUCTION

Plagiarism in the academia is a global problem that is often as the result of both lack of knowledge and skills (p.org, 2017). According to Nordling (2018), there is no conclusive evidence that plagiarism is more common in poorer nations like Nigeria than in wealthier countries. An analysis of 2000 papers appearing in low quality, fee-based and a few titles based journals, published in *Nature* in 2017, found that researchers based in Nigeria made up the third largest group of authors, behind authors from India and the United States.

Plagiarism in summary is a fraudulent action that has to do with the theft of someone else's work (p.org, 2017).

Plagiarism as a serious misconduct affects the reputation and trustworthiness of scholarly journals and articles. There is a global awareness campaign and strategies for preventive and tracking published works by editors (Sung-Tae, 2016).

Nigerian public tertiary institutions have been plagued by challenges such as inadequate funding, incessant strikes by various unions in the system, dearth of academic staff, plagiarism issues involving staff and students' and so on. These challenges have certainly contributed to the decline in the quality of education delivery as well as the quality of graduate output.

Growing incidents of plagiarism seem to plague tertiary institutions in Nigeria and the world in general especially with the advent of the Internet (Onuoha &

Ikonne, 2013). Plagiarism is a form of academic dishonesty, it is prevalent in the educational and non educational sector. Basically, it involves the lifting and using of a published work without giving due reference to the original work amongst other things (Archibong, 2012).

The term plagiarism has received much attention in recent times as incidents of plagiarism seem to be on the increase. According to Glendinning (2014), significant amount of time and resources have been spent on research and data collection in response to addressing the worrisome high levels of plagiarism among students in higher education institutions (HEI).

With the advent of the Internet, information is more easily accessible without geographical constraints; hence researchers can now lay their hands on documents in any part of the world. Although, this is a laudable development considering that scholars develop new ideas while learning from the writings of others (Coulthard 2004), some researchers, however, prefer to steal the ideas of others rather than learn from their work. Okeke (2001) points out that the plague of plagiarism can be attributed to an educational system that seems to produce fake intellectuals, who merely endure education while stealing the work of others as cover up.

Although, plagiarism is a universal problem, incidents of plagiarism are becoming increasingly popular in most institutions.

In the Nigerian institutions of higher learning students employ what is

commonly known as “cut and paste” when doing assignments or carrying out research projects. Obinna (2012) sadly notes that plagiarism and poor writing skills are the bane of Nigeria’s educational system. This is understandably so as plagiarism affects not only the integrity of the individual concerned but also the integrity of the institution associated with the individual.

LITERATURE REVIEW

Plagiarism is a menace that has ravaged the academic world. It is becoming a “pandemic” eating through the very fabric of academic integrity. Literatures consulted attest to the critical need for eradicating or reducing it to the barest minimum through the consented efforts of all stake holders in the academic community (Onuoha & Ikonne, 2013).

Plagiarism according to Dictionary.com, is an act or a situation of using the language, words and thoughts of an author without permission or authority to do so, as your own without giving credit to the original author.

Plagiarism therefore constitutes a dire threat to the growth and development of genuine global scholarly and research works (Idiegbeyan-ose, Nkiko and Ifeakachuku, 2016).

Plagiarism is an issue of major concern in all academic and research institutions across the globe and Nigeria is not an exception with several views and ideas (Orim, 2015).

The Latin root word, *plagiare*, according to Sharkey & Culp (2005) means to kidnap. To plagiarise therefore involves

an action of taking by force that which belongs to someone else. It is the theft of someone’s intellectual property (Wikipedia.org). Hexham (1999) notes that the primary definition of plagiarism is theft.

According to the Merriam-Webster online dictionary, to "plagiarize" means: (p.org, 2017):

- to steal and pass off (the ideas or words of another) as one's own
- to use (another's production) without crediting the source
- to commit literary theft
- to present as new and original an idea or product derived from an existing source

Grantham (2009) highlighted the different types of plagiarism as:

- a) copying an entire source and presenting it as one's own;
- b) copying sections from a source without proper acknowledgement;
- c) paraphrasing materials from a source without proper acknowledgement;
- d) presenting another person's work with or without their knowledge;
- e) buying an essay/paper from a research service.

The American Institute of Electrical and Electronics Engineers further explain acts of plagiarism to include where:

- a) no credits were given with the verbatim copy of a full text;
- b) no credits were given with the verbatim copy of a large section of a text;

- c) no credits given with the verbatim copy of individual elements like sentences, paragraphs and illustrations;
- d) no credits given with the paraphrasing of pages or paragraphs with only minor alterations.

REASONS FOR PLAGIARISM

Although plagiarism has always been from ancient time, it can be said to be an ancient crime which have existed even before the advent of the Internet, the Internet has no doubt contributed to the ease at which the menace has grown in the recent years (Alabi, 2005; McCabe et al., 2001 & Babalola 2012). The ease in copying associated with the Internet makes it attractive for students to cut and paste (Alabi, 2005). Another reason is the abundance of online sites providing and exploiting the business possibilities of the student market, providing online paid services for written projects, term papers and dissertations (Anderson, 1999).

Other reasons for committing plagiarism are:

- a) lack of consequences for those who plagiarize and perception of task as boring (Grantham, 2009);
- b) perception of plagiarism as a reasonable risk-free way out of difficulties (Bannister & Ashworth, 1998);
- c) lack of understanding;
- d) time management;
- e) defiance;
- f) emptation and
- g) opportunity.

Although students may engage in acts of plagiarism intentionally, some students unknowingly plagiarize because they are unclear of what constitutes a quotation or paraphrase and how to cite properly (Insley, 2011 & Gabriel, 2010).

OBJECTIVE AND METHODOLOGY

The issues of plagiarism have in no doubt affected the quality and trustworthiness of projects and assignment of students'. Obviously, this issues have impacted negatively on the quality of the graduates produced. Hence, the research to primarily look at the quality in terms the volume of plagiarized work in each of the final year students' project submitted to their respective departments as prerequisite for the award of their respective certificates in Edo State Polytechnic Usen. The originality or level of plagiarism of their project work will be determined using plagiarism software. This study was conducted between October 2017 – January 2018

The research will involve:

- i. Collecting Final year students' project from the departments of Public Administration, Marketing, Accountancy, Business Admin., Estate management, Surveying & Geo-informatics, Computer Science Electrical Engineering, and Civil Engineering as submitted to the Polytechnic Library.
- ii. The collected project will be subjected to plagiarism check using software 'Plagiarism Checker X'.

The plagiarism checker X software is an online plagiarism checking and a premier content scanning tool that helps users identify the level of plagiarism within their content. Through this feature, users can check the authenticity of their content against 16 billion published pages. It helps students, writers and researchers avoid any copyrights violation.

Plagiarism Checker X uses three colors to highlight the several levels of plagiarism detected. The blue color represents a low level of plagiarism ranging from 0 to 19%. The green color represents a medium level of plagiarism ranging from 20 to 39%. While the red

color represents a high level of plagiarism ranging from 40% to above (plagiarism checker X website).

RESULTS AND ANALYSIS

The data collected was the soft copies of final year students of ND 2 across the various departments as listed above in the school from the Polytechnic library and a total of 245 students plagiarism score was obtained and the data are listed below. The range of the collected plagiarism data is between 20 percent and 80 percent. Below are the raw scores which represent the plagiarism percent for each project subjected to the software:

66, 50, 42, 63, 60, 56, 74, 64, 22, 51, 64, 75, 51, 37, 72, 63, 26, 20, 68, 77, 68, 76, 68, 26, 46, 52, 64, 41, 33, 67, 41, 68, 67, 56, 69, 29, 26, 28, 20, 72, 40, 22, 56, 73, 35, 21, 80, 67, 37, 69, 62, 62, 38, 73, 29, 25, 54, 57, 24, 36, 78, 33, 40, 56, 43, 24, 50, 23, 62, 77, 26, 53, 32, 35, 60, 76, 29, 65, 80, 40, 46, 74, 78, 53, 59, 25, 52, 57, 61, 69, 53, 74, 75, 66, 30, 30, 75, 73, 35, 44, 51, 67, 60, 56, 80, 69, 64, 77, 27, 37, 73, 41, 55, 59, 27, 25, 31, 48, 36, 71, 67, 39, 56, 74, 20, 50, 79, 57, 49, 62, 32, 74, 42, 64, 79, 70, 26, 29, 35, 26, 45, 28, 54, 72, 45, 44, 46, 21, 45, 33, 61, 63, 47, 61, 56, 38, 33, 30, 46, 57, 62, 60, 21, 23, 57, 80, 31, 69, 32, 35, 34, 69, 51, 24, 24, 72, 31, 21, 71, 32, 63, 29, 28, 43, 38, 56, 21, 28, 46, 41, 46, 40, 60, 39, 27, 31, 36, 66, 37, 54, 59, 41, 36, 76, 40, 56, 47, 78, 37, 71, 32, 25, 54, 74, 73, 49, 39, 72, 55, 24, 53, 79, 53, 70, 23, 46, 57, 63, 78, 22, 46, 49, 59, 76, 60, 20, 65, 26, 20, 34, 31, 32, 54, 31, 67.

The raw scores are further grouped into class intervals for statistical analysis. The class intervals represent the grouping of the plagiarism scores obtained. The mid-term is a representative data for each group of class intervals.

Table 1: showing frequency table with class intervals

Class Interval	Mid-term (X)	Frequency (F)
16-20	18	5
21-25	23	20
26-30	28	22
31-35	33	23
36-40	38	20
41-45	43	14
46-50	48	17
51-55	53	18
56-60	58	25
61-65	63	20
66-70	68	21
71-75	73	22
76-80	78	18
		245

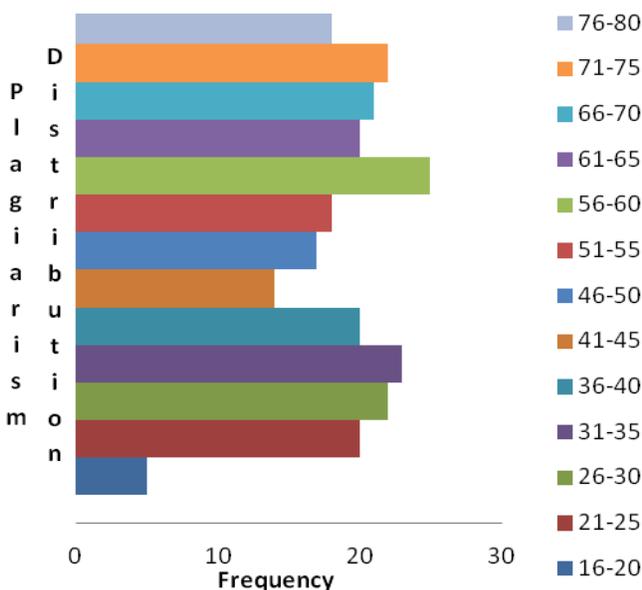


Figure 1: showing bar chart of the frequency table

The bar chart in figure 1 gives the frequency presentation of table 1 with respect to the class intervals of the plagiarism scores for each project and it is observed that the class interval of 56-60 percent plagiarism score with mid-term of 58 has the most frequency with 25 followed by class intervals of 31-35 percent score with mid-term 33, is 23 and the least is class intervals of 16-20 percent score with mid-term 18, is 5.

The class interval 16-20 constitutes 2 percent of the project, followed by class interval 41-45 with 5.7 percent then class interval 46-50 with 6.9 percent. The class interval 56-60 make s up 10.2 percent of the total projects analyzed followed by class interval 26-30 and 71-75 with 9 percent. This can be found in table 2

Furthermore, the originality of each project is by subtracting the mid-term

from 100. This information is given in table 3.

Table 2: showing percentage of the plagiarized content class

Class interval	Mid value (X)	Plagiarized class %
16-20	18	2
21-25	23	8.2
26-30	28	9
31-35	33	9.3
36-40	38	8.2
41-45	43	5.7
46-50	48	6.9
51-55	53	7.3
56-60	58	10.2
61-65	63	8.2
66-70	68	8.6
71-75	73	9
76-80	78	7.3

Table 3: showing percentage originality of the projects

Class interval	Mid value (X)	Originality (100-X)%
16-20	18	82
21-25	23	77
26-30	28	72
31-35	33	67
36-40	38	62
41-45	43	57
46-50	48	52
51-55	53	47
56-60	58	42
61-65	63	37
66-70	68	32
71-75	73	27
76-80	78	22

Consequently, from table 3 it is observed that class interval group of 16-20 have the least plagiarized content with an

originality of 82 percent, followed by class interval group of 21-25 with originality of 77 percent and the class interval group with the least originality content is 76-80 with just 22 percent and this group has the highest level of plagiarized content with an average of 78 percent.

MEASURE OF CENTRAL TENDENCY

Calculation of Mean and Median

Measure of central tendency refers to the values of the variable that are typical of all the observed value of the data, i.e. a value around which the other values are centred (Egbon, 2010).

It is a measure of the average(s) of the data obtained.

Table 4: cumulative frequency table showing table for mean calculation

Class interval	Mid value (X)	Frequency (F)	FX	$d = \left(\frac{X-A}{h}\right)$	Fd	Cumulative frequency
16-20	18	5	90	-7.5	-37.5	5
21-25	23	20	460	-6.25	-125	25
26-30	28	22	616	-5	-110	47
31-35	33	23	759	-3.75	-86.25	70
36-40	38	20	760	-2.5	-50	90
41-45	43	14	602	-1.25	-17.5	104
46-50	48	17	816	0	0	121
51-55	53	18	954	1.25	22.5	139
56-60	58	25	1450	2.5	62.5	164
61-65	63	20	1260	3.75	75	184
66-70	68	21	1428	5	105	205
71-75	73	22	1606	6.25	137.5	227
76-80	78	18	1404	7.5	135	245
		245	12205	0	111.25	

Where:

X = Mid values

F = frequency

A = assume mean

d = deviation

f = class interval

N = sum of frequency

l = lower limit of the median class

h = class interval

f = frequency of the median class

N/2 = median location

C = cumulative frequency of class before the median class

Mean calculation

$$\text{Mean} = A + \frac{h \sum Fd}{N} \dots\dots\dots(1)$$

$$= 48 + \frac{4(111.25)}{N245}$$

$$= 48 + 1.816$$

$$\text{Mean} = 49.82$$

Median (Md) of the Distribution is given by equation

$$\text{Md} = l + \frac{h}{f} \left(\frac{N}{2} - C \right) \dots\dots\dots(2)$$

To get the location of the median in the distribution (MI)

$$\text{MI} = N/2 \dots\dots\dots(3)$$

$$\frac{N}{2} = \frac{245}{2} = 122.5$$

The value 122.5 in cumulative frequency column of table 3 above is indicative that the median of the distribution is between 51-55 class intervals

Substituting into median equation (2) we have

$$\text{Md} = l + \frac{h}{f} \left(\frac{N}{2} - C \right)$$

$$\text{Md} = 51 + \frac{4}{18} \left(\frac{245}{2} - 121 \right)$$

$$\text{Md} = 51.33$$

The mean and median values are properties of statistical data of random variables. Calculating the means and medians are often a robust way to reduce your many data (numbers) into a single number, one that still capture the essence of your entire set of measurements. An important relation between mean and median can be distinguished from the skewness of data. For a set of data, if mean = median, then it is a symmetric distribution. If mean > median, it is a positively skewed distribution. And, if mean < median, it is negatively skewed (Quora.com).

Negative skew: The left tail is longer; the mass of the distribution is concentrated on the right of the figure. The distribution is said to be left-skewed, left-tailed, or skewed to the left (Dean and Illowsky, openstax cnx).

The mean value is 49.82 percent which is informative that on the average the data analyzed has an almost 50 percent of plagiarism content and an originality of 50 percent also. The distribution is negatively skewed due to the fact that the median (51.33) is greater than the mean which means that the concentration of the distribution is to the right.

CALCULATING DISPERSION

Applying a measure of dispersion, the reliability of the average being used can be assessed.

A small measure of dispersion indicates that the data are clustered closely i.e. around the mean. It indicates that the measure of central tendency used is quite representative of the data and reliable (Shaibu, 2009). The standard deviation is the method adopted to calculate the variability of the distribution.

The standard deviation is one of the measures used to quantify the amount variation or dispersion of a set of data. Standard deviation values is low it indicate that the data tend to be close to the mean and a high standard deviation indicate that the data are spread over a wider range of values.

Standard Deviation (σ) of the Data

Standard deviation (σ) is the most important measure of dispersion or
 $\sigma = 17.88$

variability of the data. For a homogeneous set of data, the standard deviation will be small (Gupta, 2013).

From table 4

$$\sigma = h \sqrt{\frac{\sum Fd^2}{N} - \left(\frac{\sum Fd}{N}\right)^2} \dots\dots\dots(4)$$

$$\sigma = 4 \sqrt{\frac{4945.31}{245} - \left(\frac{111.25}{245}\right)^2}$$

$$\sigma = 4 \sqrt{20.18 - (0.45)^2}$$

$$\sigma = 4 \sqrt{19.98}$$

$$\sigma = 4 \times 4.47$$

Table 4: showing table for standard deviation calculation

Class interval	Mid value (X)	Frequency (F)	d	Fd	Fd ²
16-20	18	5	-7.5	-37.5	281.25
21-25	23	20	-6.25	-125	781.25
26-30	28	22	-5	-110	550.00
31-35	33	23	-3.75	-86.25	323.44
36-40	38	20	-2.5	-50	125.00
41-45	43	14	-1.25	-17.5	21.88
46-50	48	17	0	0	0.00
51-55	53	18	1.25	22.5	28.13
56-60	58	25	2.5	62.5	156.25
61-65	63	20	3.75	75	281.25
66-70	68	21	5	105	525.00
71-75	73	22	6.25	137.5	859.38
76-80	78	18	7.5	135	1012.50
		245	0	111.25	4945.31

The standard deviation of the distribution is 17.88 and since it is low it shows that the mean is a good representation of the data value.

CONCLUSION

Plagiarism is an issue of major concern in all academic and research institutions across the globe and Nigeria is not an exception with several views and ideas.

This research is basically to ascertain the percentage level of plagiarized content in students' project in Edo State Polytechnic Usen.

A total of 245 students' project was collected from the Polytechnic library for plagiarism test. The plagiarism test upon analysis showed that the mean of the data collected was 49.82 which suggest

that the average score for the test was almost 50 percent and inversely the originality of the project was also 50 percent. In line with global practice as it regards to writing and publishing a work of 50 percent plagiarized content is rated poor.

Furthermore, it is observed that class interval group of 16-20 have the least plagiarized content with an originality of 82 percent, followed by class interval group of 21-25 with originality of 77 percent and the class interval group with the least originality content is 76-80 with just 22 percent and this group has the highest level of plagiarized content with an average of 78 percent.

ACKNOWLEDGEMENT

We wish to express our profound gratitude to the Tertiary Education Trust Fund (TETFund) Nigeria for providing the grant for this research under the Institute Based Research (IBR) and also the Edo State Institute of Technology & Management Usen for the providing the necessary platform for this work.

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