Effects of Plagiarism Intervention Program in the Research Papers of Central Mindanao University Students

Rene Marquez Bonifacio

Abstract: Plagiarism is an academic crime of pilfering the ideas of others without appropriate credit. This study aims to identify the dominant type of plagiarism and determine the percentage of plagiarism committed by the CMU undergraduate students using Grammarly, find the reasons why students plagiarize, and examine the effects of the Plagiarism Intervention Program. The study employed content analysis, interview, and focus group discussion to substantiate the results. The analysis of the 328 samples shows that copying without citation is the dominant type of plagiarism, followed by unintentional plagiarism, patchwork plagiarism, and copying with citation. Furthermore, the overall mean percentage of plagiarism is 8.28%. Moreover, 15 out of 328 samples do not show any plagiarism. The students plagiarize because of time constraints, lack of knowledge, and confidence in not getting caught. With the Plagiarism Intervention Program in the writing courses to eliminate the incidence of plagiarism.

Terms: CMU undergraduate students, Grammarly, plagiarism, plagiarism intervention program, reasons for plagiarizing, research paper, types of plagiarism

1 INTRODUCTION

Plagiarism has become a pressing issue in the academic community (Boyd, 2010), most especially in tertiary education. Many students resort to copying and pasting information from various sources without proper citation, paraphrasing ideas without mentioning the source, and creating ideas that do not exist (Department of English at the University of Pittsburgh, 2019; Heckler, Rice, & Hobson-Bryan, 2013) which is a form of "academic dishonesty" (Bowdoin College, 2019). Plagiarism needs to be avoided because it is "unethical, illegal, against all academic codes of conduct, and robs the plagiarizer of important skills" (Stevens Institute of Technology, 2019). In the academe, it is highly challenging to identify whether a person has committed plagiarism without using a plagiarism detector. Because of this problem, various software and website developers have created plagiarism detectors that evaluate whether a person has plagiarized from various sources (Bensal, Miraflores, & Tan, 2013). One of these plagiarism detectors is the Grammarly. Grammarly generates a plagiarism percentage or similarity index, and it does not only reveal plagiarized items, but also checks spelling, grammar, fluency, conventions, conciseness, and clarity (Grammarly, Inc., 2019). However, these features are available to premium accounts only (Grammarly, Inc., 2019). Moreover, the University of Louisiana at Monroe (2019) classifies four significant types of namelv: copying, plagiarism. patchwork plagiarism, paraphrasing plagiarism, and unintentional plagiarism. Copying occurs when someone claims an idea from somebody else without credit; patchwork plagiarism happens

when someone combines different sources into one paragraph without proper citation; paraphrasing plagiarism appears when someone "paraphrases or summarizes another's work without citing the source;" and unintentional plagiarism emerges when someone mentions a different source for the idea he/she has cited (University of Louisiana at Monroe, 2019). There have been various researches that evaluate plagiarism in the written works of the students. For instance, the study of Culwin (2006) entitled Either my Students are getting Naughtier, or the Tools are getting Better! evaluated the plagiarism in the written outputs of the London South Bank University students using the Google-powered OrCheck system within four years. The study shows that in the first year of investigation, 20% of the students have plagiarized 50% of their work. After three years, statistical tests showed very significant differences between the 02/03 data and both of the other years. There was no significant difference between 03/04 and 04/05. Furthermore, the result shows that as the students' year level increases, the plagiarism percentage decreases. Moreover, the study of Badge, Scott, and Cann (2006) entitled A Roll-out of the JISC Plagiarism Detection Service with Biological Sciences Students identified plagiarism in the two pilot studies in the School of Biological Sciences at the University of Leicester using TurnitinUK. The study shows that in the first pilot study, 14 out of 513 students' outputs indicate plagiarism. In the second pilot study, 10 out of 1060 students' outputs display plagiarism. Many students are knowledgeable in conducting researches, but some are not competent in writing. Some students are proficient in writing researches, but some fail to paraphrase and cite their sources properly. Furthermore, the researcher has found few studies on plagiarism, most especially in the Philippines. With the existing body of knowledge in the field of plagiarism, plagiarism detectors, plagiarism technology, and intervention programs to overcome plagiarism, I propose a writing pedagogy named Plagiarism Intervention Program to overcome the incidence of plagiarism in the academic papers, specifically research papers, of college students. To construct this proposition, I evaluate the plagiarism in the research papers of the undergraduate students of Central Mindanao University,

Rene Marquez Bonifacio is a faculty teaching English courses at Central Mindanao University, Philippines. He finished his Master of Arts in English Language Studies at Mindanao State University-Iligan Institute of Technology. E-mail: renebonifacio@cmu.edu.ph

investigate the reasons why students commit plagiarism, and examine the effects of the Plagiarism Intervention Program in the research papers of the students. I conclude this paper by citing the Noticing Hypothesis of Richard Schmidt (2010).

2 REVIEW OF LITERATURE

2.1 Background of Plagiarism

Plagiarism pilfers others' original ideas without proper crediting the source (Langan, 2013; Miller, 2006; Murray, 2002; Szuchman & Thomlison, 2000). It is a type of "academic dishonesty" (Office of the Dean of Students of Bowdoin College, 2019) that has to be eliminated in the academic community (University of Pittsburgh, 2019). Plagiarism is "unethical, illegal, against all academic codes of conduct, and robs the plagiarizer of important skills" (Stevens Institute of Technology, 2019). Students who plagiarize can be identified because of "lack of citation, lack of bibliographic depth, changes in the tone of writing," changes in the writing style, and the work is entirely different from their level (New South Wales Government, n.d.). With that, Szuchman and Thomlison (2000) emphasize different ways on how to avoid plagiarism. First, writers may use quotation marks in copying the idea of someone in verbatim with proper citation. Second, writers may paraphrase by replacing the words with their synonyms and by changing the sentence structure of the original information with an accurate citation. Murray (2002) highlights that paraphrasing involves the combination of different ideas into a more straightforward sentence. A writer must acknowledge the source even though he/she has "put all direct quotes in quotation marks, changed the words used by the author into synonyms, completely paraphrased the ideas...and mention the author's name in the sentence" (The University of North Carolina at Chapel Hill, 2019). The University of Oxford (2019) stresses that students must avoid plagiarism, most especially that they must uphold academic integrity. They must also display a level of scholarly work in their academic papers.

2.2 Types of Plagiarism

The University of Louisiana at Monroe (2019) categorizes four significant types of plagiarism, namely: copying, patchwork plagiarism, paraphrasing plagiarism, and unintentional plagiarism. Copying refers to a type of plagiarism once a writer claims an idea from somebody else without acknowledging the source; patchwork plagiarism takes place when a writer incorporates various sources without proper citation; paraphrasing plagiarism emerges when a writer "paraphrases or summarizes another's work without citing the source;" and unintentional plagiarism arises when a writer changes the source of information that he/she has used in his/her paper (University of Louisiana at Monroe, 2019).

2.3 Acceptable Percentage of Plagiarism or Similarity Index

Plagiarism checkers, like Grammarly, generate a numeric percentage of plagiarism or similarity index. Many scholars debate how much similarity index is acceptable. In a ResearchGate posted question, some scholars believe that a 0% similarity index should be generated, most especially that plagiarism is against the principles of research. Other scholars believe that a 10% similarity index is acceptable. Some researchers also think that it depends on the adviser, panel of evaluators, or the university or organization.

2.4 Grammarly

Grammarly, Inc. (2019) has created a plagiarism-detecting tool that examines a written output by comparing it with different websites on the Internet. It calculates a specific percentage on the extent of plagiarism that has been committed by a writer. Aside from that, there are other features available in Grammarly, namely: spelling, grammar, fluency, conventions, conciseness, and clarity. The setting can also be customized depending on the needs of a writer. However, only a premium account can access these unique elements (Grammarly, Inc., 2019).

2.5 Plagiarism Intervention Program

The Plagiarism Intervention Program is a personalized plagiarism pedagogy formulated by the author. It involves an in-depth process of evaluating and reviewing academic papers using Grammarly. It follows the following procedure:

- 1. The professor discusses synthesis paper writing;
- After the students submit their draft, the professor runs Grammarly Premium to evaluate any committed plagiarism;
- The professor returns the corrected paper with the plagiarism results;
- 4. The professor introduces the Plagiarism Intervention Program, where it teaches the steps on how to overcome the plagiarized items, namely: underline the keywords from the source, replace the keywords, re-arrange the order of the keywords, formulate a new sentence, cite the author/s and year using proper in-text citation, and cite the sources in the Reference section;
- After the students re-submit their improved draft, the professor runs Grammarly Premium again to detect plagiarism; and
- 6. The program stops until a 0% plagiarism result is generated.

3 THE ETHNOGRAPHIC CONTEXT

Central Mindanao University (CMU), located at University Town, Musuan, Maramag, Bukidnon, is one of the top universities in the Philippines, carrying the banner as Center of Excellence in agriculture, biology, forestry, and veterinary medicine, and Center of Development in environmental science, mathematics, and teacher education. Also, it has produced topnotchers in the fields of accountancy, agriculture, chemistry, civil engineering, electrical engineering, forestry, mechanical engineering, nursing, nutrition and dietetics, teacher education, and veterinary medicine, including a consistent 100% passing in the fields of nursing and nutrition and dietetics.

As one of the core functions of the university, CMU adheres to a standard culture of research practices. However, there are occurrences that students plagiarize ideas from others without appropriate citation. With this complicated concern, I formulated the following research questions:

- 1. What is the dominant type of plagiarism committed by the CMU undergraduate students in writing their research papers?
- 2. What is the percentage of plagiarism committed by the CMU undergraduate students?

- 3. Why do CMU undergraduate students plagiarize?
- 4. What are the effects of the Plagiarism Intervention Program on the research paper of the CMU undergraduate students?

4 METHODS OF DATA GATHERING AND ANALYSIS

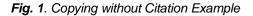
I considered 328 college students enrolled in GEC 15 Purposive Communication last First and Second Semester of A.Y. 2017-2018. As part of the students' major requirement in the course, they were required to construct a research paper relevant to their degrees. To gather substantial data, I employed content analysis (using Grammarly Premium to generate plagiarism results), interview (face-to-face), and focus group discussion (conducted during our classes in GEC 15: Purposive Communication).

5 FINDINGS

5.1 Dominant Type of Plagiarism Committed by the CMU Undergraduate Students

Table 1 shows the different types of plagiarism committed by the CMU undergraduate students using the Grammarly application. Based on the findings of the study, copying without citation obtained the highest number of occurrences on the type of plagiarism committed by the CMU undergraduate students with 1715 or 41.25%. Figure 1 shows an example of copying without citation as the author failed to mention the source of information regarding the background of rice.

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	lowland rice systems. The anaerobic soil environment created by flood-	Publication : USD& 485	1001-000	
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	nutrients. The adequate rates, sources, application methods, and	Publication: USDA ARG, https://www.am.usda.gov/versech/p	E-STarte	
	application times are important factors that influence the productivity and sustainability of rice.	E stanactes (resvous lear)	CONTRACT LAS	
	This review emphasizes the current, research-based knowledge of N, P, K,		renaute	
	Ca, Mg, S, B, Fe, Mn, and Zn management in regards to the efficiency and	 Intel Nation Cost Stat. — were beat broading can at 	104738401	
		sustainability of lowland rice production and identifies where additional		
	research is needed to bridge information gaps. Our goal is to provide a comprehensive review describing the nutritional problems, nutrient use	 Box - Box (Box (Box (Box (Box (Box (Box (Box	CONTRACTAL CONTRACTA	
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	rice producing regions of the world, the basic principles governing efficient	· start - schen a start - start - start - start		
	nutrient use by flood-irrigated rice are relatively constant. A summation of	· State Crawnel Schert States - Pr extension peakets		
	best management practices should help scientists develop practical,	a medicilitar come successive - annear barner	P(#5331)4	5
	integrated recommendations that improve nutrient use efficiency in	 http://withinformation	Printer Paralitation	



Upon checking the website given, which is the USDA ARS, Figure 2 displays that the information:

produced from irrigated-lowland rice systems. The anaerobic soil environment created by flood-irrigation of lowland rice creates a unique and challenging environment. The efficient management of soil and fertilizer nutrientsfrom the said website matched the idea cited by the student. To avoid plagiarism, the student needs to state Fageria, Slaton, and Baligar (2003) as the source of information and paraphrase or use quotation marks upon using the author's idea.

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At this Location	Interpretive Summary:	
Programs and Projects	Technical Abstract: Rice (Oryza sativa L) is an important food crop for a large proportion of the world¿s population. Total rice production will need to increase to feed a rapidly growing world population. Rice is produced under both upland and	
Collaborations	lowland ecceystems with about 76 percent of the global rice produced from intgated-lowland rice systems. The anaerobic soil environment created by flood-infgation of lowland rice creates a unique and challenging environment for the efficient	
Subjects of Investigation	management of soil and fertilizer nutrients. Supplying essential nutrients in adequate rates, sources, application methods, and application times are important factors that influence the productivity and sustainability of rice. This review emphasizes	
Publications	or cremt, meant-based reveloped of N, P, K, Q, Mg, S, B, FA Mn and Z, mmangement in negatios to the efficiency and sustainability of worked nce production and dentifies where additional research in negatios to horge information gas, D or paid is to provide a componential dentifies and the additional research in negatios to horge information gas, D or paids at provide a componential production of lowing information (and the production of negating the information) and the production of lowing information (and the production of negating the degree of mechanization may sup considentially among the nice producting negating us of the work), the based principles governing efficient information and production of lowing the nice producting negating the management practices should they isolitation design practice, integrated recommendations that improve nutrient use efficiency in lowierd rise production spatement.	

Fig. 2. Website Comparison for Copying without Citation

Unintentional plagiarism got the second-highest number of occurrences with 1746 or 35.50%. Figure 3 displays an example of unintentional plagiarism because the author misquoted the source of information. The student cited "(N.K Fageriaa. 2003)" as the source.

SAMPLE NUMBER 1		HIDE ASSISTAN	۰ (
This review emphasizes the current, research-based knowledge of N, P, K, Ca, Mg, S, B, Fe, Mn, and Zn management in regards to the efficiency and	Plagiarism 💀 🗊	PERFORMANCE	
sustainability of lowland rice production and identifies where additional	4% of your text matches this source:	SET GOALS	
research is needed to bridge information gaps. Our goal is to provide a	Publication : USDA ARS		
comprehensive review describing the nutritional problems, nutrient use	https://www.ars.usda.gov/research/publications/public	SPELLING	4
efficiencies, and the production strategies used for efficient nutrient use		GRAMMAR	
and production of lowland rice. While the solls, climatic environments,	Reference data – click to copy Publication : USDA ARS. https://www.ars.usda.gov/research/p	PUNCTUATION	
cultivars, and degree of mechanization may vary considerably among the	Publication - Gran Mile, https://www.ara.usue.gov/researcrop	FLUENCY	
rice producing regions of the world, the basic principles governing efficient	of 3 matches < PREVIOUS NEXT	PLUENCY	
nutrient use by flood-irrigated rice are relatively constant. A summation of		CONVENTIONS	
best management practices should help scientists develop practical,		FORMALITY	
integrated recommendations that improve nutrient use efficiency in	 What Nutrition Does Rice — www.healthyoptions.com.ph 	CONFIDENCE	
lowland rice production systems (N.K Fageriaa. 2003).		CONCISENESS	
Different types of rice provide different textures, tastes and nutritional	 Rice – NutraWiki — nutrawiki.org 	CONCISENESS	
value. Brown and wild rice contain the whole grain, meaning that both the		CLARITY	
germ and the bran of the grain are preserved. Consequently, brown and	 Abakaliki Rice » Bellar Mart — bellarmart.com 	VARIETY	2
wild rice are considered healthier because they contain more nutrients and		VDCABULARY	
fiber. In contrast, white varieties of rice have the germ and bran of the grain	 Science - Organic and Natural Product — biofertilizer.com 		
polished away, which diminishes their nutritional profile, and increases			
their glycemic load, or impact on blood sugar levels.	 Using Organic Nutrient Sources - Pe — extension.psu.edu 	PLAGIARISM	0
	 Nitrogen in the Environment: — extension2.missouri.edu 	PROOFREADER	

Fig. 3. Unintentional Plagiarism Example

The student needs to mention "(Fageria, Slaton, Baligar, 2003)" to prevent unintentional plagiarism. The student misspelled the family name "Fageria" and omitted Slaron and Baligar as authors of the said research. Figure 4 verifies the said claim.

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carleton GHG causes heat to be reflected and remain inc	subted within the planet without being radi	ated - Ocogia Search	Publication : USDA ARS		
ARS-wide	Author				
	 Fageria, N 				
ARS National Programs	 Slaton, N 				
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manuscript	Submitted to: Advances	in Agronomy			
Search for a research	Publication Type: Book	/ Chapter			
project	Publication Acceptance	e Date: 12/10/2002			
project	- Publication Date: 1/1/2	003			
ARS Software	Citation: Fageria, N.K.,	Slaton, N.A., Ballgar, V.C. 2003. Nutrient n	anagement for improving lowland rice productivity and		
	sustainability. In: Sparks, D. L., editor. Advances in Agronomy. New York: Academic Press. 88:63-152.				
At this Location	Interpretive Summary:				
Programs and Projects			p for a large proportion of the world¿s population. Tota id population. Rice is produced under both upland and		
Collaborations	lowland ecosystems with	about 76 percent of the global rice prod	cod from irrigated-lowland rice systems. The anaerobi a unique and challenging environment for the efficient.	ia i	
Subjects of Investigation	management of soil and	fertilizer nutrients. Supplying essential nut	rients in adequate rates, sources, application methods uctivity and sustainability of rice. This review emphasiz		
Publications	our current, research-ba sustainability of lowland goal is to provide a com	and knowledge of N, P, K, Ca, Mg, S, B, F rice production and identifies where addit prehensive review describing the nutrition	e, Mn and Zn management in regards to the efficiency is local research is needed to bridge information gaps. Or al problems, nutrient use efficiencies, and the production	and ur on	
	degree of mechanization governing efficient nutrie	may vary considerably among the rice pr int use by flood-irrigated rice are relatively	i rice. While the soils, climatic environments, cultivars, a oducing regions of the world, the basic principles constant. A summation of best management practices ons that improve nutrient use efficiency in lowlend rice.		
	production systems.				

Fig. 4. Website Comparison for Unintentional Plagiarism

Next, patchwork plagiarism attained the third-highest number of occurrences with 699 or 16.81%. Figures 5 and 6 exhibits an example of patchwork plagiarism because the author combined the ideas from Bellar Mart (n.d.) and NutraWiki (2019) in one paragraph without proper credit, wherein the latter is an unreliable source.

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are essential to be metabolized by the body and turned into function	il,	ET GOALS	
usable energy. The vitamins, minerals, and various organic componer	4% of your text matches this source:		
increase the functioning and metabolic activity of all your organ syste	ms, Abundanti nice " benai mart	PELLING	1
which further increases energy levels.	https://bellarmart.com/product/abakaliki-rice/ 08	RAMMAR	
Cholesterol Free: Eating rice is extremely beneficial; it does not conta	Reference data - click to copy	INCLUATION	
harmful fats, cholesterol or sodium. It forms an integral part of balan			
diet. Any food that can provide nutrients without having any negative	FU	JUENCY	
impacts on health is a bonus. Low levels of fat, cholesterol, and sodiu	ITT will 2 of 4 matches < PREVIOUS NEXT > co	ONVENTIONS	
also help reduce obesity and the health conditions associated with b	eing FO	RMALITY	
overweight. Rice is one of the most widely used and eaten foods in th	e Science - Orzanic and Natural Product. — biofertilizer.com	INFIDENCE	
world because it can keep people healthy and alive, even in very smal			
quantities.	Using Organic Nutrient Sources - Pe — extension.psu.edu	INCISENESS	
Blood Pressure Management: Rice is low in sodium, it is considered of		ARITY	
the best foods for those suffering from high blood pressure and	Nitrogen in the Environment:	RIETY	
hypertension. Sodium can cause veins and arteries to constrict, incre			
the stress and strain on the cardiovascular system as the blood pres-	Soil Ecosystems: The Soil Food — learn.mesaprogram.org	CABULARY	
increases. This is also associated with heart conditions like			
atherosclerosis, heart attacks, and strokes, so avoiding excess sodiu	The importance of soil organic matter - Ho — www.fap.org		
always a good idea.	PL	ASIARISM	¢
Cancer Prevention: Whole grain rice like brown rice is rich in insoluble		UMAN	
that can protect against many types of cancer. Many scientists and	PR	ROOFREADER	

Fig. 5. Patchwork Plagiarism Example (Part 1)

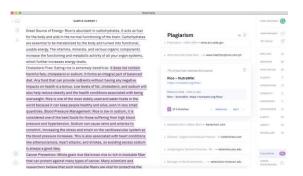


Fig. 6. Patchwork Plagiarism Example (Part 2)

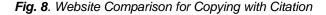
Lastly, copying with citation had the lowest number of occurrences with 268 or 6.45%. Figure 7 demonstrates an example of copying with citation as the student forgot to rephrase the ideas of Sanchez and Richard (2013) which is: Organic matter serves beneficial functions, including minimizing soil temperature fluctuations, serving as a nutrient warehouse, buffering the soil to changing pH, and increasing the ability of the soil to hold nutrients. Additionally, soil structure can be improved along with the ability of the soil to hold water and air. Organic matter can also provide habitat for beneficial soil microorganisms. A soil with optimal organic matter content is better able to tolerate adverse conditions. For example, during drought conditions or when excess water is present, a soil with good organic matter content will rebound quicker than one with low organic matter content. The organic matter content of a soil can be analyzed as an additional test when submitting a soil sample to the Agricultural Analytical Services Laboratory at Penn State.



Fig. 7. Copying with Citation Example

Figure 8 shows the website of Pennsylvania State University to show the similarity of the said idea.

stat to be reflected and	Publication : USDA AR		The Pennsylvenia State University About a Rice - Bater Mart	C Ros - Naturita		e Organic Nutrient Source	8
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serves beneficial func warehouse, buffering Additionally, soil struc Organic matter can al organic matter conter conditions or when ex quicker than one with	tions, including mini the soil to changing ture can be improve so provide habitat fin tis better able to to ccess water is preser a low organic matte onal test when subm	mizing soil ter pH, and incre ed along with or beneficial s olerate advers nt, a soil with a er content. The	Ints between 2 and 5 percent. Org merature fluctuations, serving as asing the ability of the soil to hold the ability of the soil to hold wate of microorganisms. A soil with an e conditions. For example, during a good organic matter content wi a good organic matter content of a soil mple to the Agricultural Analytics	a nutrient d nutrients. r and air. optimal drought I rebound can be			



Based on the findings of the study, a majority of the CMU undergraduate students employed copying without citation in writing their research papers, specifically the introduction, review of literature, and review of related studies. This phenomenon occurred because many students copy and paste information from various sources and they mostly forget to credit the author/s. Furthermore, it can be noted that the CMU undergraduate students did not commit paraphrasing plagiarism. This phenomenon occurred because the Grammarly application could not detect this type of plagiarism, which is considered as a limitation of the study. Also, 15 out of 328 samples did not show any plagiarism. This phenomenon occurred because the Grammarly application was not able to detect any plagiarism, which further suggests that 15 undergraduate students paraphrased the ideas and cited the authors of the said ideas. Overall, the study shows that a majority of the CMU undergraduate students committed copying without citation which implies that most of the students copied some information from various references and did not acknowledge the source of information.

7	TABLE 1	
TYPES OF PLAGIARISM	COMMITTED BY	THE CENTRAL
MINDANAO UNIVERSITY	′ UNDERGRADU	ATE STUDENTS
	$\mathbf{T} \leftarrow \mathbf{I}$	0/

Type of Plagiarism	Total	%
Copying (with citation)	268	6.45%
Copying (no citation)	1715	41.25%
Patchwork	699	16.81%
Paraphrasing	0	-
Unintentional	1476	35.50%

5.2 Percentage of Plagiarism Committed by the CMU Undergraduate Students

Table 2 shows the percentage of plagiarism or similarity index committed by the CMU undergraduate students based on the

computation of the Grammarly application. The findings of the study reveal that the undergraduate students from the College of Forestry and Environmental Science obtained the highest mean of the percentage of plagiarism with 10.56%. The undergraduate students from the College of Business and Management got the second-highest mean percentage of plagiarism with 9.53%. Then, the undergraduate students from the College of Engineering attained the third rank with 9.15%, then the College of Education with 9.10%, College of Arts and Sciences with 9.06%, College of Nursing with 7.78%, College of Agriculture with 7.62%, College of Veterinary Medicine with 6.03%, and College of Human Ecology with 5.66%.

Figures 9 and 10 reveal some examples of the percentage of plagiarism based on the computation of the Grammarly application. Figure 9 indicates a similarity index of 28%, while Figure 10 displays a similarity index of 22%.

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aside from other source of carbohydrates, like corn, cassava, sweet potato, yam, banans etc. Rice provides energy and protein in every individual, as	· Set Economic The Set Field Manufactory and an	Curry	=
well as minerals, vitamins, and fiber, although all constituents except	· The manifestor of the experience of the rate of the experience o		14
carbohydrates are reduced by milling. There are almost 4,000 varieties of rice in the Philippines, but only more	· · · · · · · · · · · · · · · · · · ·	TEMPTON	14
than 300 varieties are in the market and being cultivated for production. But still the production of rice in the country do not have the capacity to	. The linear equation - Further trive $2\pi_{-} \rightarrow $ sees between M		
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Fig. 9. Plagiarism Computation Percentage using Grammarly (Sample 1)

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ž.			SET GOALS	
	Construction in the second sec	2296 of your text matches 22 fragments from 17 sources on the web or in academic databases. One them in MLA, APA, or Chicago formut, or in		
	Sweet potato (Ipomea batatas) locally known as "kamote" is considered as	another style you prefer.	SPELLING	82
	an important cash crop for local farmers as it requires little input in terms		GRAMMAR	47
	of fertilizers and labor. It is a major root crop produced in the Philippines	1% of your text matches this source:		
	and ranks next to rice as a staple food with high nutritive value. It provides		PUNCTUATION	24
	more calories than any other vegetable crop or even staple food like rice	How to Grow Kamote or Sweet Potato	PLUENCY	1
	and corn. It is also rich in protein and vitamin A, especially the yellow flesh	http://www.mixph.com/how-to-grow-kamota-or-sweet	CONVENTIONS	
	variety (Dagoon, 2001).	Reference data - click to copy	00200100000	
	In the Philippines, the demand for sweet potato in fresh and processing	How to Grow Kamote or Sweet Potato. http://www.mixph.com/	FORMALITY	
	market is increasing. It is made into flour, and as baking materials for cakes		CONCISENCES	
	and pastries. Sweet potato is a crop that has slowly emerged from a lowly		CLARITY	
	crop to a popular crop because of its many uses as food, feed and as raw	+ 11 Calcium Rich Foods für Babl www.bumpsnbaby.com	VARIETY	
	materials for industrial purposes (Batalon, 2001).			
	Sweet potato is not only grown as food substitute for rice and corn, it is	595 of usur text examples this source:	VDCABULARY	2
	also a source of raw materials for industrial and sweet potato-based	5% of your text matches this source:		
	processed food items. It can be consumed as food mostly in traditional	How to cook sweet potato or kampte, (yummy,		
	forms like boiled, roasted or fried and as unprocessed feeds. At present,	https://www.youtube.com/watch?v=n3RvOp863IQ		
	sweet potato can be made into semi-processed products for flour, starch,	Pedersogrammentipleseptrom.cuttl www.youtube.com	PLAGIARISM	
	feeds and pectin for local and export market, fruit like products for snack	How to cook sweet potato or kamote (yummy) - YouTube. https	PLAGIARISM	-
	chips and beverages. Freshly cooked sweet potato can be boiled and	Sweetpotate Production Guid., - www.extento.hawail.edu	PROOFREADER	
		af 2 material included and a		

Fig. 10. Plagiarism Computation Percentage using Grammarly (Sample 2)

Furthermore, the overall mean percentage of plagiarism of the CMU undergraduate students is 8.28%. In addition, 15 out of 328 samples indicated a 0% plagiarism percentage. For instance, Figure 11 reveals that the said research did not commit plagiarism.



Fig. 11. Sample Research Paper without Plagiarism

This phenomenon occurred because the Grammarly application was not able to spot any form of plagiarism, which further reveals that 15 undergraduate students reworded the concepts and mentioned the authors of the said ideas. As a whole, the results of the study imply that 313 CMU undergraduate students plagiarized some ideas in writing their research papers.

TABLE 2PERCENTAGE OF PLAGIARISM COMMITTED BY THECENTRAL MINDANAO UNIVERSITY UNDERGRADUATESTUDENTS

College	Mean
Agriculture	7.62%
Arts and Sciences	9.06%
Business and Management	9.53%
Education	9.10%
Engineering	9.15%
Forestry and Environmental Science	10.56%
Human Ecology	5.66%
Nursing	7.78%
Veterinary Medicine	6.03%
Overall	8.28%

5.3 Reasons for Committing Plagiarism

After the corrected first drafts were distributed, I conducted a face-to-face interview. Based on that interview, I found three factors why students commit plagiarism and these are time constraints, lack of knowledge about paraphrasing and in-text citation, and confidence of not getting caught. Of the 328 students, 321 confirmed that time was a major element of why they plagiarized (Pennsylvania State University, 2019; Rochester Institute of Technology, n.d.). Aside from doing their research papers, they had other responsibilities at home and school, like exams to study, assignments to comply, dance practices, washing the laundry, cleaning the house, and cooking of food. It is best shown in the transcripts below.

- Student 12: I really don't have enough time polishing my (research) paper because I had exams the following day. With that, I just copied and pasted information from the Internet.
- Student 25: During that week, our professors gave us a lot of assignments. With my limited time, I researched from the Internet, copy and paste, arrange, edit, then submit.
- Student 48: I don't have much time. We had a dance presentation on that day, so I was not able to

give time for my research paper because of our dance practices. Anyway, it was the first draft so I can still improve it next time.

- Student 67: I was tasked to clean the house on that weekend. I thought I would finish it early. When I checked the time, I realized a huge problem – my research paper. I hurriedly went to the (internet) café and browsed various websites related to my topic. I just combined the different information from diverse sources.
- Student 81: I'm a working student. I have a lot of to-dolists – cooking of food, cleaning the house, washing the dishes, name them, I do them. I don't have the luxury of time, so I just copied and pasted info (information) from the Internet.

Based on the responses of the students, I deduced that the students lacked time management because they were not able to budget their time for their studies and personal affairs. On the other hand, 307 students attested that they plagiarized because they did not know how to paraphrase and use appropriate in-text citation (Pennsylvania State University, 2019; Rochester Institute of Technology, n.d.). Even though these topics had been introduced in their junior and senior high school English courses, some students lacked the capacity to apply these important research skills in drafting their research papers. The transcripts below exhibit this occurrence.

- Student 7: Paraphrasing is challenging for me. When I drafted my first draft, it was a disaster. I don't know how to paraphrase. I just copied and pasted instead.
- Student 34: It's (Paraphrasing is) indeed tough. It was introduced in our junior high and senior high, but I don't know how. As far as I can remember, my groupmates did our research paper before, so I don't know how they did it.
- Student 41: We did not do any research paper in high school, so I don't know how to paraphrase.
- Student 18: I am not aware of any in-text citation formats before, not until I took GEC 15. But, I did not apply it because I forgot.
- Student 26: In-text citation? What's that? [The interviewer reiterated the lesson on in-text citation.] Oh, I was absent at that time. Sorry, Sir. It was not discussed in high school because we did not write any research papers back then. I have to ask my classmates. [The interviewer stressed that this topic could be found in the book.] Ahh okay, I have to read the book then.

Moreover, 305 students affirmed that they plagiarized because they assumed that their professors would not catch them plagiarizing (Pennsylvania State University, 2019; Rochester Institute of Technology, n.d.). They anticipated that their professors would manually check their papers, not

knowing that their professors might use plagiarism detectors like Grammarly. This incidence is best portrayed in the lines below.

- Student 33: I thought my prof (professor) would just manually check our papers. I know Grammarly, but it never came in my mind that he would use it.
- Student 91: I am not fully aware of that technology. Maybe I have to paraphrase then because I have to maintain my grades.
- Student 116: I have to accept the fact that I would get a low grade for my first draft. I assumed that Sir would just check our papers manually. Bad thing he used Grammarly, so I will do better in my next draft.

Based on the findings of the study, it is a huge challenge college professors and instructors to overcome plagiarism because there were students who lack the necessary research skills since there were a few students who did not experience writing research papers during their junior and senior high school education. Also, some students needed further guidance and instruction to cope up with their classmates who had prior experience in writing research papers, specifically paraphrasing and in-text citations. Finally, students committed plagiarism because of wrong expectations – that is their professor would not use a plagiarism detector.

5.4 Effects of the Plagiarism Intervention Program

After the first phase of the Plagiarism Intervention Program, it is noteworthy to mention that the incidence of plagiarism was reduced from 313 to 48. After the second phase, the occurrence of plagiarism dropped to 0. The research papers of the students improved as they applied what they had learned from the program. It was taxing, time consuming, and demanding, but the results were outstanding. I conducted a focus group discussion after the program and asked the students about the improvements in their paper. The select responses of the students justify the positive effects of the Plagiarism Intervention Program.

- Student 14: After the first phase, thankfully my paper passed the plagiarism scrutiny. It becomes easier for me to revise my paper because I only need to paraphrase those with red underlines. I also double-checked my paper manually.
- Student 35: Thank you, Sir! Thank you, Grammarly! From 38% to 0% plagiarism percentage, the program helped me a lot.
- Student 57: In my case, I got a 15% similarity index in my first draft. With the results from Grammarly, I became aware of the items that I have to paraphrase and cite using in-text citations. I also manually checked my work if there were sentences or paragraphs with no in-text citation. The program, indeed, helped my paper and myself. I learned how to paraphrase and use in-

text citations.

6 CONCLUSION

I end this paper with the concept of Richard Schmidt (2010) about the Noticing Hypothesis, which focuses on second language acquisition, wherein language learners acquire the linguistic features of a language through conscious attention. It may not be applicable in this context because it does not focus on second language acquisition, but there is a similarity between the two as the program emphasizes the "conscious attention" of the students towards the plagiarized items found in their research papers. The Plagiarism Intervention Program brought a positive impact to the research papers of the students because they were given a copy of the Grammarlygenerated plagiarism results, which made them aware of the items that they have to apply paraphrasing and in-text citation. With the right application of technology, specifically Grammarly, plagiarism could be avoided which is critical in writing academic papers like research papers, thesis, dissertations, and others. Even though there are limitations on the use Grammarly, specifically identifying plagiarized items in books and other published documents, it could benefit a lot of educators for them to check their students' papers and aid many students for them to apply paraphrasing and in-text citation in drafting their academic papers, and eventually, eradicate plagiarism.

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