

## Plagiarism: Shall We Turn to Turnitin?

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### Abstract

This article explores the use of one of the most popular Plagiarism Detection Software (PDS), Turnitin, to address the problem of plagiarism in the academe, specifically in the context of a private university in the Philippines. To investigate the possible benefits and limitations of the PDS as well as the students' attitudes towards the software, this paper used the argumentative essays (checked via Turnitin) of 31 students in two introductory ESL writing classes along with their responses to two sets of self-reflection surveys. The results of the study reaffirmed certain laudable benefits claimed by Turnitin, while these also revealed a few limitations in the software's promise of detecting plagiarism, especially in the common instances of misuse of the PDS and blurred lines between the concepts of originality and plagiarism. The use of Turnitin was found to engender conflicting attitudes among the students towards avoiding this academic offense. Hence, this paper strongly recommends the careful guidance of stakeholders (teachers and students alike) in the proper use of the promising PDS as well as the re-evaluation of the plagiarism policy or approach of the institution in order to "educate-to-avoid" instead of promoting "detect-to-punish" measures (Starr & Graham-Matheson, 2011b, p. 5) in upholding academic integrity.

**Keywords:** Turnitin, plagiarism, plagiarism detection software, originality, academic integrity

### INTRODUCTION

Plagiarism is an act of accidental, reckless or deliberate imitation or use of somebody else's work for one's benefits without proper acknowledgment of the original author (Kennedy, 2006; Logue, 2003; Moore, 2000). Because copying somebody's work may always be an easier and a convenient option, plagiarism is becoming more rampant in almost all institutions especially in the academe. Weber-Wulff (2008, cited in Vergano, 2011) firmly stated in his study that "plagiarism is a social problem, we need better education on how to properly write and research" (para. 3).

Having said this, it is true that the detection of plagiarism is one of the challenges teachers face in a writing class. Prior to the innovations of Plagiarism Detection Software (PDS), teachers tended to rely more on note cards (submitted or prepared by students), perform manual cross-checking of students' works side by side against references, depend on their familiarity of the students' writing styles and/or execute internet search (via Google or other search engines) to find the sources of suspected plagiarized passages. The process is subjective, unsystematic, and also quite tedious. This problem is compounded in the context of English writing course catering to ESL learners. These students' linguistic competence may exhibit near native ability. Thus, it makes the detection of plagiarism in their written outputs more difficult for teachers.

Fortunately, the advent of technology has led to the development of software systems that help teachers detect plagiarism (Weber-Wulff, 2010). These PDS are indeed welcome innovation especially for the ESL writing course teachers who have long struggled with detecting plagiarism in the students' output. Smarty (2008) listed the top five online plagiarism prevention software: Copyscape, Doc Cop, Plagiarism Detect, Reprint Writers' Tool and Copyright spot. Aside from these software, there are about 49 online services that are available for teachers to check their students' works (Vergano, 2011). With these increasing number of PDS, there have been some scholars like Bull, Colins, Coughlin and Sharp (2000), Carroll and Appleton (2001), and Chester (2001) who have studied the use of these systems for teachers and students. Martin (2005) stated that these PDS have become very useful tools in the academe to lessen instances of plagiarism.

## **TURNITIN**

### **What Is It?**

Among these PDS, Turnitin claims to be “the leading academic plagiarism detector utilized by teachers and students to avoid plagiarism and ensure academic integrity” (Turnitin.com, 2011, para.1). To support this claim, Turnitin boasts of having ten thousand institutions in 126 countries and over a million teachers around the world who are actively using its software (Turnitin.com, 2011). Additionally, it has received much accolades from various studies: Scaife (2007) presented in his study that Turnitin ranked first out of the eleven PDS that he evaluated; Starr and Graham-Matheson (2011a, para. 10) claimed that Turnitin “includes an excellent analysis of survey statistics”; also, Martin (2005) stated that Turnitin “performed flawlessly and met all expectations” (p. 151). In fact, Turnitin is endorsed as “the global leader in plagiarism prevention” designed mainly for instructors across all disciplines that require written work (iParadigms LLC, 2013) as it offers three main tools: OriginalityCheck which ascertains original work by comparing submitted works against the documents in the vast repository of the PDS, GradeMark which enhances feedback through online grading with the use of standard and customized marks, and PeerMark which allows greater student engagement and collaboration via structured and anonymous peer evaluation process. But for the purposes of this current study, the focus shall only be on the OriginalityCheck tool.

### **How Does It Work?**

To use the Turnitin software, teachers will have to request for an individual account through their university's library or any other office designated to manage the Turnitin subscription. After logging in to the main website, <http://www.turnitin.com/>, the teachers are now ready to create their own individual class accounts in their own instructor homepages. The class accounts can then be created using the “Add Class” option featured in the instructor homepage.

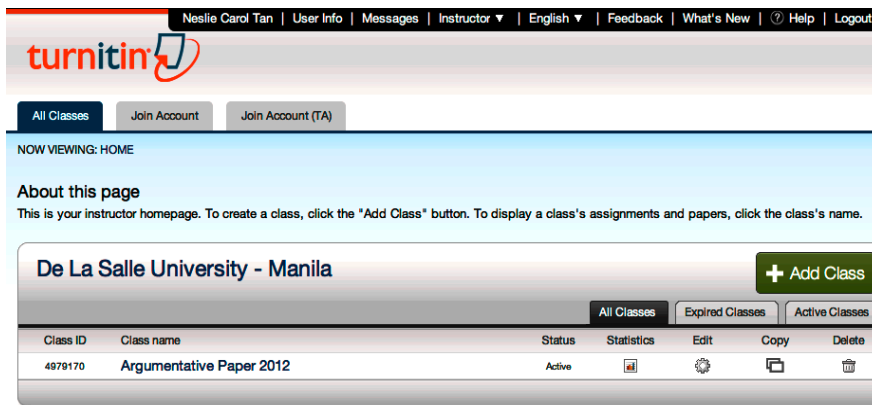


Figure 1. Instructor homepage

From the class homepage, the teachers can then create assignments using the “Add Assignment” option.

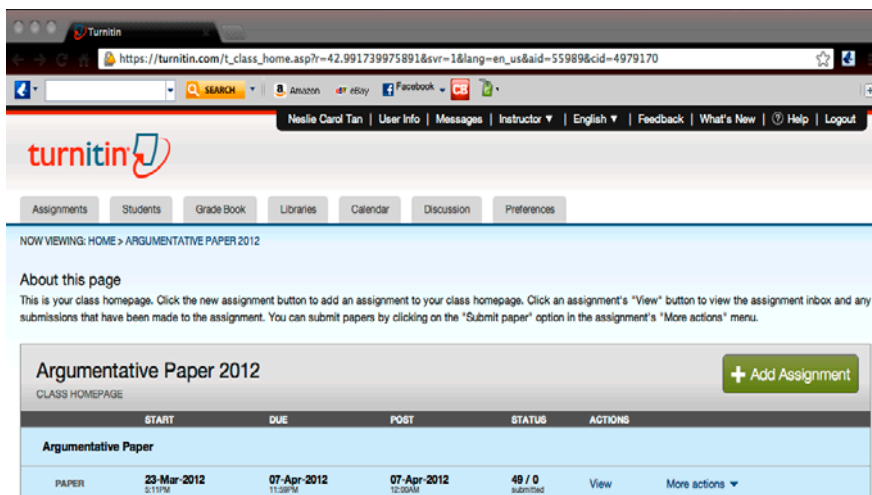


Figure 2. Class homepage

In this section, the teachers enter an assignment title, (i.e., “Argumentative Paper”) and indicate the start and due dates for the assignment. The teacher may also assign a description for each assignment.

turnitin

Dashboard Assignments Students Grade Book Libraries Calendar Discussion Preferences

NOW VIEWING: HOME > ARGUMENTATIVE PAPER 2012 > ARGUMENTATIVE PAPER

**About this page**  
To create an assignment, enter an assignment title and choose the start and due dates for the assignment. If you like, you can enter an additional assignment description. By default, papers submitted to this assignment will be checked against all of our databases. If you would like to create a custom search or view other advanced assignment options, click the "more options" button.

**Update Paper Assignment**

Assignment title

Point value   
Optional

Start date   
at

Due date   
at

Post date   
at

Figure 3. Update paper assignment page

It is in this section that one may adjust the settings for the Originality Report by clicking first the Optional settings button. Then the adjustment options will appear that include the following: excluding bibliographic materials or quoted materials or even small matches from Similarity Index for all papers; allowing students to see Originality Reports; submitting papers to varied storage locations (usually the standard paper repository); and choosing search options (e.g., student paper repository, current and archived internet, and/or periodicals, journals, & publications).

https://turnitin.com/t\_modify\_assignment.asp?r=45.5401913660058&svr=4&lang=en\_us&aid=15161713&ref=

Allow submissions after the due date?  Yes  No

**Originality Report**

Generate Originality Reports for submissions?  Yes  No

Generate Originality Reports for student submissions  Immediately first report is final

Exclude bibliographic materials from Similarity Index for all papers in this assignment?  Yes  No

Exclude quoted materials from Similarity Index for all papers in this assignment?  Yes  No

Exclude small matches?  Yes  No

Allow students to see Originality Reports?  Yes  No

Submit papers to:

**Search options:**

Student paper repository

Current and archived internet

Periodicals, journals, & publications

Figure 4. Assignment optional settings

After the assignment settings are fixed, the teachers can now proceed to the individual uploading of student papers. This includes a simple 3-step process: first, fill-in the basic

details of the submission (e.g., submission method, author type, author name, and submission title) as well as attaching the document.

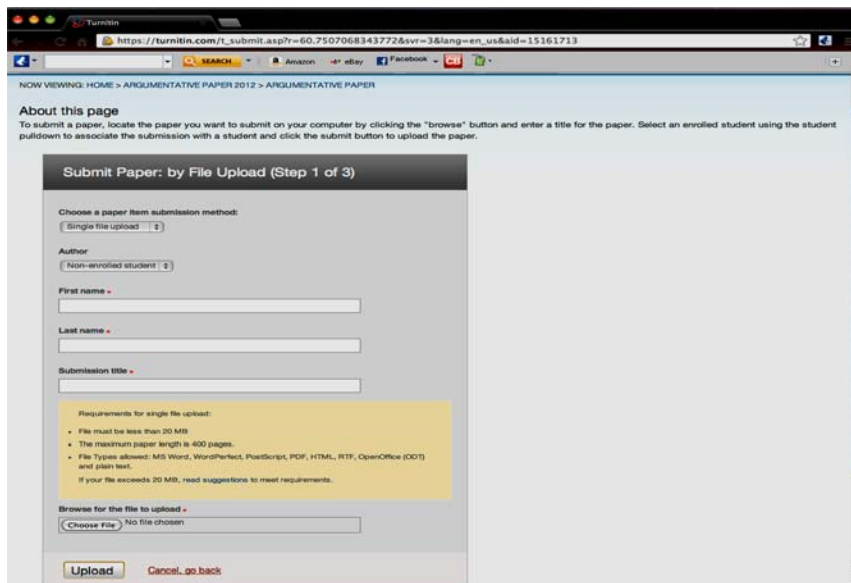


Figure 5. Submit paper step 1: File upload page

Second, Turnitin will generate a preview of the paper for confirmation, then one may click the submit button at the bottom part.

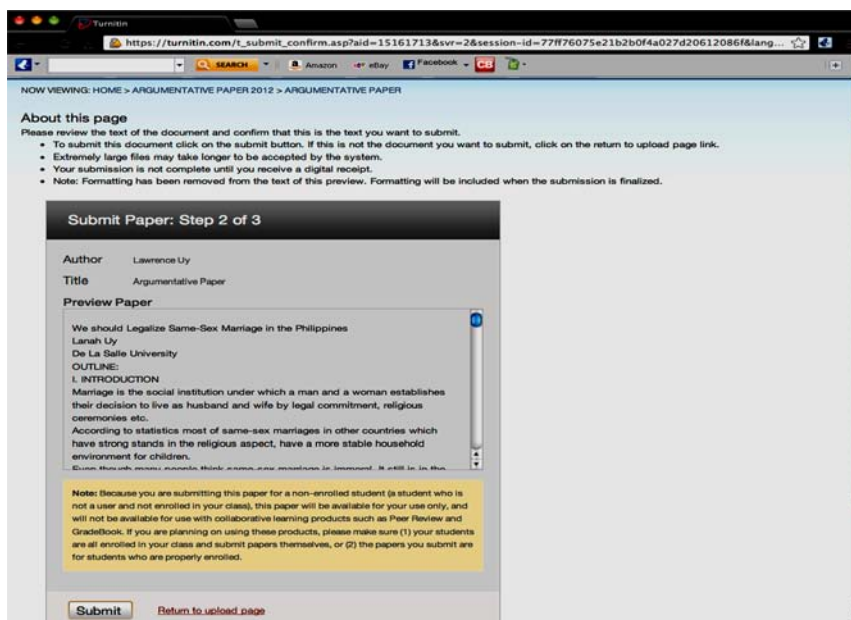


Figure 6. Submit paper step 2: Preview paper page

Lastly, the software will display the submitted paper title, author, and ID number, and present two options: go to inbox or submit another paper.

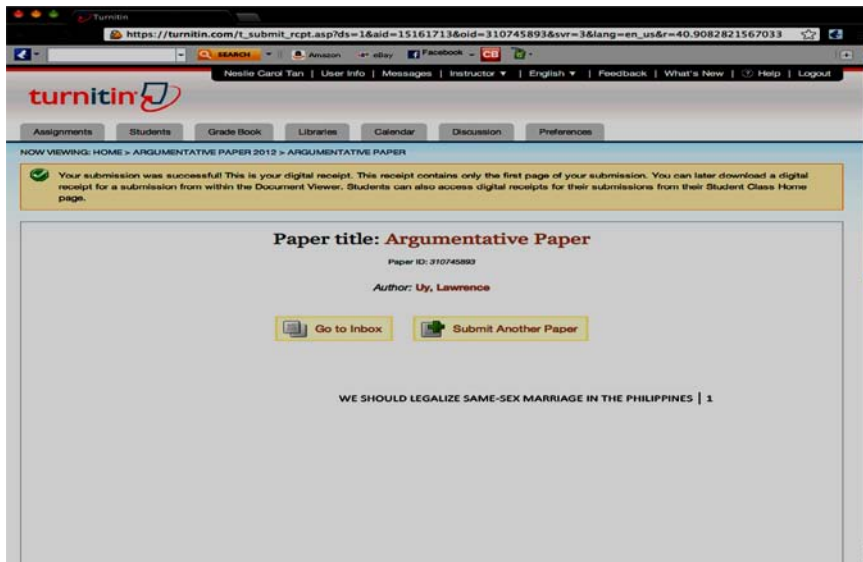


Figure 7. Submit paper step 3: Successful submission page

All the successfully submitted papers will be listed in the inbox that features the names, titles, similarity index, paper ID numbers, and date of submission.

Author	Title	Similarity	Grade	Response	File	Paper ID	Date
Abergos, Renz	Legalization of Euthanasia	50%				237532299	24-Mar-2012
Algenio, Myrtle Anne	Corporal Punishment: Discipline or Abuse	10%				237562771	25-Mar-2012
Briones, Rt. Alec Joh...	Parliamentary is Beneficial for the Phil...	0%				237621958	25-Mar-2012
Buzon, Rhett Jason	Censorship on the Internet	5%				237531696	24-Mar-2012
Cabamus & Monte...	Bilinguals and Memory Recall	87%				263220615	23-Aug-2012
Capio, Carlos Miguel	Anti to Public Smoking in the Philippine...	52%				237531507	24-Mar-2012
Chan, Karen	Intermarriage between the Chinese and Ot...	8%				237533039	24-Mar-2012
Co, Justine Clarence	Gay Marriage	20%				237532760	24-Mar-2012
Collantes, Miguel Al...	Piracy: SOPA and PIPA	24%				237632685	24-Mar-2012
Dimaranan, Jan Jerry	Anti K12	2%				237631705	25-Mar-2012
Dumiao, Louis	Against the Implementation of Nuclear Po...	14%				239503356	02-Apr-2012
Dumiao, Louis	Against the Implementation of Nuclear Po...	14%				239503741	02-Apr-2012
Englis, Franz Marie	Authoritarian rule should be implemented...	7%				237625576	25-Mar-2012
Espiritu, Ralph	We should Legalize Polygamy	11%				241349511	11-Apr-2012

Figure 8. Assignment inbox

The teachers can now review the students' work individually by clicking on a particular student's work. The student's paper can be viewed on the left side of the screen and the matched sources are presented on the right side of the screen. Both document and list of matched sources are color-coded, thus facilitating easy tracing of non-original works that are similar to the files in the Turnitin database.



The screenshot shows the Turnitin Document Viewer interface. The main document content is titled "Legalization of Euthanasia" by Renz Abergos S228. The text discusses the definition of euthanasia and provides an example case of Karen Ann Quinlan. A "Match Overview" panel on the right lists 12 matches with their respective similarity percentages, ranging from 12% to 1%.

Rank	Source	Similarity
1	www.hallsum.com	12%
2	Submitted to Bridgepol...	8%
3	Submitted to Fort Fran...	7%
4	Submitted to Northern ...	6%
5	www.religiouseducatio...	5%
6	Submitted to Brisbane ...	4%
7	www.bignerds.com	3%
8	Submitted to MidAmeri...	2%
9	Submitted to Mountain...	2%
10	Submitted to Fidgeain...	1%
11	epaloids.com	1%
12	www.debatatabase.org	1%

Figure 9. Document viewer with match overview

The Similarity Index rating is indicated in the box displayed at the upper right corner of the document viewer. This rating is important because it shows how much of the student's paper content matches with the documents in the database of Turnitin. The matched items give the teachers a clue which part of the paper may have been plagiarized. This feature therefore eliminates the need to execute Internet search (i.e., Google) and manually cross-check passages against generated references. However, high Similarity Index does not automatically translate to a plagiarized paper. The exact sources that the document matched with must be scrutinized for they may include the student's own draft submitted prior to the final paper. Additionally, to avoid making a sweeping judgment by outrightly saying the paper is plagiarized due to its high similarity rating, teachers may use the Filters & Settings option to screen and/or limit the bibliographic, quoted or small match sizes.

The screenshot shows the Turnitin Document Viewer interface with the "Filters & Settings" panel open on the right. The main document content is the same as in Figure 9. The "Filters & Settings" panel includes options for "Exclude Quotes", "Exclude Bibliography", and "Exclude matches that are less than:" (set to 5 words). There are also "Apply Changes" and "New Report" buttons at the bottom of the panel.

Figure 10. Document viewer with filters & settings options

Technically, students may create their own Turnitin accounts to upload and check their own papers. However, due to time constraints the researchers managed the entire process – from creating the account to sending the generated Originality Report via email. To learn more about the process, features and exact functions of this software, the readers may visit this website: <http://turnitin.com/>.

### **What Do Studies Say?**

Even though some studies (e.g., Martin, 2005; Scaife, 2007; Starr & Graham-Matheson, 2011a) described Turnitin as a “perfect” tool, other research investigations presented a more realistic assessment of the PDS by acknowledging both its advantages and disadvantages (Arnott, 2009; Chew & Price, 2010; Davis & Carroll, 2009; Koshy, 2009). They recognized that saving time, deterring plagiarism, and promoting ethical writing are three of the many advantages of Turnitin. Badge and Scott (2009), Jocoy and DiBiase (2006) and Williams (2007) emphasized that by using Turnitin, teachers could save time cross-referencing their students’ works with the cited and uncited parts of their papers. Students likewise became more careful in writing citations and were discouraged to just simply copy-and-paste information knowing that teachers use Turnitin.

However, some drawbacks of the use of Turnitin include the limited sources, distrust issue and expensive cost. Teachers cannot solely rely on Turnitin because of the limited sources that it has (Locke, 2002). Some parts of the students’ works may not be highlighted as plagiarized because their sources may not have been digitalized yet. Noteworthy, Skinner (2010) pointed out in his paper that tables, figures and images were not recognized by Turnitin. Another disadvantage is that some students may be given an impression that teachers do not trust them and that there was already a presumption that they would cheat or copy some parts without proper citation (York University, 2012). Lastly, unlike other PDS that are readily available online, Turnitin is quite an expensive software because its license needs to be renewed annually. Hafner (2001) cited in her article that Turnitin can cost about \$2000 for colleges to avail its services.

Perhaps this may be one of the reasons why in the Philippines, there are only ten high schools and five universities that have already availed of this PDS (Turnitin.com, 2011). Among these five universities is De La Salle University (DLSU), Manila. Despite the cost entailed in subscribing to Turnitin, DLSU has been availing of this PDS since 2010. This subscription is in line with the university’s thrust to promote academic honesty and integrity by providing opportunities for teaching and learning proper citation.

In the pursuit to determine if Turnitin can be a useful tool in upholding academic integrity in the written outputs of college students, this paper addressed the following research questions:

1. How does Turnitin address the persistent problem of plagiarism in an introductory ESL writing class?
2. What are the possible limitations of Turnitin as a plagiarism detection software?
3. How does Turnitin affect students’ attitudes towards plagiarism and towards the Turnitin software?

### **METHODOLOGY**



## **Materials**

The study used both soft and hard copies of the students' Argumentative Essay drafts. The Argumentative Essay was chosen in particular since this essay requires gathering of sources to support claims. The integration of sources usually poses a challenge on the students' summarizing, paraphrasing, and documenting skills. The softcopy was for checking via Turnitin software for possible plagiarized content and the hardcopy was for the professor's manual checking. Two self-reflection surveys filled out by the students were also used for the study.

## **Instrument**

The originality rating generated by the Turnitin software on the students' draft, the revised essay as well as responses from the two self-reflection surveys were the bases of the analysis of the results for this study. The first self-reflection survey was given after the first drafts were submitted, while the second self-reflection survey was distributed right after the submission of the final paper.

## **Participants**

The participants were 31 students from two English 1 (ENGLCOM – English Communication) classes in DLSU. This course is a general education course that aims to develop the academic reading and writing competencies of freshman students in the university. Each class had an average of 20 students and had a mix of male and female students from different colleges. However, 9 students were not able to comply with the requirements (e.g., very late submission, incomplete forms, and other forms of non-compliance), so their works were not included in this study.

## **Procedure**

The students were instructed to submit online their Argumentative essay drafts to be checked via Turnitin software for possible plagiarized content. Simultaneously, they submitted a hard copy of the same draft to their professor for checking. While waiting for the Originality Report from Turnitin, the students accomplished the first self-reflection survey on the difficulties they had encountered and the documentation strategies they had applied in writing their drafts. The students were informed via email of the originality rating of their drafts as generated by the Turnitin software. Likewise the professor returned the hardcopy drafts with general comments, emphasizing the students' use of quality sources (or lack thereof), and their proper integration and documentation within the draft. The students then revised their works and submitted them to their professor. After this, they answered the second self-reflection by reflecting on their awareness of the plagiarism checker software as well as their own plagiarism tendencies. They also assessed their revision strategies and evaluated the general usefulness of the software in alerting them of plagiarism in their writing tasks.

## **Analysis Procedure**

To answer the first question of whether Turnitin addresses the problem of plagiarism in an introductory ESL writing class, the results from the originality rating generated by the Turnitin software were compared with and analyzed vis-a-vis the professor's general comments on the students' drafts. The students' responses in their first self-reflection survey

(about the difficulties encountered and the documentation strategies used in writing their drafts) then served as further qualitative reinforcements to the researchers' analyses.

To answer the second and third questions about the possible limitations of Turnitin as a PDS and how it affected the students' attitudes towards plagiarism and the software, respectively, the results from the Originality Report generated by the Turnitin software were analyzed and data from the second self-reflection survey were noted. This was done to find out how the students assessed the usefulness and effectiveness of Turnitin. The second reflection survey also gave insights on how the students assessed their own writing and revision strategies after receiving the Originality Report and teacher feedback. It also gave an assessment of the software's general usefulness in alerting students of plagiarism in their writing.

## RESULTS AND DISCUSSION

### Addressing the Persistent Problem of Plagiarism in an Introductory English Writing Class

Subjecting the students' argumentative essay draft for checking via Turnitin clearly gave the students feedback about the content of their essay. The students were alerted on the sections where they were not mindful about acknowledging the source of their information. This, in turn, made the students more vigilant about acknowledging sources. These findings were validated by some students' comments:

- S1: It will give discipline to students to not copy their work which would make them competitive.
- S2: It helps us practice academic honesty
- S25: They get to correct their essays before they turn it [sic] in to their professors.

Likewise, this awareness compelled the students to revise their essays more thoroughly and responsibly in order to reduce or eliminate plagiarism. This has similar feedback with Zeman, Steen, and Zeman's (2011) study. Some of the students' comments that this study received were:

- S7: It helps students improve and see their mistakes. It not only saves time, but it can point out certain texts wherein there is plagiarism.
- S13: It helps the students be more careful in documenting sources.
- S22: They will be disciplined enough to do their work properly.

The students' attempts at eliminating plagiarism were basically focused on the proper citation of sources and the paraphrasing or summarizing of sources. Apparently, these for them, are what constitute plagiarism. Thus, the students resorted to ways through which they could avoid it.

- S7: cited sources; paraphrased some texts; used in-text citations and direct quotes while acknowledging the source
- S13: cited as much sources as I could; formulated my own ideas and wordings before looking for sources
- S16: looked for more sources; used in-text citations
- S17: outlined based on schema; looked for sources

- S18: reread everything; recheck the source to see if I've forgotten to cite some  
 S24: teacher consultations; correct mistakes one by one  
 S29: I made sure I understood the texts; interpret them without using the same words; cited the source

For the teachers, having the students' drafts subjected to Turnitin checking facilitated the detection of possible plagiarized sections in the students' drafts. Likewise, Turnitin also validated teacher's feedback by enabling the students to trace original source documents. This process helped the students view the teacher's feedback about their essay as probably more objective, thus validating the following teacher's (T) comments:

- T to S1: He did not follow APA format in his reference list and in-text citation; the sources he has in his in-text citation are not in his reference list; he mentioned facts/ideas/claims without citation.  
 T to S2: Almost 100% of his work is QUOTED.  
 T to S4: Spelling of the authors' names and years do not tally; he mentioned facts/ideas/claims without citation;  
 T to S5: He did not provide a reference list; he only cited two sources in his essay; three paragraphs should be cited or else credibility of the discussion is questionable.  
 T to S10: He did not follow APA format in his reference list; the sources he has in his in-text citation are entirely different from his reference list.

Through the preliminary use of Turnitin in an introductory ESL writing class, the students became more aware of the value of proper acknowledgment and citation. Additionally, students could easily identify which parts of the essay should be revised. Meanwhile, the teacher was made aware of problem areas that need to be addressed in a writing class so that the students could be helped in their efforts to avoid plagiarism.

### **Possible Limitations as a PDS**

Despite all the commendable efforts of this software in addressing plagiarism in an introductory ESL writing class, it also poses a number of limitations. The first weakness noted is the inability of the software to check citation formats (e.g., APA, MLA, IEEE, and other citation styles). The second weakness is its inability to challenge students to provide sources for ideas or claims that need proof to be considered credible. Turnitin basically just finds passages that match the files in their database. When comparing the software feedback and the teacher's feedback of the argumentative essay drafts – as in the case of S23 (see Figures 11 and 12 below) – one may easily identify comments from the teacher that were not asked or questioned by the software.

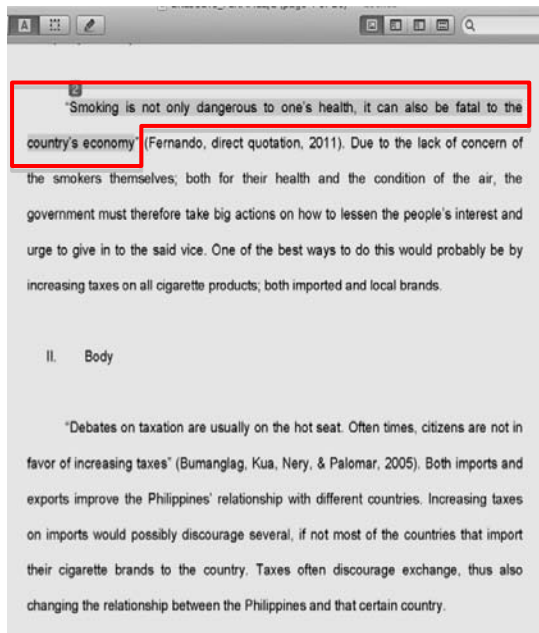


Figure 11. Sample Turnitin feedback

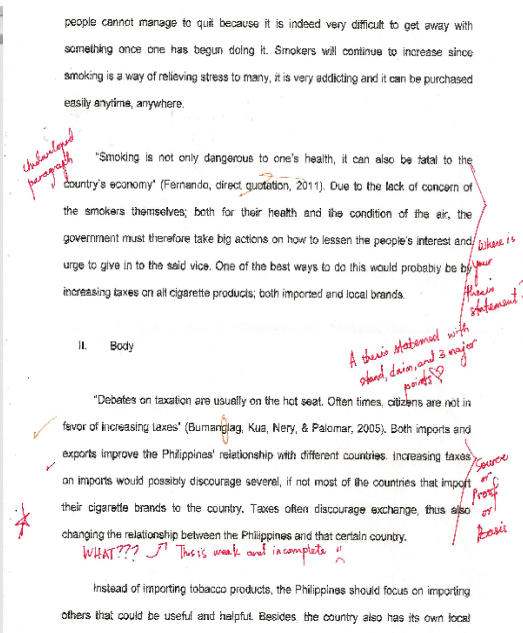


Figure 12. Sample teacher feedback

The Turnitin Originality Report on the left side merely highlighted one passage that is similar to one of the documents in its repository. Meanwhile, the teacher's comments on the right side challenged the inaccurate and inconsistent documentation (parenthetical citations) of the student as well as prompted proper citations for claims that were not merely "stock knowledge" material. This latter limitation thus reaffirms the idea that the software is just a tool (Wright, Owens, & Nigel, 2008), but the teacher is still very much at the helm of the writing class since the former is not programmed to "think" in as sophisticated a manner as a real writing teacher. Hence, the teacher must still carefully screen and evaluate the drafts guided by the alerts raised by the software. Even students recognize the need for teachers to monitor the results generated by Turnitin. One student (S28) remarked: "The teacher should also read it personally so that it wouldn't be unfair for the student who worked hard on it." This reminder is also emphasized in the James, McInnis, and Devlin (2002) survey on the effectiveness of the various PDS used in various universities.

A third limitation of the software is technically not its own weakness per se, but the lack of proper training of its users. There have been criticisms on the "flawed" detection of plagiarism (mostly overdoing it) by Turnitin that were confirmed in the initial phases of this study. James et al. (2002), in their evaluation of various PDS, warn to users carefully check the report generated in Turnitin since "the software detects correctly-cited material as well as plagiarised material" (p. 3). This observation was echoed by a number of students in this study. One student evaluated the software thus:

S4: It's useful for both students and teachers. But it's not all that effective sometimes because it flagged my direct quotations as plagiarized material and sometimes it's better to proofread the work to effectively know if it's plagiarized.

Another study by Koshy (2009) likewise revealed common cases of miscommunication in the implementation of Turnitin by students of a Western University in the Middle East. A number of negative comments from students were received claiming that the matched texts reported

by the software were their own or that the generated websites and other sources were not even familiar to the students. These are familiar comments that also appeared in the surveys given to the respondents in this study.

However, it must be realized that these complaints are only some examples of probable misuse of Turnitin – not necessarily the limitations of the software itself. The misuse of this software has also plagued the initial phases of this research, whereby the teacher-researchers overlooked certain options available in the software upon checking the student drafts. A number of entries resulted in questionably high text matching rates (implying very low level of originality).

Conversely, upon proper exploration and application of the Filter & Settings option offered by the software (filtering out quoted, bibliographic, and small match sizes), the researchers were able to discover the more accurate ratings: the drafts with 99% or 98% Similarity Index ratings went down significantly to more realistic and reasonable 5% or even lower similarity ratings. These filter options could have likewise been explored by previous studies that had raised these seeming “glitches” in the Turnitin software.

These cases highlight the need for thorough teacher (and even student) orientation and training to properly maximize the benefits that this software can offer. Otherwise, it may only cause anxiety and even confusion among the students, as manifested in one strongly-worded evaluation of the software:

S21: It was not helpful at all. I was dismayed with the result of the software. How come all of my words was [sic] highlighted. It was impossible. I even add some of my experiences before and it was still plagiarized.

Also, these cases and complaints may have only arisen because of the students’ confusion about the concepts of originality and plagiarism – the fourth limitation of Turnitin realized in this study. In his 2009 study on the miscommunications as obstacles to the effective implementation of Turnitin in a Western University in the Middle East, Koshy already exposed the wrong notion of the students: they equated text matching as the same as plagiarism. With this misconception, students’ efforts turned towards measures of preventing text matching through tricky and flawed means such as literal paraphrasing and poor summarizing, instead of concentrating on the real message they are trying to convey while maintaining true academic honesty and integrity.

This same confusion appeared in the comments of the students included in this study. Upon receiving a high percentage in the Similarity Index of the Originality Report, one student (S20) wrote: “I really had no intention of plagiarizing; I got low percentage of plagiarism.” In this case, it is quite clear that in the student’s mind, Similarity Index or text matching is the same as plagiarism.

In line with this limitation, Arnott (2009) also had the same misconception as he enumerated the advantages and disadvantages of Turnitin in his online article. Moreover, some teachers who already used Turnitin posted on the enotes.com the same sentiment or notion. One of them wrote that “it red flags anything that’s directly quoted – even those passages that are corrected [sic] cited” (Mrerick, 2008, Msg 2).

However, it must be realized that in the Training page (both for the students as well as the

instructors) of Turnitin.com (iParadigms LLC, 2012), it is clearly explained how the Originality Report and Similarity Index work:

The Originality Report icon shows a percentage and a corresponding color indicating on an index where this percentage falls in terms of matching content. This percentage is the Similarity Index. The higher the percentage, the greater the amount of text in the submission that came up as matching against information in Turnitin's repositories. The percentage range runs from 0% to 100%. The percentage is generated by the amount of similar or matching text compared to the number of words in the submission in total. (para. 2)

It further cautioned:

These indices in no way reflect Turnitin's assessment of whether a paper contains plagiarized material or improperly used material. The Originality Report provides instructors with a tool to more easily locate matching or similar text within the text of a submitted work. The determination and adjudication of proper citation and plagiarism are left solely to the instructor and institution to which the work was submitted. Any questions regarding the definition of plagiarism used at your institution should be directed to the instructor of the class or an appropriate institutional staff member. (para. 3)

This warning specifically delineates the ideas of similarity or originality versus plagiarism. These are not to be treated interchangeably, and careful scrutiny and guidance from the instructor are advised.

Unfortunately, armed with the wrong perception of how the Originality Report works, most of the students in this study, like those in Koshy's (2009) study, scrambled to avoid producing texts similar to any text from the database as much as possible. Their revision efforts (and their reflections about it) born out of this misguided notion of plagiarism were thus the following:

- S2: I no longer saw block quotations in my paper and also only a few words are only quoted directly.
- S3: I don't know if the summarized version I did still has the same idea as how it was supposed to be.
- S14: I have paraphrased many times; one thing I am worried about is maybe there are also some others who has [sic] the same thought as I have.
- S26: I'm not completely sure if I should still paraphrase the parts that involves [sic] laws.

It may be noticed in the above students' comments that their efforts were geared towards avoiding any form of similarity with source texts to the point of doubting whether their resulting summarized version still presented the idea they were supposed to present.

There was one student who took the initiative to clarify the blurring concepts of plagiarism and the similarity index presented by the Originality Report:

- S21: As I searched in the internet about the similarity index, it doesn't determine plagiarize and this got me at ease.

It is fortunate for this lone student that he was enlightened with regard to the distinction of the said concepts, but generally, this confusion on the concepts of plagiarism and originality affected students' attitudes toward plagiarism as well as the software itself.

### **Affecting Students' Attitudes towards Plagiarism and the Software**

Having the student drafts checked by Turnitin may have engendered conflicting perceptions and attitudes with regard to plagiarism and the software itself. On the one hand, the majority of the students have shared their appreciation for the software, positing that it helped promote discipline and a sense of professionalism. Some of their favorable qualitative assessments of the software are as follows:

- S1: It will give discipline to students to not copy their work which would make them competitive.
- S2: It helps us practice academic honesty.
- S3: It helps them know if they have the same idea with another person, so that he/she can cite that source.
- S9: It would act as failsafe software to warn them of accidental plagiarism.
- S15: They can avoid unintentional plagiarism or citing errors.
- S19: Students will have a better understanding of what plagiarism is.
- S27: Students can benefit by checking their papers before submitting it. Not only will they be confident of their work, [but] they will also learn how to write better.

Clearly, these statements show confidence in the software as well as honest appreciation for the benefits it was able to offer them as students and writers.

On the other hand, some students seemed to have grown more confused with regard to the concept of plagiarism. This confusion is manifested in their lack of confidence in their revision efforts. Despite their enumerated strategies (e.g. researching for more sources, paraphrasing and/or summarizing further, and correcting citation formats), quite a number of students still expressed anxiety over their final output:

- S27: I am never confident with my work; there might be paragraphs which [sic] I think I have properly paraphrased, yet are still considered plagiarized, just like when I first submitted my draft.

Some students even grew a little skeptical about the usefulness of the software:

- S13: I do not find these softwares [sic] 100% reliable. In my case, some of my wordings were similar to other writers; however, this does not mean I have copied ideas from other writers.
- S23: It depends but maybe not to argumentative essays because there are a lot of technical terms in such essays because sources come from organizations and experts. Changing their statement sometimes destroy it even more.

Others also may have grown wary of the software as shown in how a student questioned the concept of originality:



- S23: To say that my paper exhibits originality sounds kinda [sic] odd to me because ideas move around and about, nobody knows where it originally came from.

Herein lies perhaps the most problematic aspect of the Turnitin software – it claims to detect *plagiarism*, but it does so by rating the *originality* of a paper (or the rate by which one’s paper is *similar* to another existing work in the vast database of Turnitin). It therefore raised some confusion among the students if the concepts of originality and plagiarism are the same. This confusion may have led to misguided revision efforts explained earlier: focusing on the techniques of rephrasing to evade high percentages of Similarity Index ratings more than trying to explain the real concepts in their paper guided by a real sense of academic integrity.

Again, the importance of proper execution and thorough explanation of the use and the role of Turnitin software in the writing process cannot be overemphasized. Otherwise, there is a risk that teachers may “introduce a culture of conflict and generate complaints” (Frazer, Allan, & Roberts, 2004, p. 7). Students may develop a sense of fear of and anxiety over plagiarism without understanding what it really means. Turnitin, instead of becoming part of an effective “educate-to-avoid” approach to promote academic honesty, may be construed as a fearsome “detect-and-punish” approach to plagiarism. These two approaches were distinguished by Starr and Graham-Matheson (2011b, p. 5) in their evaluation of this PDS in Canterbury Christ Church University. This perceived policing role of Turnitin was made more obvious in the students’ responses on how they thought the PDS benefited the teachers:

- S3: Teachers will know if the student just copy pasted their work.  
 S11: It helps them catch students blatantly copying others' work.  
 S25: They get to identify who are the intellectual thieves.  
 S29: Teacher will instantly find out plagiarized work.  
 S30: Teachers can easily detect if a student committed plagiarism and it will make their jobs easier.

Another misconception noted by the researchers was some students’ idea that teachers use the software to evade work:

- S8: It saves the teacher the trouble of checking the papers of the students, so it also saves the teacher more time for other matters.  
 S10: To make their work easy and to help them check the paper of his/her students  
 S19: The teacher no longer need [sic] to give a lot of effort in checking papers.

This misconception creates the illusion of lazy teachers using the software to avoid having to check papers, whereas the reality is that having the papers coursed through the software is actually an *extra* (albeit proactive) work/step in the list of the teacher’s tasks in checking student papers.

With all these conflicting student perceptions on the use of Turnitin, a student carefully concludes the value of the Turnitin software:

- S28: It can validate the originality of a student's work, but it *is not good to rely on it completely* [emphasis added].

The general attitude towards Turnitin is conflicted: it is a good tool to alert teachers and students to any form of plagiarism (by investigating the highlighted similarities with other texts), but it may be deemed to have been a bit overzealous in its “policing” efforts. Therefore, it has inadvertently promoted a wary attitude towards plagiarism among the students as manifested in their revision efforts and survey responses.

Overall, using Turnitin was a good strategy since it promoted vigilance among the students and facilitated the checking/detection process, but at the same time, the confusion it generated may have been a drawback. Perhaps a clearer explanation is needed to clarify what the Originality Report ratings meant and implied about their writings, and a coherent synthesis discussion after the whole writing process could also benefit the students.

## CONCLUSIONS AND RECOMMENDATIONS

As suggested by previous studies (James et al., 2002; Koshy, 2009; McAvinia, 2006), plagiarism detection software, such as Turnitin, serve to help minimize instances of plagiarism and inculcate a sense of vigilance among students and teachers alike in upholding academic integrity. This belief is confirmed in this study whereby benefits like increased awareness on plagiarism and originality as well as greater care in integrating various researched material were realized by the students. Further, this software facilitated the previously tedious process of detecting plagiarism in ESL writing classes. The Originality Reports also serve to support the cautionary comments of the teachers in student drafts, thereby strengthening the teacher’s credibility.

Based on the results of this study, however, it cannot claim that plagiarism was totally eliminated. Understandably, ENGLCOM is an introductory ESL class whereby the students are just being oriented on the rudiments of academic writing. Although the university considers plagiarism as a major offense, the teachers of this course exercise maximum tolerance in dealing with plagiarism. The students are not meted out with an automatic failure in the course or any disciplinary actions. Instead the students are given ample feedback, warning, and chances for revision of their problematic output.

Turnitin is obviously not yet perfect software because of the limitations that were mentioned earlier in this paper. First, it is unable to detect improperly cited text and to countercheck sources mentioned in the in-text citation with the reference list. Second, it also cannot highlight pieces of information that need citations. Third, its complex program/system often lends itself to some forms of misuse from its users. And lastly, its very nature of “detecting plagiarism” by reporting the level of similarity of a text with its vast database often creates some form of confusion on concepts of similarity/originality versus plagiarism. This confusion often leads students to resort to misguided tactics in evading high percentages in the similarity index, instead of paying greater concern over clarity in writing while maintaining academic honesty. These limitations should not be neglected because Turnitin has all the potentials to perfectly aid the teachers to tap the confidence and competence of every student writer in the ESL writing class.

Therefore, special attention must be paid in monitoring such software. There are a few caveats that may serve as recommendations for the proper use of Turnitin. First, Turnitin merely presents the percentage of similarity of a document to other existing works in its repertoire. Hence, “manual checking and human judgment are still needed” (James et al., 2002, p. 1) and

teachers are “to support writing, and offer formative feedback, rather than focusing purely on plagiarism detection” (Flynn, 2010, p. 23). This distinction must be clear to users of the PDS. As Starr and Graham-Matheson’s review (2011b) has recommended and this study now reaffirms, there must be proper training of teachers and concerned staff in analyzing and interpreting Turnitin Originality Reports in order to more competently guide students in their writing process, specifically in terms of avoiding plagiarism. Aside from this formal training, academics must also take the initiative to carefully read the provisions and guidelines presented and clearly explained in the Turnitin website to avoid misuse of the software (e.g. overlooking certain filter options and other settings) (Koshy, 2009). Furthermore, teachers’ computer literacy and “technological competence” should be considered because “good software is not linear in nature... users need to... explore it in some depth” (Burston, 2003, p.35). As Ramanair and Sagat (2007) put it, it is important to consider teachers’ positive attitude and upgraded knowledge in technology to better facilitate innovations.

These measures are important in avoiding “a culture of conflict” as Frazer et al. (2004) cautioned before. This warning leads now to the second point of consideration: the plagiarism policy or approach of the institution. As previously raised by Koshy (2009) and Starr and Graham-Matheson (2011b), this study likewise encourages the review of an institution’s plagiarism policy in order to correctly situate the use of Turnitin. Ideally, this PDS (and other PDS for that matter) must be used to educate-to-avoid plagiarism, and not to strive for detect-and-punish tactic which does not serve to promote a healthy learning environment nor a positive outlook and attitude towards developing academic honesty and integrity. The policy of the institution may then inform the proper training of its teachers and other concerned academic staff. With the collaborative effort of all the stakeholders, Turnitin can be packaged and marketed as a positive educational tool. As an extension, it also offers teachers a good opportunity to expose themselves to a computer application software that could compel them to “improve their personal level of computer literacy and competency and gain online experience contextually relevant to their teaching situations” (Son, Robb, & Charismiadji, 2011, p. 34).

The third recommendation is closely tied to the first two points presented. This study firmly agrees with McAvinia’s (2006) proposal to adopt an “inclusive approach” (p. 3) in the use of Turnitin whereby students are part of the whole process of orientation and application of the software and they are allowed opportunities to check their works whether or not it is used or required by their subject professors. This recommendation may be a good measure in addressing student misconception and anxiety over the use of PDS such as Turnitin as it democratizes the use of the software and opens it for student exploration and learning process. In this manner, it may likewise complement the educate-to-avoid policy on plagiarism, especially in introductory ESL writing classes where students are just in the initial stages of learning the conventions of academic research writing as well as just developing a true sense of academic integrity. By adopting this inclusive approach, students may perceive Turnitin less of a threat to their writing process and more of a useful research writing aide.

The fourth recommendation is concerned with the research methodology. This study did not perform a quantitative comparative analysis of draft versus final essays. Rather this study conducted a descriptive analysis on how the software addressed the problem of plagiarism in the writing process, its limitations, and the students’ attitudes towards plagiarism. Future studies may perform a quantitative analysis comparing draft against final outputs for more concrete measures of plagiarism.

As can be noted in the list of recommendations, this study recognizes the merits and the limits of Turnitin. If all stakeholders are properly trained, the works are correctly assessed and the whole process is appropriately implemented, this PDS could be a potent part of the cyber educational change (Johnson, 1999). It allows everyone (teachers, academic staff, and even students) a deeper understanding of the nature of an online learning environment in relation to responsible writing practices. Ultimately, Turnitin can and should be used to promote real academic integrity.

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