The Contribution of Plagiarism Detection Tool to Students' Academic Writing Behavior

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Abstract: The technology application for English as a Foreign Language in tertiary education can be a double-edged sword. On the one side, it offers unlimited access to various open sources which intensifies plagiarism opportunity. On the other side, technology generates software tools to combat the academic dishonesty practices. This study aimed at investigating the benefit of a primary plagiarism detection tool, Turnitin, to the students' academic writing behavior. More specifically, this study sought the students' attitude towards plagiarism, the application of the plagiarism detection tool and the contribution of Turnitin to their academic writing behavior. Employing exploratory study, this small-scaled investigation exploited the benefit of technology to gather response from 18 students enrolled in an Academic Writing Class in a language centre in Indonesia via online questionnaires and interview. The findings showed that while the students viewed plagiarism negatively, they deemed Turnitin positively to encourage academic honesty. This research demonstrates that Turnitin is likely to promote positive behaviour in writing in academic context.

1 INTRODUCTION

The advancement of technology in the academic writing in English as a Foreign Language (EFL) setting contributes in both negative and positive directions. Due to the timely copy-paste access provided by the Internet, the issue of unacceptable digital text borrowing, which is cultural and contextual in nature, escalates (Ledwith and Rísquez, 2008; Pennycook, 2016; Walker, 2010). Nonetheless, there are various tools to examine the academic dishonesty practice, one of which is Turnitin.

Studies across the education settings in the UK, US, Ireland and Hongkong suggest that such tool should be utilized as an education tool (Ledwith and Rísquez, 2008; Youmans, 2011; Vie, 2013; Chew, Ding and Rowell, 2015; Pennycook, 2016). Likewise, care should be taken in several aspects, such as the interpretation of the similarity report (Chew et al, 2015; Paul, 2012; Walker, 2010) and ethical issue (Youmans, 2011; Vie, 2013).

Presented these facts, the current study aimed to balance the investigation by providing insight from the EFL setting. This study sought the educational benefit of Turnitin, i.e. to foster the students' positive academic writing behavior. More specifically, this

study examined the students' attitude towards plagiarism, the application of the plagiarism detection tool and the contribution of Turnitin to their academic writing behavior. The next sections will subsequently describe some research which investigated the use of software to mold students' academic writing attitude as well as behavior and the method of this research.

2 LITERATURE REVIEW

Pennycook (1996) proposed the fact that writing in second language learning context should be regarded as a process of words borrowing. However, boundaries of acceptable and unacceptable need to be flexibly set. Therefore, the issue of plagiarism among language learners needs to be educational in nature, not punitive. Also, it is important to highlight that the timely cut-paste practice is highly cultural (Pennycook, 1996; LoCastro and Masuko, 2002).

Attempts to reveal the students' attitude towards plagiarism have been made and several looked through the cultural perspective. On a study conducted by Ehrich *et al.* (2014), it was found that Australian and Chinese students who study domestically had negative attitude towards

plagiarism. Nevertheless, the Australian students had a significantly more negative attitude towards plagiarism compared to the Chinese students. They highlighted the cross-cultural attitudes the two group hold that the Chinese students were permissive towards inappropriate text borrowings that were conducted with permission and under heavy workload conditions. This might reflect the collective responsibility the Chinese community holds compared to the individual stance of Australians.

Likewise, LoCastro and Masuko (2002) who disclosed Japanese students' view on plagiarism found that aside from the lack of L2 language proficiency and training, their attitude was shaped by sociocultural factors. This is due to the fact that prior to WWII, only the elites were able to go to school and that the Japanese curriculum has focused on the content knowledge that it does not teach basic academic skill, i.e. writing.

In line with these findings, a study conducted in Malaysian tertiary education setting also found that the students admitted their acts of academic dishonesty. Unexpectedly, following one semester of formal instruction on academic reading and writing, the participants' view on plagiarism was unchanged (Law, Ting and Jerome, 2013). The study measured the students' attitude by the penalty they prefer and the fact that they preferred counselling despite their misconduct shows that their attitude is culturally shaped.

Another body of research looked into the students' authorial identity as a measure the students' unintentional plagiarism (Pittam *et al.*, 2009; Ballantine and McCourt Larres, 2012). The parameters of authorial identity were 'confidence in writing', 'understanding authorship' and 'knowledge to avoid plagiarism'. The participants in both studies had under-developed authorial identities which were likely to correlate with their status as learners.

In regards to the growing students' improper text borrowing which opportunity is enlarged by the Internet (Pennycook, 2016), there are many strategies that language teachers can utilize to educate, if not to eliminate the academic dishonesty practices. One of the strategies is using plagiarism detection software as part of the pedagogical practice to foster negative attitude and practice towards plagiarism. As research suggest (Ledwith and Rísquez, 2008; Youmans, 2011; Vie, 2013; Chew, Ding and Rowell, 2015; Pennycook, 2016), such software should be used for education purpose.

Turnitin is a primary plagiarism detection tool which is popular and convenient. It is licenced in 126 countries and available in 10 languages (Stapleton,

2012). It generates "similarity report" that is easy to read and colour coded as well as scores for students' work (Dahl, 2007). The report highlights the similarity of the text to the sources in the Internet and their database, displays the similarity in percentage and shows the sources' websites. Likewise, the software is time-saving (Vie, 2013).

Several studies across education contexts revealed mixed results of the effectiveness of Turnitin in combating the academic dishonesty. In English as the first language education contexts, Ledwith and Rísquez (2008) and Chew, Ding and Rowell (2015) found that Turnitin discouraged the students to plagiarize. The Irish students participated in the research conducted by Ledwith and Rísquez (2008) generally had positive attitude towards Turnitin. Also, there was a decrease of Internet plagiarism. The students, nevertheless, had greater awareness about the academic dishonesty practises. The awareness made them feel more responsible that they were forced to put extra effort into writing. Similarly, Chew, Ding and Rowell (2015) believed that Turnitin promote a good assessment for learning utility.

Nevertheless, experiment in the U.S. setting found that despite the treatment, there was no difference in the academic dishonesty practices among the experimental and control group. Therefore, it is suggested that Turnitin failed to promote students' plagiarism (Youmans, 2011). Inversely, an experiment conducted in second language graduate learners in Hong Kong revealed that there was a significant difference in the plagiarism that Turnitin successfully deterred students to plagiarise (Stapleton, 2012).

All in all, these varied findings show that students' academic dishonesty is highly cultural and attempts to instil writing ethics to students are greatly contextual. Moreover, findings across studies show the value of Turnitin towards students' plagiarism. Therefore, it is worthwhile to consider Turnitin as an alternative to promote positive academic behavior. This study offers a perspective of the use of Turnitin as a tool to instil academic writing positive values and practices in Indonesia context.

3 METHOD

This research used a qualitative methodology including online questionnaire and interview to explore the benefit of Turnitin to students' academic writing behaviour. The participants were 18 Indonesian master's degree scholarship awardees from different majors. They enrolled in the Academic

Writing Class which was part of a 6-month-English language training program in a language centre in Indonesia. They were trained several techniques to avoid plagiarism, such as paraphrasing, in-text citation, quoting, and referencing. One of the final assignments was research essay. They were well-informed about the use of Turnitin to check the originality of their essay.

To gather their attitude towards plagiarism and application of Turnitin, an online open-ended questionnaire was developed in Google Forms application and distributed via email. These data were supplemented by audio-recorded, semistructured interviews with the participants of approximately 10 minutes. These interviews queried their perspective on Turnitin (i.e., what are the possible reasons for plagiarizing? Have you intentionally or unintentionally plagiarized? Have you heard about plagiarism detection tool, such as Turnitin, prior to the class? How do you feel about examining the similarity of your essay through Turnitin? and How Turnitin change your view on plagiarism?)

The data were analyzed inductively (Creswell, 2012) and were coded line by line and compared among the data to capture the participants attitude towards plagiarism and Turnitin as well as the effect of Turnitin towards their academic writing behavior.
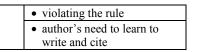
4 RESULT AND DISCUSSION

4.1 Plagiarism: Students' Attitude

The majority of participants (n=17) were familiar with plagiarism due to the information given during their undergraduate study. In the Academic Writing Class, they were provided with further information and practices regarding techniques to avoid plagiarism. The questionnaire and interview revealed that they showed strong attitude against academic dishonesty. As presented in Table 1, they claimed that plagiarism is unacceptable, disrespectful, rule violation, and untrustworthy.

Table 1: Students' attitude on plagiarism.

Plagiarism is …	• stealing ideas
	• disrespectful
	• unrecognized works & disrespectful
	• copying
	• unacceptable
	• useless & untrustworthy
	• a mistake
	• violating the rule
	• author's need to learn to write and cite

This finding demonstrates that they highly value ideas and effort in producing a text. They also believed that original ideas might no longer exist that academicians have been modifying previous works. Therefore, the participants highlighted the need for proper recognition of others' works as to appreciate their works. Indeed, Pennycook's (1996) emphasise on the border between acceptable and unacceptable text borrowing indicates the inexistence of originality and confines the importance of authorship recognition.

The participants' negative view on plagiarism was also reflected in their text ownership. Interestingly, the participants of this study had strong text ownership in the context of published works but were permissive towards plagiarism in the context of class assignments. In the context of published works, such as journal articles, the participants emphasized on the mutual benefits, i.e. popularity and ranks, the authors and cited works would gain. In contrast, few of them (n=5) expressed an ample amount of understanding towards unattributed textual borrowings in class assignments because they valued collaboration.

This is in line with the highly cultural and contextual factors related to text ownership and plagiarism attitude (Pennycook, 1996; LoCastro and Masuko, 2002; Pittam *et al.*, 2009; Vie, 2013; Ehrich *et al.*, 2014). As opposed to the highly text ownership among students in the US (Vie, 2013) and European countries (Pennycook, 1996; Ledwith and Rísquez, 2008), the participants of this study had mixed text ownership relative to the contexts as found in studies conducted by Pittam *et al.* (2009) and Ballantine and McCourt Larres (2012).

All in all, the participants' plagiarism attitude is shaped by their text originality concept and text ownership. They admitted the unoriginal nature of texts and the need for recognition that they viewed plagiarism negatively.

4.2 Turnitin: Students' Attitude

Turnitin is a primary plagiarism detection tool widely used in high education institutions across the globe. The participants generally had positive attitude towards Turnitin. Research looked into the use of Turnitin suggested that it should be used as a support tool in recognising the plagiarism (Ledwith and

Rísquez, 2008; Stapleton, 2012; Heckler, Rice and Hobson Bryan, 2013; Chew, Ding and Rowell, 2015).

The participants, who were equipped with anti-plagiarism strategies during the class, admitted their confidence in writing. Despite their knowledge and confidence, the participants claimed to be cautious over the result of their similarity check by Turnitin. As, summarised in Table 2, Turnitin was an alarm which allowed the participants to be aware of the proper citation, paraphrase, and reference of their text.

Table 2: Students' attitude on Turnitin.

In what way Turnitin helps you to detect and avoid plagiarism?	Will you use Turnitin in the future?
• Very good & detect plagiarism • Facilitate plagiarism detection • Very good: detects plagiarism & stimulates creativity • Cautious in citing • Builds awareness of plagiarism • Good: promotes honesty • Very good: promotes innovation • Very helpful • Good: detect plagiarism & allows revision • Good: appreciate others' works • Very good: it's an alarm	• Yes • Yes, it is convenient compared to manual checking • Yes, because we need to keep text originality
Not convincing	Yes

They admitted that Turnitin helped them to detect the extent to which they have or have not plagiarized. The participants were also willing to continue to apply Turnitin following the Academic Writing Class. Their text ownership was also reflected in their attitude towards Turnitin that they emphasized on the need to appreciate originality. They also appreciated the convenience of Turtinin compared to the time-taking manual originality checking. A participant, though, claimed the similarity check of Turnitin was not convincing in regards to scrutinize the academic dishonesty. Interestingly, he would use Turnitin in the future. He further explained that he was reluctant of Turnitin due to the lack of experience in using it, but he was willing to use it because of his attitude against plagiarism.

It can be concluded that the Turnitin's originality report alarmed the participants about their potential plagiarism. They deemed the Turnitin positively and they would use the plagiarism detection tool subsequently.

4.3 Turnitin and students' writing behavior

The questionnaire and interview disclosed that Turnitin extended to have educational implication (Ledwith and Rísquez, 2008; Youmans, 2011; Vie, 2013; Chew, Ding and Rowell, 2015). Table 2 presents the areas at which Turnitin impacted: creativity, innovation, honesty and appreciation of other works.

In regards to the pedagogy, the Turnitin's similarity report allowed the participants to reflect on their writing and revise accordingly. They admitted the instant copy-paste from digital sources provides some conveniences but they claimed that the report encouraged them to be creative and innovative with the vocabularies or structures (Table 2). Therefore, their writing skill grew as they revised their own writing. Interestingly, participants (n=2) pointed out that authors' ability to paraphrase exhibit their understanding of the subject matter and writing ability. Thus, by applying the anti-plagiarism technique, their writing skill is also enhanced (Chew, Ding and Rowell, 2015). Lastly, the originality report helped them identify the sources of plagiarism which instilled the knowledge of plagiarism boundaries (Youmans, 2011).

Similarly, the use of Turtinin intensified the participants' integrity in writing in academic context (Walker, 2010). The participants, whose text ownership is high, had greater responsibility and appreciation towards others' works and their own works (Ledwith and Rísquez, 2008). They reflected that writing is a difficult task which requires ideas, skills, knowledge and efforts. Therefore, it is important to recognize such difficult task.

Overall, Turnitin fosters the participants writing skill and knowledge by encouraging them to be creative with vocabularies and structures as well as enhances their plagiarism knowledge by identifying the plagiarism sources. Finally, Turnitin improves the participants' accountability as authors.

5 CONCLUSIONS

This study attempted to reveal 18 Indonesian master's degree scholarship awardees' attitude towards plagiarism and the application of a primary plagiarism detection tool, Turnitin. This study also

explored the contribution of the tool to students' academic writing behaviour. Nevertheless, this study is not sponsored by the company and is not attributive to the company. The application of Turnitin is limited to the similarity report and conclusion is limited to the context of the participants of this study. It was found that the participants' viewed plagiarism negatively and their view is prompted by their strong text ownership. In regards to Turnitin, the similarity report raises their awareness of plagiarism boundaries and extends their writing skill and knowledge. Turnitin also instils the participants' integrity as authors.

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