

The Attitude toward the Use of Turnitin's Anti-Plagiarism Software

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Abstract. This study aimed to investigate students' attitudes toward the use of Turnitin, plagiarism detection software. The participants involved in this study were the students participating in IT Literacy lecture involving 38 people. Using questionnaire arranged by adapting Dahl's (2007) questionnaire, it obtained 14 items that had satisfying discriminating power. This study found that generally the students have positive attitude toward easiness in using, reading the software report, and being sure of the reliability of the software. However, it found lack of understanding in defining plagiarism, which was shown by most students. They also preferred submitting tasks electronically to collecting in print to their lecturers. It is recommended for the next research to emphasize more on understanding the concept of plagiarism through arranging manual book.

Keywords: Attitude toward Plagiarism Software, Electronic Submission

1. Introduction

Plagiarism has become an important issue in higher education in Indonesia. The emergence of plagiarism faced by academics backed by the pressure faced by academics to publish the results of their scientific work [2]. Plagiarism has also become an awareness in Indonesia since the emergence of regulation no. 17 of 2010 about the prevention and the countermeasures of plagiarism in universities. Plagiarism defined as either deliberate or unintended act in obtaining or attempting to obtain credits or values for scientific work, by citing some or all of the scientific works of another party acknowledged as a scientific work without stating the source adequately and properly [3]. This study refers the plagiarism to that definition.

Universities also take precautions against the emergence of plagiarism by subscribing to plagiarism detection software. There are several plagiarism detection tools that are used to prevent internet-based plagiarism of a variety of free and commercial software (such as Turnitin, My DropBox, EVE, WcopyFind, and WordCHECK) [4]. These internet-based software services usually provide facilities to measure the degree of similarity among students' work and materials, which can be accessed publicly online [4].

In the early period of electronic plagiarism detection, the system worked by searching for a certain number of sequenced phrases or sentences which were similar to the source on the internet. On the one hand, Turnitin's plagiarism detection software works entirely only for students as users, by logging in and entering the classes created by the lecturer and then uploading all the tasks individually, and then reviewing the results in the form of a report of originality which generated. Currently, a system such as Turnitin makes plagiarism detection

easier, with this system integrated into other university systems (e.g. WebCT) and providing easy-to-read reporting codes of originality and scoring each student's work [1].

However, on the other hand, this software works mechanically, ignoring human assessment. Therefore, Turnitin's plagiarism detection software provides an exclude source edit of the instructor users held by the lecturers. Besides, it has another function that Turnitin's plagiarism detection software can help the collection of students' assignments without having to meet the lecturers who give task upload deadline and provide feedback to the students [1].

This study is a duplication of the previous study which was conducted by Stephen Dahl on a perspective in the use of Turnitin's plagiarism detection software [1]. What makes this study different from the previous research is that the previous study employed graduate students who have not got any training about the working principles of plagiarism detection software, while this study employed research participants from first-year undergraduate students and have received training on the use and working principles of plagiarism detection software as well as reference management training. This exploratory study aims to examine students' attitudes toward the use of Turnitin's plagiarism detection software. Like the previous study, it is concerned that the knowledge of plagiarism detection software correlates with the incidence of plagiarism in students [5]. Furthermore, this study used item discriminating power index testing which which was different from the previous one whose aim was to find items that have an excellent discrimination item to distinguish the subject who has the measuring attribute and not [6].

2. Method

The participants in this study were the students of Psychology Faculty of one of private universities in Semarang, Indonesia involving 38 students from practicum class of Information Technology Literacy (IT Literacy) consisting of 9 male students and 29 female students. IT Literacy lecture contains the use of IT for scientific writing such as MS Word, MS Excel, MS PowerPoint, Reference Management, and Turnitin. The questionnaire was distributed at the end of the lecture after they received and practiced all IT Literacy materials. They were asked to fill the questionnaire consisting of 22 questions using five response choices of Likert scale with the choices of strongly disagree (1) up to strongly agree (5).

The instrument in this preliminary study was an adaptation from the scale relating to attitude toward the use of Turnitin's plagiarism detection software arranged by [1]. The scale adapted through conducting double translation and then comparing the results of the translation in order to get a consensus on the similarity of the meaning between the two translations. The result of the translation was then used to create a perceptual profile of the use of Turnitin's plagiarism detection software without including low discriminating power items in the descriptive statistical analysis as well as profile analysis.

3. Result

After the overall item done by the 38 respondents tabulated, the next step was to analyze the discrimination power of items in order to know the items which had discrimination power index that was able to distinguish the participants who had the measuring attribute and those who did not. Based on the discriminating analysis, 14 items selected from 22 items, which

used with mean responses ranged between 3.08 up to 4.24 and internal consistency of Chronbach $\alpha = 0.818$, which means that it had a satisfactory reliability level of the selected items (see table 1). The further analysis was to obtain student attitude profile toward the use of plagiarism detection software by using the selected 14 items.

Table 1. Item Discriminating Power Index of Attitude toward the Use of Plagiarism Detection Software

No. Item	Items	Mean	SD	Corrected Item Total Correlation	Subscales
11	Turnitin software makes me unsure of my work.	3,08	0,97	0,35	Attitude toward originality report
05	I prefer electronic feedback to paper based task (print out).	3,42	0,68	0,34	Attitude toward ease of use
08	I like to see my originality report in Turnitin.	3,68	0,57	0,34	Attitude toward originality report
09	Turnitin's originality report is understandable	3,68	0,62	0,38	Attitude toward originality report
04	I would prefer submit my task in file through Turnitin software.	3,74	0,86	0,48	Attitude toward ease of use
13	I like Turnitin which makes plagiarism much more difficult	3,89	0,92	0,42	Attitude toward originality report
03	I think it's easier to submit tasks through Turnitin software than to leave my assignment in the lecturers' room.	3,97	0,82	0,42	Attitude toward ease of use
10	I'm afraid of being accused of plagiarism based on originality report even though it's not true	3,97	0,68	0,62	Attitude toward originality report
15	I do not really understand plagiarism.	4,00	0,81	0,62	Attitude toward confidence in citing
07	I would prefer if a module of how to use Turnitin to submit the task is available	4,05	0,73	0,71	Attitude toward ease of use
21	Overall, Turnitin's originality report is accurate	4,08	0,71	0,50	Attitude toward originality report accuracy
02	Turnitin makes me easy to submit tasks.	4,21	0,53	0,54	Attitude toward ease of use
20	Overall, Turnitin performance is reliable	4,21	0,53	0,66	Attitude toward originality report accuracy
19	Turnitin can detect the sources used in my writing	4,24	0,59	0,35	Attitude toward originality report accuracy

This study found that the students have a positive attitude toward task submission via Turnitin. It can be seen from 26 students agree with the statement, while 11 students strongly agree with the statement (see table 2). This finding showed that task submission through Turnitin is considered easy for the students. The item number 3 compares task submission through Turnitin and direct submission to lecturers, which states that task submission through

Turnitin is more accessible than direct task submission to the lecturers. It found that there were many students feel easier to submit their tasks through the software, i.e. 19 students agree with the statement, while ten students strongly agree with the statement. The students prefer soft file task submission through Turnitin. Further description of the attitude seen from the responses of students on item number 4 (see table 2).

The statement on electronic feedback by lecturers through Turnitin software, in fact, was favored by 17 students and 1 student strongly agree with it rather than directly paper-based with notes from the lecturers. 17 students did not show their attitude about the feedback model and 3 students still prefer direct feedback. The next thing about the attitude toward the ease of use of the software is the need to create a particular module that used for guidance for students. This was agreed by 18 students while 11 students strongly agree with the module (See table 2).

Table 2. Statements relating to ease of use

No.	Statements	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Average
2	Turnitin makes me easy to submit tasks.	10 (26.3%)	26 (68.4%)	2 (5.3%)	0 (0%)	0 (0%)	4.21
3	I think it's easier to submit tasks through Turnitin software than to leave my assignment in the lecturers' room.	10 (26.3%)	19 (50%)	7 (18.4%)	2 (5.3%)	0 (0%)	3.97
4	I would prefer submit my task in file through Turnitin software.	6 (15.8%)	20 (52.6%)	8 (21.1%)	4 (10.5%)	0 (0%)	3.73
5	I prefer electronic feedback to paper based task (print out).	1 (2.6%)	17 (44.7%)	17 (44.7%)	3 (7.9%)	0 (0%)	3.42
7	I would prefer if a module of how to use Turnitin to submit the task is available	11 (28.9%)	18 (47.4%)	9 (23.7%)	0 (0%)	0 (0%)	4.05

The statement relating to 'originality report of student assignments, which can be seen directly through student accounts' obtained 25 students who like their originality report as seen in the statement no.8. The statement related to 'understanding originality report of the software easily understood' resulted 20 students agree, and 3 students strongly agree with it, while other 15 students were still in doubt to state their attitude. The statement on item number 10 i.e. 'Fear of the result of this plagiarism detection' resulted among 38 students of IT Literacy participants, 24 of them agree while 7 of them strongly agree with the statement (see table 3). The existence of plagiarism detection software also resulted in students' uncertainty on their work as stated by 17 students, while 10 students disagree, and 2 students strongly disagree with that statement. This can be seen in the students' responses to item number 11. Furthermore, the statement 'the existence of the software which makes plagiarism difficult to occur' was agreed by 23 students while 8 students strongly agree with the statement. (See table 3)

Table 3. Statements relating to originality report

No.	Statements	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Average
8	I like to see my originality report in Turnitin.	1 (2.6%)	25 (65.8%)	11 (28.9%)	1 (2.6%)	0 (0%)	3.68
9	Turnitin's originality report is understandable	3 (7.9%)	20 (52.6%)	15 (39.5%)	0 (0%)	0 (0%)	3.68
10	I'm afraid of being accused of plagiarism based on originality report even though it's not true	7 (18.4%)	24 (63.2)	6 (15.8%)	1 (2.6%)	0 (0%)	3.97
11	Turnitin software makes me unsure of my work.	0 (0%)	17 (44.7%)	9 (23.7%)	10 (26.3%)	2 (5.3%)	3.08
13	I like Turnitin which makes plagiarism much more difficult	8 (21.1%)	23 (60.5%)	3 (7.9%)	3 (7.9%)	1 (2.6%)	3.89

This study found that 22 students agree and 9 students strongly agree with the statement of item number 15 i.e. 'they do not understand plagiarism' (See table 4). The finding indicates that most of the students have not understood the limitation concept of plagiarism yet.

Table 4. Statement relating to confidence in citing

No.	Statement	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Average
15	I do not really understand plagiarism.	9 (23.7%)	22 (57.0%)	6 (15.8%)	0 (0%)	1 (2.6%)	4.00

The trust that Turnitin can detect sources used in scientific papers believed by 23 students who agreed and 12 students strongly agreed with it. The statement on item no.20 regarding the belief in the reliability of the performance of Turnitin's plagiarism detection software was believed by 26 students who agree with the statement and 10 students who strongly agree with the statement. While the last, positive attitude toward the software's originality report accuracy was shown by 19 students who agree and 11 students very agree with the statement (see table 5).

Table 5. Statements relating to reliability

No.	Statements	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Average
19	Turnitin is able to detect the sources used in my writing	12 (31.6%)	23 (60.5%)	3 (7.9%)	0 (0%)	0 (0%)	4.24
20	Overall, Turnitin performance is reliable	10 (26.3%)	26 (68.4%)	2 (5.3)	0 (0%)	0 (0%)	4.21
21	Overall, Turnitin's originality report is accurate	11 (28.9%)	19 (50.0%)	8 (21.1%)	0 (0%)	0 (0%)	4.08

The trust in the reliability of the software performance believed by most of the students who became the respondents. This can be seen from the average response on the items no. 19, 20, and 21 that was above the average value of the item response score.

4. Discussion and Implication

The findings of this study generally support the use of plagiarism detection software for the students. Although with some limitations, including the limitation of research participants, but overall this study found the respondents have positive response in the use of this Turnitin software. This finding is in line with the previous study which was conducted on graduate students as participants [1]. The attitude toward ease in the use of a plagiarism detection software is necessary to increase positive attitude toward the use of software, as it will reduce the indication of inconvenience in using the software as stated in the previous study [4].

A clear definition of plagiarism restriction also needs to be done such as providing a module on plagiarism limitation and how the use is considered very important. This finding is in line with the previous study which also highlights the importance of clear definition and limitation on plagiarism [7]. The existence of the guidelines indicates convenience in using the software, so students are not worried about their Turnitin results.

The finding of this study showed that most students have trust in the existence of the software, in this case, Turnitin in supporting their academic performance. They would be more sure about the paper they work on. This finding is in line with the previous study that the existence of plagiarism detection software helps students in writing their paperwork [1], [4]. The need to make guidelines on plagiarism to be a reference in this study is that students have written standard guidelines which one may be done and should not be done. The finding is also in line with previous study, which states that the process of socialization will reduce the level of student plagiarism [8], as well as the need for understanding of what plagiarism is [9].

What makes this study different from the previous research is the involved participant. The previous study employed graduate students who have not got any training about the working principles of plagiarism detection software [1], while this study employed research participants from undergraduate students and have received training on the use and working principles of plagiarism detection software as well as reference management training. As in line with the previous study, clear definition of plagiarism will reduce the incidence of plagiarism [9]. The absence of pretest in this study cannot be a basis that positive attitude toward the use of the software is affected by IT literacy practicum. Therefore, the next study needs to conduct pretest to find out the effectiveness of IT literacy practicum program toward the improvement of positive attitude in the use of plagiarism detection software.

References

- [1] S. Dahl, "Turnitin(R): The student perspective on using plagiarism detection software," *Act. Learn. High. Educ.*, vol. 8, no. 2, pp. 173–191, 2007.
- [2] T. S. Adiningrum, "Reviewing Plagiarism: An Input for Indonesian Higher Education," *J. Acad. Ethics*, vol. 13, no. 1, pp. 107–120, 2015.
- [3] Kementerian Pendidikan Nasional Indonesia, "Peraturan Menteri Pendidikan Nasional Republik Indonesia tentang Pencegahan dan Penanggulangan Plagiat di Perguruan

Tinggi.” p. NOMOR 17 TAHUN 2010, 2010.

- [4] A. Ledwith and A. Rísquez, “Using anti-plagiarism software to promote academic honesty in the context of peer reviewed assignments,” *Stud. High. Educ.*, vol. 33, no. 4, pp. 371–384, 2008.
- [5] R. J. Youmans, “Does the adoption of plagiarism-detection software in higher education reduce plagiarism?,” *Stud. High. Educ.*, vol. 36, no. 7, pp. 749–761, 2011.
- [6] E. Menesini, A. Nocentini, and P. Calussi, “The Measurement of Cyberbullying: Dimensional Structure and Relative Item Severity and Discrimination,” *Cyberpsychology, Behav. Soc. Netw.*, vol. 14, no. 5, pp. 267–274, 2011.
- [7] A. I. Kokkinaki, C. Demoliou, and M. Iakovidou, “Students’ perceptions of plagiarism and relevant policies in Cyprus,” *Int. J. Educ. Integr.*, vol. 11, no. 1, p. 3, 2015.
- [8] T. Batane, “Turning to Turnitin to Fight Plagiarism among University Students,” *Educ. Technol. Soc.*, vol. 13, no. 2, pp. 1–12, 2010.
- [9] C. Halupa and D. U. Bolliger, “Faculty Perceptions of Student Self Plagiarism: An Exploratory Multi-university Study,” *J. Acad. Ethics*, vol. 11, no. 4, pp. 297–310, 2013.