



## Preventing plagiarism among college students through writing lessons: A systematic review

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### Abstract

This systematic review aimed to explore academic writing lessons designed to prevent student plagiarism. This study fills a gap in understanding how various academic writing strategies can be used to foster integrity and improve writing skills among students. A comprehensive review was conducted using four databases: EBSCO, Wiley, ProQuest, and JSTOR. Eighteen articles were analyzed, revealing a range of academic writing interventions, including courses, tutorials, workshops, games, and training. Key topics covered in these lessons include grammar, word choice, paraphrasing, quoting, writing references, and educating students about plagiarism. Instructors frequently used tools such as Turnitin and iThenticate for plagiarism detection and provided feedback to students. The findings suggest that the implementation of structured academic writing lessons and consistent feedback can significantly alter students' plagiarism behavior and boost their confidence in academic writing. The review highlights the importance of integrating staged writing material and constructive feedback into university curricula to effectively combat plagiarism.

**Keywords:** Academic integrity; academic writing; plagiarism; university; writing lesson

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## 1. INTRODUCTION

Plagiarism is increasing every year even though students have been taught writing lessons at the school and university level (Applebee & Langer, 2011; Miranda-Rodríguez et al., 2024). Some types of plagiarism done by the students are (1) putting quotations into the text that are not provided in the bibliography or vice versa, (2) writing paperwork by copying a framework from other sources (copying a framework) without quoting, (3) allowing other people to revise a paper broadly, and (4) copying their writing by sending their work to some different courses without teachers' permission or copying previous works (Wangaard, 2016; Elshafei & Jahangir 2020). Therefore, plagiarism at university is crucial to focus on.

Students with basic writing skills in senior high school tend to avoid plagiarism in their work and research papers at the university (Holt, 2012; Peters & Cadieux, 2019). Based on that phenomenon, lecturers expect that the students have mastered writing skills and knowledge to prevent plagiarism (Peters & Cadieux, 2019). However, when students enter university, they think they still need more writing training to arrange a research paper without committing plagiarism (Peters & Cadieux, 2019). Therefore, improving writing skills at college becomes important to reducing plagiarism.

Several studies have shown that plagiarism in academics is still carried out by students even though they already know the concepts of academic writing ethics and academic integrity (Dimitrova, 2024; Awasthi, 2019; Rachmawati, 2017; Chawinga et al., 2018). It is caused by several factors, including culture, environment, time constraints, limited language mastery, and poor communication skills (Asamoah et al., 2024; Bacha et al., 2012; Liu & Wu, 2020; Strom & Strom, 2007; Zhao et al., 2022). Furthermore, some researchers found that the lack of academic writing comprehension becomes the main reason for committing plagiarism (Guraya & Guraya, 2017; Stander, 2020). Therefore, lectures must apply various ideas against cheating and create a culture of academic integrity.

One of the efforts to prevent plagiarism can be made through practical writing lessons. Implementing academic writing skills combined with plagiarism education in students strongly correlates with knowledge, skills, attitude, and positive behavior in academic writing (Awasthi, 2019). Students with excellent academic writing ability have confidence in writing, which influences their plagiarism attitude and behavior (Fazilatfar et al., 2018). It is strengthened by Stephens and Wangaard (2016), who stated that to develop the will and the skill of students' academic integrity, students are required to have (1) academic skills including paraphrasing technique, quoting, and times management; (2) social skills in blocking cheating behavior; and (3) interpersonal will to avoid plagiarism. Furthermore, implementing an active lesson strategy and improving self-efficacy motivate anti-plagiarism behavior (du Rocher, 2020). Therefore, improving the academic integrity related to plagiarism in writing requires appropriate methods and lesson material.

Some previous studies explain the effort to prevent plagiarism, such as Wangaard (2016), who focused on the practice that can be applied to develop the academic integrity of college students. The result of that study shows that it is crucial to improve the competence of the teachers and methods of comprehension in creating the study environment and provide ethical codes in supporting academic integrity. In addition, it is crucial to deliver rationalization, apply ideas to prevent students from cheating, develop students' moral identity, and create a culture of academic integrity at the university. Stoesz and Yuditseva (2018) conducted a face-to-face lesson method, a tutorial, and a combination of the two. Their study shows that both methods can be applied to improve the students' academic integrity. Eaton and Edino (2018) performed a study focusing on strengthening academic integrity in Canada. The result of their review shows that the improvement of academic integrity needs cooperation from all parties. It can be fulfilled in various programs by utilizing applications such as Turnitin as a tool to detect plagiarism.

### 1.1. Purpose of study

According to previous reviews that have been conducted, it can be stated that writing lessons is one of the efforts to strengthen academic integrity at the university level. However, until now, no study has focused on academic writing lessons for the university to improve academic integrity. Therefore, this writing presents a synthesis of literature about writing learning methods, supporting tools, writing material content, and

behavior changes on plagiarism after taking an academic writing lesson. The research results aim to fill the gap in the study of writing lessons to prevent plagiarism that can be applied at the university level.

## **2. METHOD AND MATERIALS**

### **2.1. Research design**

This review presents a synthesis through a systematic review of the primary literature that studies academic writing lessons in strengthening academic integrity through plagiarism prevention. A systematic review is used to analyze the complete review according to the focus on experimental and non-experimental studies. The research questions in this review are:

What academic writing methods can be applied to improve students' plagiarism behavior based on content, supporting tools used, and changes in student plagiarism behavior after academic writing learning is carried out?

### **2.2. Procedure**

#### **2.2.1. Study criteria**

This review covers reviews on academic writing lessons related to plagiarism at the university level. This review is limited to English literature to minimize the study's false interpretation. The study will be excluded if they are referential books, book reviews, and critical discussion papers. Referential books often use out-of-date sources of information, whereas this review attempts to present up-to-date sources of information. However, articles from handbooks that are considered appropriate would be included.

#### **2.2.2. Strategies for study choice and search**

The literature search used a database from EBSCO, Wiley, ProQuest, and JSTOR from January 1, 2010, until 2021. The choice databases and periods were selected for teachers to collect the methods of academic writing lessons at the university with better quality and more updated information. The article search used keywords, such as ("academic integrity" OR "plagiarism" OR "cheating" OR "fabrication" OR "falsification" OR "patchwriting") AND ("writing skills" OR "writing ability" OR "writing development" OR "writing improvement") AND ("university" OR "College"). From that search, the researcher found 428 references published from 2010 to 2021. Articles duplicated from the search results were later removed.

Two independent reviewers (MY and HS) assisted the researcher with the study choice. Before performing their task, the two reviewers were informed about the study. Then, they filtered the titles and article abstracts identified from the database for the relevant studies. The complete texts from the articles that are relevant were later collected to assess inclusion. In case of a difference in assessment, a consensus was reached between the two reviewers.

#### **2.2.3. Data extraction**

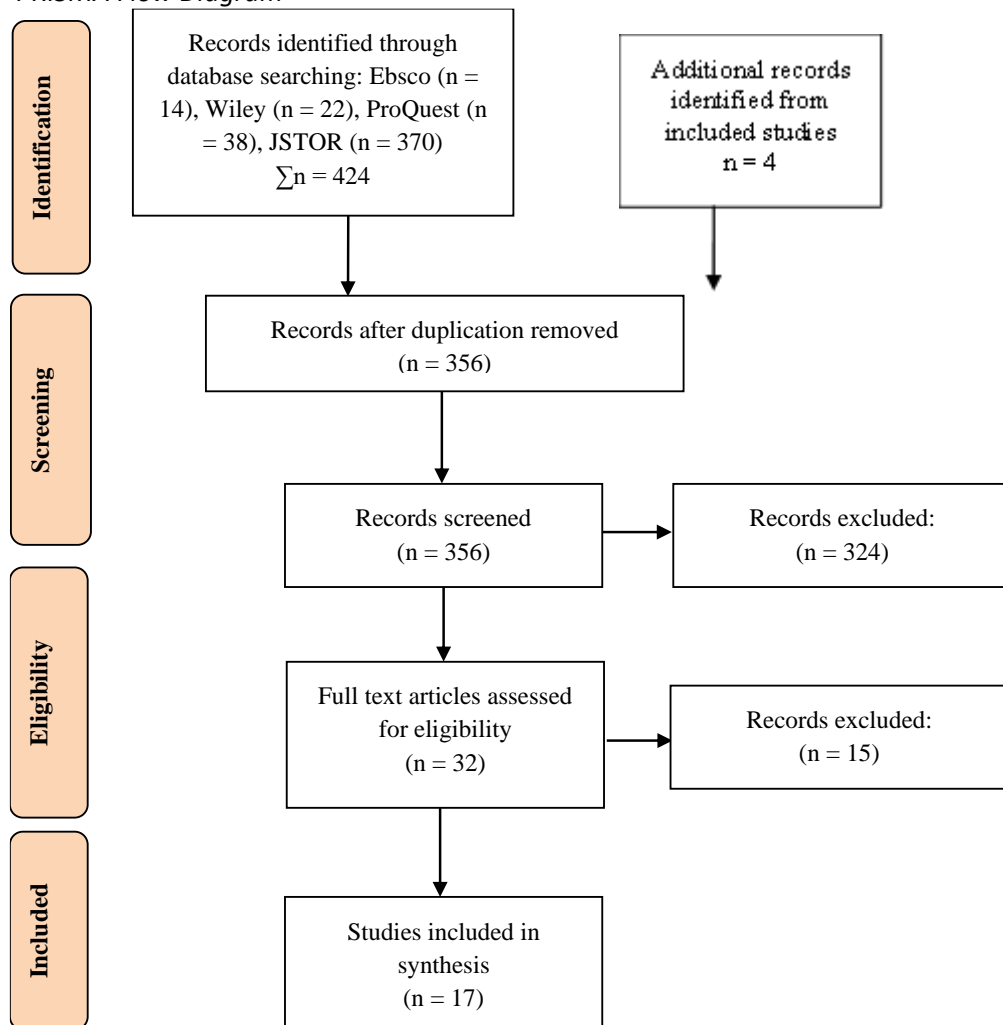
In this review, the extraction data instruments are planned to serve as a guide according to the reviewers' purpose. Data extracted from each inclusive study include the author, year, home country, study design, research aim, writing lesson methods, plagiarism checker tools, writing content being taught, change of plagiarism behavior after the implementation of the writing lesson, and outcome from each study.

## **3. RESULT**

### **3.1. Study characteristics**

From 428 studies identified, 18 articles met the criteria. The result of the study choice can be seen in Figure 1.

**Figure 1**  
PRISMA Flow Diagram



To conduct the study on plagiarism in writing lessons, the study uses various kinds of research designs from many countries. The study characteristics can be seen in Table 1.

**Table 1**  
*Characteristics of the research*

No.	Author, Year	Design	Sample	Number of sessions
1.	(Holt, 2012)	Experiment with a control group design	148 students, in 2010 (n=94) and 2011 (n=54).	Not explain
2.	(Owens & White, 2013)	Prospective cohort	14338 undergraduate students	The number of sessions is not explained, but learning outcomes are evaluated every semester.
3.	Choo & Paull, 2013)	Descriptive papers	-	
4.	Burgess-Proctor et al. (2014)	Descriptive	Undergraduate students of sociology	Each session lasts 40 minutes.

5.	(Colton & Surasinghe, 2014)	Descriptive	38 undergraduate students of biology divided into two sessions	Lessons are conducted twice a week, and the meeting lasts 1.5 hours.
6.	(Chew et al., 2015)	Cross-disciplinary group	128 people filling out the online questionnaire 10 students and 7 lecturers were interviewed	
7.	(Dalal, 2015)		26 students are attending information systems courses.	Not explain
8.	(Divan et al., 2015)	Experiment cohort	90 magister students of biological sciences consisting of 30 UK students and 60 international students	Not explain
9.	(Odom & Helfers, 2016)	The grounded theory approach contains qualitative and quantitative (experiment pre-posttest with a control group)	38 students of criminal justice	Not explain
10.	(Carnero et al., 2017)	Case study	Magister students in Peru.	Learning is carried out in six sessions, with each session lasting 1.5 hours.
11.	(Watson, 2017)	Descriptive	-	Not explain
12.	(Liu et al., 2018)	Mixed method	14 undergraduate EFL students (11 female and 3 male) with intermediate English language proficiency	Meetings are held weekly, and each session lasts 50 minutes
13.	(Rathore et al., 2018)	Cross-sectional	80 consisting of 38 males and 42 females (the average age: 26.2 years)	Learning is carried out in 4 workshop sessions, with each session lasting 40 minutes
14.	(El Tantawi et al., 2018)	Quasi-experiment pre-test-post-test	Participants were 92 first-year students of dental science in two different classes (47 males and 45 females) with an average of age: 20 years.	Not explain
15.	(Dayyeh & Skakiyya, 2018)	Survey	727 undergraduate students consisting of 80.6% female and 19.4% male	Not explain
16.	(Wrigley, 2019)	Phenomenological research	Students in academic writing classes	Not explain
17.	(Yang et al., 2019)	Quasi-experiment with a control group	185 undergraduate students of biological science divided into the control group (n = 91) and the intervention group (n = 94)	Not explain
18.	(Perkins et al., 2020)	Quasi-experiment with a control group	Not explain	Not explain

### 3.2. Study in geographical extent

Studies that are identified have a relatively broad geographical extent as dominated by the USA with seven studies (Burgess-Proctor et al., 2014; Colton & Surasinghe, 2014; Dalal, 2015; Holt, 2012; Odom & Helfers, 2016; Watson, 2017; Yang et al., 2019). Great Britain with three studies (Chew et al., 2015; Divan et al., 2015; Wrigley, 2019), Peru with one study (Carnero et al., 2017), Palestine with two studies (Dayyeh & Skakiyya,

2018; Rathore et al., 2018), Australia with two studies (Choo & Paull, 2013; Owens & White, 2013), Saudi Arabia with one study (El Tantawi et al., 2018), Vietnam with one study (Perkins et al., 2020), and Taiwan with one study (Liu et al., 2018).

### 3.3. Writing lesson methods

From the 18 studies reviewed, writing lessons in preventing plagiarism behavior can be done with various methods such as training or courses, workshops, tutorials, training and mentoring, and games. The writing learning methods can be seen in Table 2.

**Table 2**

*Writing learning methods, tools used, and the result of intervention*

No.	Method	Type of learning	Author	Learning content	Supporting tools	Result
1.	Course or training	Reflective writing course	(Dalal, 2015)	Paraphrase	Turnitin	The remaining 1 out of 26 students copied the textbook while the other students had Turnitin results <10%
			(Watson, 2017)	Paraphrase, quote, reference writing	Not explain	Students can complete assignments without plagiarism accompanied by increased understanding and awareness of plagiarism.
			(Odom & Helfers, 2016)	Basic rules of writing	Friends feedback	Students can improve grammar skills, diction selection, paraphrasing, and quotations. Students' confidence in writing without plagiarism also increases.
			(Perkins et al., 2020)	Basic rules of writing	Turnitin	The intervention showed a 37.01% reduction in detected plagiarism cases
			(Yang et al., 2019)	Paraphrase	Not explain	The decrease in plagiarism cases in the intervention group was 0.67 cases per report, while in the control group, it was 1.31 times plagiarism cases.
	Writing basics course		(Holt, 2012)	Paraphrase, quote, reference writing	Turnitin	Students can complete assignments without plagiarism

					accompanied by increased understanding and awareness of plagiarism.
			(Dayyeh & Skakiyya, 2018)	Paraphrase, quote, reference writing	Not explain Not explain
	Scientific writing training and assistance in stages		Choo & Paull, 2013)	Paraphrase	Not explain Not explain
			(Carnero et al., 2017)	Basic rules of writing	iThenticate Students are protected from plagiarism and cheating
2.	Workshop	Focused workshop	(Rathore et al., 2018)	Basic rules of writing	Not explain There is an increase in positive attitudes towards plagiarism
		General workshop	(Divan et al., 2015)	Paraphrase, quote, reference writing	Turnitin - The number of plagiarism cases decreased from 26% to 5.6% - Students' confidence increases in using accurate references, not plagiarizing, writing critically, and synthesizing material from different sources
3.	Tutorial	Individual tutorials	(Wrigley, 2019)	Basic rules of writing	Not explain Students in writing papers produce better and more original writing by handwriting than using Google Translate or web-based paraphrasing software.
			(Liu et al., 2018)	Paraphrase, quote, reference writing	Turnitin Students can paraphrase and feel confident by changing grammar and using synonyms, citing, and writing references.
			(Chew et al., 2015)	Paraphrase, quote, reference writing	Turnitin It shows students to be independent and have much better paraphrasing skills.
		Group tutorials	(Owens & White, 2013)	Basic rules of writing	Manual checking of sources used and There has been a decrease in plagiarism cases from 109 to no plagiarism cases.

				peer feedback
	Buargess- Proctor et al. (2014)	Paraphrase, quote, reference writing	Not explain	Students can complete assignments without plagiarism and their self-confidence increases in writing without plagiarism.
	Colton & Surasinghe (2014)	Basic rules of writing	Friends feedback	Students find it very helpful to avoid plagiarism with group tutorial programs accompanied by a peer-review process.
4.	Play method	(El Tantawi et al., 2018)	Basic rules of writing	Turnitin
				The percentage of plagiarism decreased from 77 to 5 students marked by the ability to detect and avoid plagiarism and use quotes and references.

### 3.3.1. Course or training method

Course or training methods were applied and reviewed in six studies (Dalal, 2015; Choo & Paull, 2013; Holt, 2012; Odom & Helfers, 2016; Watson, 2017; Yang et al., 2019). In those studies, the course method was conducted through various interventions according to the writing lesson types applied. Three studies conducted a course or training method with reflective writing (Dalal, 2015; Odom & Helfers, 2016; Watson, 2017). Dalal (2015) conducted a lesson that first developed students' awareness. The next step was conducted on education and invited the students to discuss plagiarism, integrity, and self-assessment. After those steps were done, the students were asked to write an essay and to reflect on the essay written. The activity on essay reflection by Watson (2017) was conducted by directing the students to write an essay from other sources. The next step is for each student to analyze the quotation technique by focusing on paraphrasing, plagiarism, patchwriting, quoting, or copying. After analyzing their writing, the students were later asked to reflect on and revise their writing. This activity is different from the reflective writing lesson by Odom and Helfers (2016), who directed the students to produce a two-page essay and send their writing to the teachers. To do that, the students first ask for feedback from their peers.

Unlike the three previous studies, Yang et al., (2019) applied the course or training method to writing lessons with the students' own words. Their writing lesson was conducted to develop awareness about the plagiarism committed. The lesson using that method was conducted in three steps, namely, (1) literature introduction was focused on quotation method and reference writing; (2) plagiarism introduction was conducted to orient the students in reviewing problems in writing and plagiarism through examples and corrections; (3) writing process was conducted to orient the students to write from various sources through three ways, namely, copying, patchwriting, and writing using their own words without plagiarism. The students' writing would be checked later using the Turnitin application so that they could assess the uniqueness of their work. In that lesson, students also express plagiarism done intentionally. After that, teachers describe values and examples of how the students and instructor can appreciate academic integrity.

Course or training method was conducted based on the basics of writing from four studies (Dayyeh & Skakiyya, 2018; Holt, 2012; Watson, 2017; Perkins et al., 2020). Training on the basics of writing was conducted by teaching the students how to summarize, paraphrase, and quote correctly. However, the training



conducted by Holt (2012) focused on providing understanding and improving skills in paraphrasing and quoting lessons. In that study, the students were given the training to write without any plagiarism and to learn to paraphrase. At the end of the training, the students were instructed to arrange their papers without committing plagiarism. The study by Dayeh and Skakiyya (2018) provided training by further understanding the advantages of using the library and using various sources in paperwork writing. Learning to write various sources is also carried out by Perkins et al., (2020) through essay writing assignments. In this study, students write essays by referring to several questions and reading sources that have been provided in the Academic English Masterclass (AEM) application developed.

### **3.3.2. Workshops method**

The writing lesson via the workshop method was conducted in two studies (Divan et al., 2015; Rathore et al., 2018). Rathore et al., (2018) conducted the workshop in four sessions. The first session was conducted by introducing the types of errors, and the second session was continued with discussion and practice about ethical and non-ethical writing. The third session tackled the explanation of plagiarism, non-ethical publishing, conflict of interest, and property rights. Finally, the last session taught the students how to detect and prevent plagiarism. The writing lessons program by Divan et al., (2015) covered delivering knowledge and writing practice. The knowledge material consists of literature search, plagiarism, and writing the literature review. The practice covers using a referential manager (EndNote) and writing the literature review. The students are required to collect literature reviews after the first four weeks and participate in the whole series of the workshop.

### **3.3.3. Tutorial method**

The writing lesson via the tutorial method was conducted in six studies. The tutorial method in this review can be divided into two types, namely, individual tutorials and group tutorials. The individual tutorial was applied in three studies (Chew et al., 2015; Liu et al., 2018; Wrigley, 2019). Group tutorial was also applied in three studies (Burgess-Proctor et al., 2014; Colton & Surasinghe, 2014; Owens & White, 2013).

The individual tutorial method places independent learning first in its implementation. Individual tutorials conducted by Wrigley (2019) orient the students to write their essays by hand. The lessons aimed to enable the students to manage writing using their own words without copying and pasting as they use a computer. Besides that, Liu et al., (2018) oriented the English as a Foreign Language students via online tutorials assisted by DWright software. The online tutorial covers four main aspects, namely, (1) the plagiarism introduction consists of a definition, copying example, and patchwriting; (2) the strategies for plagiarism prevention consist of paraphrasing skills and quotation rules; (3) behavioral test for plagiarism and quotation rule and paraphrase practice; and (4) user's lesson portfolio to improve the independent learning of the students by presenting the result of the paraphrase and the test and conducting self-evaluation. The study by Chew et al., (2015) applied independent learning by correcting the feedback of the essay result that is the result of Turnitin checking. The target of the tutorial method conducted is grammar, paraphrasing, and quoting ability.

Different from the individual tutorial, a group tutorial aims more at collaboration. A group tutorial by Owens and White (2013) was conducted online that taught students how to write an essay by answering questions about the articles given to them. Those essays are sent online and would be divided later randomly to other students to be checked. Owing to the importance of feedback in this writing lesson, the tutor should give directions first to all students about how to mark the assignments. The study conducted by previous researchers (Burgess-Proctor et al., 2014; Colton & Surasinghe, 2014) applied group tutorials guided by teachers collaboratively from various disciplines.

The study by Burgess-Proctor et al., (2014) initiated the lesson with the writing practice according to their understanding of the reading text given. After that, a peer review process is conducted and directs the students to go to the library to study how to search, select, and extract relevant and qualified writings. The next step is for the students to rewrite using various sources and quotations. The last step is to conduct a plagiarism tutorial online and to write a statement letter on students' integrity. The study by Colton and Surasinghe (2014) was conducted by writing a research proposal based on the student's knowledge and

paperwork on popular science innovations from various genres. The research proposal is based on the topics given. Then, the students reviewed each other's work and later submitted it to the tutor to be given feedback as the effort emphasized revision and collaborative learning.

#### **3.3.4. Training and mentoring method**

Training and mentoring methods for scientific writing using some steps were conducted in two studies (Carnero et al., 2017; Choo & Paull, 2013). The study by Choo and Paull (2013) were performed to determine the target training for the students. In their study, the tutor gives a discussion about plagiarism and also conducts implementation steps. In the study by Carnero et al., (2017), the students were taught the content of each part of a research paper. That activity and the introductory step-by-step lesson will be evaluated later at the end of the semester for two years. This lesson used strict detection and no mercy on plagiarism.

#### **3.3.5. Games method**

The implementation of writing lessons was also conducted via the game's method, such as in the study by El Tantawi et al., (2018). In their writing lesson, the students are divided into groups. Each student will be given a task to make a paper according to their group topic that was determined and submitted through LMS (learning management system) and would later be given feedback by the teachers. Each task would be given points and saved in the LMS; the group that achieved the most points would be the winner of the game and would get a present from the teachers.

### **3.4. Content of the writing lesson**

Some content is being taught to avoid plagiarism in writing (Table 2). Given writing materials from all articles were based on the problems experienced by the students and the duration of the given writing intervention. Of 17 studies being reviewed, seven studies taught the basics of writing (Carnero et al., 2017; Colton & Surasinghe, 2014; El Tantawi et al., 2018; Odom & Helfers, 2016; Owens & White, 2013; Rathore et al., 2018; Wrigley, 2019; Perkins et al., 2020). The material comprises grammar, scientific paper components, paraphrasing, quotation, word choices, language style, and reference writing. Seven studies combine the materials of paraphrasing, quotation, reference writing, and various sources (Burgess-Proctor et al., 2014; Chew et al., 2015; Dayyeh & Skakiyya, 2018; Divan et al., 2015; Holt, 2012; Liu et al., 2018). In addition, three studies only focus on paraphrasing (Dalal, 2015; Choo & Paull, 2013; Yang et al., 2019). Even though using different materials in all studies, the lesson is started by giving knowledge about plagiarism and writing ethics to improve the students' awareness of plagiarism.

### **3.5. Supporting tools**

Supporting tools were used in the writing lesson to investigate how students' writing abilities related to plagiarism behavior changed. Hence, a checking process was conducted using the software application and manual checking (Table 2). From the whole study being reviewed, the most used anti-plagiarism software is Turnitin (Chew et al., 2015; Dalal, 2015; Divan et al., 2015; El Tantawi et al., 2018; Holt, 2012; Liu et al., 2018; Perkins et al., 2020). Another software used is iThenticate (Carnero et al., 2017). In addition to using software, some other studies also use the manual checking method on the articles or the reading sources given. One study manually checked the sources used (Owens & White, 2013). Some studies used the feedback from the students' peers as additional feedback (Colton & Surasinghe, 2014; Odom & Helfers, 2016; Owens & White, 2013; Huynh-Cam et al., 2024). Delivering feedback has positively impacted the plagiarism practice (Burgess-Proctor et al., 2014; Carnero et al., 2017; Colton & Surasinghe, 2014; Divan et al., 2015; El Tantawi et al., 2018; Odom & Helfers, 2016; Owens & White, 2013).

### **3.6. Change of plagiarism behavior after the implementation of the writing lesson**

Of all the studies, 16 reviewed the change in plagiarism behavior of the students (Table 2). Those studies show the change in plagiarism behavior in writing lessons by implementing various methods. Students can correct writing concerning grammar appropriateness, dictions, paraphrasing, and quotations. Five studies used the course method to explain the change in plagiarism behavior of the students after the writing lesson. The study by Dalal (2015) shows that after the implementation of the reflective writing lesson, only one

student copied from textbooks, whereas 25 students who used Turnitin had a <10% result. A similar result is shown by Odom and Helfers (2016) A similar result is shown by Odom and Helfers (2016) that no student committed plagiarism after participating in the course of reflective writing.

Similarly, a comparative study by Yang et al., (2019) also shows a decrease in plagiarism after the writing course lesson in which they use their own words for writing. The plagiarism case for the intervention group is 0.67 times per report. The result of the intervention group is lower than that of the control group, which is 1.31 times. The study by Perkins et al., (2020) showed the results of 12 semesters of academic violation data (n = 12,937), where there was a 37.01% decrease in plagiarism cases detected after the essay assignment intervention. The results also show a lower proportion of plagiarism tasks than expected (3.46%). Additionally, the study by Watson (2017) and Holt (2012), shows the ability of the students to finish their tasks without plagiarism, followed by an improvement in comprehension and awareness of plagiarism.

Writing lessons via the workshop method also shows behavioral change and plagiarism behavior. A study by Rathore et al., (2018) shows the improvement in students' behavior toward plagiarism after attending the focused workshops; however, their study does not show the scale of behavioral change in students' plagiarism. A study by Divan et al., (2015) shows that plagiarism cases decreased from 26% to 5.6% after the workshop.

The decreasing cases of plagiarism are also achieved after implementing individual and group tutorials. Chew et al., (2015) showed that the students become more independent and can paraphrase better after the individual tutorial with the assistance of Turnitin. Wrigley (2019) showed that the students using writing paper have better writing and are more original with handwriting than those using Google Translate and paraphrasing software. A study by Liu et al., (2018) also shows that the students can complete their tasks without committing plagiarism and have increasing comprehension and awareness of plagiarism. A practice on plagiarism prevention was conducted through paraphrasing by changing the grammar and using a synonym, quotations, and reference writing.

Implementing group tutorials can also decrease the number of plagiarisms from students. Burgess-proctor et al., (2014) showed that the students could complete their tasks without committing plagiarism by increasing their comprehension and awareness of plagiarism. Their result is strengthened by the study of Colton and Surasinghe (2014), who stated that the tutorial group program and the review-peer process aid students in avoiding committing plagiarism.

Training and mentoring methods on scientific writing by steps also show positive results. Carnero et al., (2017) found that there is a decreasing number of cheating behavior and plagiarism by students after the training. Before implementing the scientific writing lesson using some steps, cases of plagiarism were found in five students, and two students were found cheating. However, after the lesson's implementation, all students avoided cheating and plagiarism.

The implementation of writing lessons through the game's method in the study by El Tantawi et al., (2018) shows that the percentage of copying behavior decreased drastically from 77 to 5 students, marked by the ability to detect and avoid plagiarism and to use quotation and reference.

In addition to the change in plagiarism behavior, four studies investigate the change in students' confidence in writing (Burgess-Proctor et al., 2014; Divan et al., 2015; Liu et al., 2018; Odom & Helfers, 2016). The collective writing course (Odom & Helfers, 2016) and group tutorial (Burgess-Proctor et al., 2014) applied in each investigation could improve the student's confidence in writing without plagiarism. Through the individual tutorial, the students feel confident after paraphrasing and quoting appropriately (Liu et al., 2018). also showed that the implementation of workshops improves the student's confidence in using precise references, not plagiarizing, writing critically, and synthesizing the material from various sources.

#### **4. DISCUSSION**

Various methods in writing lessons have been applied to prevent plagiarism. This review investigates the writing lesson method, lesson content, supporting tools, and the change in plagiarism behavior after the implementation of the writing lesson. The course and tutorial methods are primarily used in the essay writing

lesson. The tutorial method is more appropriate to be used at university application of tutorials helps students understand the subject matter well (Azer & Azer 2015). Students will interact with each other to provide feedback under the guidance of a tutor (Azer & Azer 2015). In the implementation of the tutorial, students' activeness and self-confidence are also trained. For the tutorial to run well, it is important to pay attention to the tutor's qualifications because it impacts the interaction between the tutor and the tutorial participants. It can affect students' plagiarism behavior (Stoesz & Yuditseva, 2018).

This review also shows that the students were educated about academic integrity to prevent plagiarism. Attitude and behavior of students' plagiarism is influenced by the writing training implementations followed by plagiarism education (Awasthi, 2019). Plagiarism education needs to be given to emphasize the definition of plagiarism explained in broad and unclear statements. That is to avoid misunderstanding and ambivalence among the students (Eaton, 2017). Besides that, the material needs to be integrated with the anti-plagiarism attitude building. Memon and Mavrinac (2020) expressed that someone who has knowledge and attitude building would be more effective in changing their behavior. Therefore, the students need to be provisioned with plagiarism knowledge, writing skills, and anti-plagiarism attitude building to strengthen their academic integrity.

The plagiarism checker tool that is mainly used in this review is Turnitin. The research result is in line with Eaton and Edino (2018), who explain that Turnitin can be utilized to strengthen students' academic integrity. The checking of students' work is used as the benchmark of the student's ability. Turnitin software can help in performing tasks related to plagiarism. This tool can be used at the university level because the students can do independent learning through reflection and self-efficacy improvement (Lock et al., 2017). Generally, knowing that there is numerous software to support the detection of text similarities, helps some ration in reducing plagiarism from writers (Foltýnek et al., 2020). Giving feedback is very accurate as self-reflection and independent learning assistance to assess writing ability improvement (Chew et al., 2015). Hence, the use of Turnitin checkers should be followed by information purpose of giving the checking result, so it does not become a psychological burden on the students.

This review shows a decrease in plagiarism behavior after students participates in academic writing lessons. The tendency of the students to commit plagiarism and cheat decreased after the writing lesson implementation. The writing lesson improved the knowledge and confidence of students in preventing plagiarism. Stoesz and Yuditseva (2018) revealed that explicit teaching about academic integrity, quotation techniques, and paraphrasing could potentially decrease academic integrity violence cases. That is strengthened by Wangaard (2016), who stated that the writing practice implementation in the classroom is one of the efforts to avoid plagiarism that can be done by writing lessons.

Decreasing the plagiarism behavior of the student needs cooperation from many parties. Lectures and the university need the competence to support prevent plagiarism, create a learning environment and academic integrity culture at the university, implement ideas to counter cheating among students and develop students' moral identity (Wangaard, 2016). Writing lessons and plagiarism education need to be taught in universities as a basis for student habits to avoid cheating in the future, namely in the work environment. It is important because cheating done by students would increase in the working environment (Anderman & Midgley, 2004; Mulisa & Ebessa, 2021). However, the low percentage of articles that discuss strengthening academic integrity about plagiarism through writing lessons found in this review shows that the researchers' interest is low in this research. Therefore, it is expected that researchers in the related fields can focus their studies on providing more references for the teachers.

To facilitate further studies, this review shows the countries that conducted studies on decreasing plagiarism behavior through writing lessons. The countries that have conducted many studies are the USA and countries in Europe. A limited number of studies can still be found in Asia and Australia, whereas studies from Africa cannot be found related to this field. Therefore, it is expected that the researchers in those countries study decreasing plagiarism behavior through academic writing lessons about plagiarism. This is because plagiarism is a global issue.

## 5. CONCLUSIONS

This review highlights the appropriate methods, supporting tools, the lesson content to be implemented at the university level, and the impacts on the students' plagiarism behavior. Various kinds of methods, supporting tools, and writing lesson content have been implemented at the university level. The tutorial method in the writing lesson should be enjoyable to stimulate the students and followed by providing feedback through plagiarism checkers. Writing lessons must be conducted continuously and step-by-step according to the student's abilities. The lesson covers word choices, grammar, quotations, paraphrasing, reference writing, and knowledge about plagiarism. Writing lessons can improve students' plagiarism behavior.

This review summarizes relatively few studies and does not represent all kinds of writing lessons from the university level. However, the review aims to stimulate a discussion for the decision-makers and writing lesson practitioners at the university level to avoid plagiarism. This area of study is suggested for further research.

This review has many limitations. This review only investigates articles published in English, so there is a risk of incomplete retrieval and a limitation in accessing some full texts. This review also summarizes relatively few studies and is limited to articles on college. Therefore, the research is limited to the identified research with our language and database choice.

According to Papaioannou et al., (2016), a literature review is more reliable when two or more people analyze it. In this research, two research assistants helped the researcher search, select, and synthesize the literature; the author only did the literature analysis. Therefore, the author is aware and admits that this is one of the limitations of this review. Another limitation found is that some articles do not disclose the change in students' plagiarism behavior after the writing lesson has been conducted to consider selecting the most appropriate method for college students. Nevertheless, this review can still provide an overview of the writing lesson at the university level that can improve plagiarism behavior of the quality results of the reviewed studies.

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