Indonesian Journal of English Language Teaching and Applied Linguistics

Vol. 7(1), 2022
www.ijeltal.org
e-ISSN: 2527-8746; p-ISSN: 2527-6492

Peer Review and Corrective Feedback to Improve the Quality of Students' Article Writing

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ARTICLE INFO

Keywords:
corrective feedback, peer review, quality of writing

DOI:
http://dx.doi.org/10.21093/ijeltal.v7i2.1437

ABSTRACT

The purpose of this study was to analyze the effect of peer review and corrective feedback on the quality of scientific article writing of the students, either partially or simultaneously. The research design was a correlation. The research sample was 85 English education students at Mulawarman Samarinda. The process of collecting data was a survey method with the help of google forms. Data analysis was operated using SPSS application. Results show the following. First, there is a significant effect of peer review on the quality of student scientific writing with an R2 of 0.392. Peer review contributes to the quality of student scientific papers by 39.2%. Second, corrective feedback has a significant effect on the quality of student scientific writing, with an R2 of 0.615. This means that corrective feedback has an effect of 61.5% on improving the quality of student scientific work. Third, there is an effect of peer review and corrective feedback together on the quality of student scientific writing with an R2 of 0.638. This means that peer review and corrective feedback together contribute to the quality of student writing by 63.8%.

How to cite:
Budiharso, T. (2022). Peer Review and Corrective Feedback to Improve the Quality of Students' Article Writing. *Indonesian Journal of English Language Teaching and Applied Linguistics, 7*(1), 245-260

1. Introduction

It is safe to say that the quality of the scientific articles produced by students to this point is still quite poor (Blommaert, 2013; Farooq et al., 2020). Their potential to cause problems in the background is, as of yet, extremely limited. The vast majority of the contexts are comprised of opinion, narrative, qualitative, and only a few quantitative details (Bakri, 2015). The problems that were brought up in the background have not been able to persuade anyone, even if there are pressing issues that need to be resolved as soon as possible in the topic that was chosen (Aghajanloo et.al, 2016).

The issues that have been brought up cannot be described in a manner that progresses from general to specific (deductive). The majority of students place their problems, regardless of whether they are general or specific, in a haphazard manner; however, the method that is

most frequently utilized by scientists is to begin with general problems, rather than specific problems, and then finish with specific problems, according to the research location that they wish to select (Afraz & Ghaemi, 2012).

The author has found that the weaknesses of student work manifest themselves in poorly formulated problems because the students have not been able to dive into the core problem to be solved. The vast majority of student-generated problems are, at this stage, problem formulations that are broader in scope than narrow. This agrees with the view of Akhmadi-Azad (2014), who argues that students' problem formulations are still typically broad, difficult to answer, and not particularly focused on the actual issue at hand. One definition of a good problem is one that has clear parameters within which it can be solved and can be applied (Seillek, 2013).

Student papers have not been able to differentiate between the theoretical and practical benefits of research when explaining those benefits. Students have a hard time differentiating between abstract concepts and real-world applications. Advantages in theory building are gained through investigation. Advantages that can be put to use by researchers, scientists, stakeholders, and policymakers in the future are what we mean when we talk about "practical benefits" (Abadikhah & Ashoori, 2012).

The choice of libraries or reading sources may also contribute to students' lack of writing proficiency, as this can be seen in their written work. The reading sources that students choose to utilize most often come from books of questionable quality that do not make use of pertinent scientific journal materials that are the product of scientific research. The majority of the reading materials chosen by the students were published more than ten years ago; however, they should have chosen reading materials that were published no more than five years ago and no more than ten years ago. Students had the rationale that using information obtained from books was simpler because they only needed to borrow it from the campus library, they did not need to conduct internet searches, they did not need to translate the information, and they did not need to write a lengthy bibliography (Swoger, 2014).

The vast majority of students are disinclined to make an effort when it comes to selecting international journals because doing so requires them to invest a significant amount of time on the internet, convert documents from PDF to Word format, and translate passages one at a time. Another reason is that students have a difficult time locating theories, dimensions, and indicators in journals, so they opt instead to read books or senior theses instead. The theses written by senior-level students serve as the primary source for imitation and the selection of reading materials. The thesis is widely regarded as the most beneficial reading material, not only in terms of selecting a theory but also in terms of replicating the theory that will be applied.

When students read the thesis that is owned by Generation's brother, they no longer have to look for the original sourcebook. Instead, they must imitate the body notes and copy the bibliography in order to give the impression that they have read the original book. Even if the student chooses to base their senior thesis on a journal, the examples provided serve as excerpts from other theses, giving the impression that the student has actually read the journal (Sulistyo, 2015).

The preliminary findings indicate that students also struggle to differentiate between the use of "di" as a prefix that does not need to be written separately and "di" as a preposition that must be written separately. Both uses of "di" are considered to be prepositions. They also frequently start sentences with conjunctions like "Yang" and "So," despite the fact that such usage is considered archaic. Additionally, they tend to overuse the word "yang" in each sentence, which causes the sentence to lack impact as a result of their word choice.

The vast majority of students struggle when it comes to properly making sentence structures. The main ideas that are developed are not consistent, which is why it seems like they are cycling through and repeating themselves in some of the paragraphs that are developed. In point of fact, a significant number of the primary concepts are not recorded, giving the impression that "something has been skipped." Because of this, it is more challenging for the reader to understand the primary idea in a way that is consistent.

The ability to compose paraphrases is likewise crucial in academic writing (Escudero et al., 2019). The vast majority of students simply aren't equipped to paraphrase effectively. Students have a high rate of plagiarism because they are hasty and lack necessary paraphrasing details (Street, 2015). There are both compound and simple sentences, making good examples challenging. After reading this, you should have a good idea of how much help students still need from their teachers when it comes to sentence-writing skills.

Students often make the mistake of including dots in fixed abbreviations that do not require them, such as RP, PT, SD, SMP, SMA, and others. Similarly, students frequently struggle to rewrite passive sentences as active ones and vice versa. Students are similar to adults in many respects and can be hard to tell apart. Each lecturer is responsible for collecting and grading student work, and the group of lecturers then reviews the assignments and provides feedback to the students.

Student work has the most methodological flaws. Students struggle with methodology. Most of them can't pick the best approach. They sometimes use a quantitative research design when they should use a qualitative one. Students cannot distinguish between experimental design, quasi-experimental, correlational, R&D, action research, classroom action research, model development, survey, descriptive, and so on.

They also calculate the population and sample size lowly. Even though the research sample is reported as normal, the sampling technique lacks detail, so most of it is not normal. Students struggle with instrument grid compilation. Students struggle with operational definitions, dimension selection, and dimension indicator selection. Using indicators, students struggle to create research instruments. Analyzing research instrument test results for instrument calibration is difficult. Students also struggle with SPSS, AMOS, Lisrel, smart PLS, and other statistical software. Most of them lack practice and cannot read SPSS analysis results and other applications.

The inability to analyze research data analysis results, particularly in determining the criteria in accordance with the provisions agreed upon by the statistician, is a common area of struggle for many students. This problem will have repercussions for putting together a discussion that draws connections between studies (Sulistyo, 2015). Many students still struggle when asked to draw conclusions. In most cases, we draw more conclusions than we did when we first posed the problem. Many studies' findings still don't line up with the stated goals and hypotheses or even the stated problems (Sillvia, 2007). Theoretical ramifications

and practical suggestions for interested parties can be inserted after the direct average of suggestions is completed. The recommendation should also be three when the conclusion is three. Straightening can be accomplished with bamboo and paper.

The creation of a bibliography is another area in which students continue to struggle. They were unable to differentiate between the APA, Copernicus, and Harvard writing styles, along with other formats. The vast majority of student bibliography lists still contain fewer names of authors and publications than are mentioned in the compiled text. Students are also unable to compose a bibliography in alphabetical order, starting with A and working their way through Z.

As a result of the limited amount of time that lecturers have to devote to teaching, the vast majority of the corrections that they make to the work that students turn in are only brief, do not include specifics, are not as thorough, and only focus on the introduction. This is because lecturers only have time to read the first part of the paper. Because each lecturer is responsible for a unique set of responsibilities, not much progress has been made in the process of using peer review to correct students' work. Peer review affects the students' writing ability (Aydawati et al., 2022; Huisman et al., 2019; Sartika & Arriyani, 2020). Teachers' feedback also promotes the impact to the students' writing (Benson & DeKeyser, 2019; Hashemifardnia et al., 2019; Wahyuni, 2017).

Based on the background of the problem above, the problem of this research can be formulated:

1. How does peer review affect the quality of students' writing?
2. What is the effect of corrective feedback on the quality of students' writing?
3. What is the effect of peer review and corrective feedback together on the quality of students' writing?

2. Literature Review

2.1 Academic Writing Theory

The term "academic writing theory" is used to describe a specific mode of expression adopted by authors as they establish the logical limits of their respective fields of study (Nygaard, 2015). Issues of formal style, using a third-person point of view, concentrating on the research problem at hand, and employing language that is consistent with the language of the field of science about which one is writing (law, medicine, physics, chemistry, agriculture, and the peculiarities of the sciences) are all hallmarks of academic writing (Hartley, 2008). The meaning of this complex idea or concept has been settled upon by a consensus of scientists in the relevant field (Silvia, 2007).

According to Murray et al. (2006), some of the most important aspects of academic writing are as follows: 1) a broad overview of the subject matter; 2) Tone: the general tone or intonation of a piece of writing, also known as the attitude that is conveyed through the writing. 3) diction, or the selection of the terms that are most appropriate; 4) The language on which there is the greatest consensus; 5) Punctuation: the words and punctuation that are most appropriate to use in order to determine the intonation of a narrative on a scientific work. Punctuation should be used very carefully; for instance, using exclamation marks to express high notes is not a good idea because there are other events that are both better and more exciting; 6) Citing academic sources and providing a list of references in the form of

bodynotes, footnotes, and endnotes is very important when showing respect for the work that other people have done in the scientific community; 7) Rationality that is grounded in empirical evidence because of its connection to the canon of knowledge associated with the field under consideration. This is where the requirement for scientific sources, including peer review, comes into play. 8) Thesis-driven, which means that the investigation, analysis, proving, denying, rejecting, aborting, or strengthening of the theory is based on a specific perspective, idea, or topic that serves as the starting point of an article; 9) Complexity and higher-order thinking, which can be accomplished through the utilization of complex thinking and higher-order thinking, beginning with the ability to analyze, evaluate, and create (Murray et al, 2006).

According to Street's (2015) article, "Academic Writing: Theory and Practice," academic writing is a skill that can be honed through ethnographic writing practices that can only be instilled in students or students through collaboration between students and lecturers or students and teachers. While there are many possible formats for academic writing, scientific writing in English follows relatively few of them (Lea & Street, 2006). It has been argued that the cognitive repercussions of the autonomous model of literacy used in the social sciences (where terms like "ethnography," "culture," and "ideology" are commonplace) differ from those used in the exacta sciences. distinct from the foundations of epistemology.

Literacy practices that have cross-cultural and social boundaries are referred to as "practice literacy," and they can be studied from an ethnographic viewpoint (Street, 2000). Grammar is the backbone of the theory behind academic writing, discourse, linguistic characteristics, and subject-specific genres (Leung, 2015).

Current events can be discussed using academic literacy, with students explaining their reasoning and teachers or lecturers correcting any bias they may have introduced (Leung & Street, 2014). The "skills" that students develop as they learn to compose scientific papers constitute the topic at hand. It is hoped that after diligent practice, there will be mutual understanding in a variety of contexts, most notably between classes, institutions, and nations (Martin & Jones, 2012).

Finding out how multilingualism has changed over time requires conducting sociolinguistic research, which in turn helps with our understanding of epistemology, critical theory, and ethnography. The literature also reveals the existence of verbal interactions, reading, and writing, all of which must be studied collaboratively by professors and their students or students and their professors (Blommaert, 2013).

2.2 Peer review

In the process of learning how to write scientific papers, peer review is used to improve the quality of the papers based on the standards for good scientific papers. Peer review is when students look over each other's work (Sulistyo, 2015). The peer review process is done by the professor who gives the course assignments and other professors who work in the same or a similar field. Peer review is a way for students to find out if the work they've done on their scientific papers meets the quality standards for scientific works (Kumar, 2009). These standards include objectives, methods, results, discussions, and conclusions (Sulistiyo, 2016).

Peer review also looks at how relevant and in line with scientific standards a scientific paper is, how strong the theory is, how accurate the hypotheses are, how well the method was

chosen (Falagas, 2007), how much data was used, how valid and reliable the data was, and how well the analysis and conclusions were done. conclusion (Irawati, 2015).

Peer reviews are beneficial if they are carried out seriously, with caution, perseverance, and the overall content of student scientific papers (Ware, 2008). This is because they will improve the quality of practice in compiling scientific papers, improve the reputation of the authors, and reduce academic fraud. Additionally, they will increase the novelty of the findings that were obtained. Peer reviews will benefit if they are carried out seriously, with caution, and the overall content of student scientific papers (Liumbruno, et.al, 2012).

Throughout the course of history, peer review has been considered to be the most interesting process to undertake in order to improve the substance and correct various errors that frequently occur (Spier) (2002). However, Simons-Morton et al. (2012) recommended avoiding the practice of glorifying peer review for the following reason: sometimes authors are far more mastered in the field of writing than peer reviewers who do not focus on the writing that is being reviewed. This is because the level of expertise that each person possesses is very specific.

A scientific paper can be subjected to peer review not only before it is published, but also after it has been published, and this review can be carried out in the same manner as if the paper were going to be used for promotion (Swoger, 2014). Because the party whose work is being evaluated by peers receives meaningful input, the results of the evaluation are essentially required to satisfy that party (Schley, 2009). As a result, in order to conduct a review of a piece of work, it is necessary to write based on the guidelines for writing scientific papers (Steingraber) (1985). Even though it would be beneficial to get significant input from more people, many people are uncomfortable with the idea of being evaluated (Bohannon, 2013). There is no risk involved in having a reputable scientific peer evaluate a piece of work, according to the available research (Lucey, 2013).

2.3 Corrective Feedback

According to Literatus, corrective feedback is instructor commentary on assigned coursework that is intended to strengthen newly acquired skills (AbuSeileek, 2013). Students are more motivated as a result of receiving feedback on their work because they know their assignments have been read by their professors and that they will receive constructive criticism that will help them become better writers (Abadikhah & Ashoori, 2012).

To lessen the likelihood of misunderstandings, corrective feedback can yield analysis results that are at odds with the author's intended meaning (Afraz & Chaemi, 2012). When given with sincerity, corrective feedback can have a profound impact (Aghajanloo et.al, 2016). In either case, the purpose of providing feedback is to offer genuine input for the enhancement of scientific work, and this is true whether the feedback is provided in the form of coding or not (Ahmadi-Azad, 2014). After implementing corrective feedback, both scaffolded and non-scaffolded outcomes are possible (Amirghassemi & Saeidi, 2013).

Corrective feedback in lecture assignments is loved by lecturers but hated by students because they must make significant improvements (Amrhein & Nassaji, 2010). Each student is unique, so feedback should be given individually, not in groups (Bakri, 2015). Lecturers must hear students' academic manuscripts' hearts (Best et al, 2015). Students can be understanding or discouraged by feedback (Bitchener, 2008). Students understand because

feedback sharpens competence (Chen, et.al, 2016). Again, feedback helps students progress (Daneshvar & Rahimi, 2014). Corrective feedback helps students improve grammar, writing, meta-linguistics, and the efficacy of written corrective feedback (Ebadi, 2014; Donneshvar & Rahimi, 2014). The lecturer's habits determine the typology of all feedback inputs (Ellis, 2009).

2.4 Quality of Academic Writing

The ability to write has a significant impact on the caliber of the work that is produced in academic settings. The author's ability to put words on paper directly correlates to the caliber of the finished product (Lea & Street, 2006). According to the opinions of a great number of industry professionals, the presence or absence of peer reviews is the primary factor that determines the quality of written work. The quality of the written work will be of a high standard when there is sufficient and effective peer review. According to the findings of other pieces of research, the provision of corrective feedback from knowledgeable individuals is required in order to enhance the quality of written work. Students develop an interest in writing that is sustained when they receive corrective feedback because it contains suggestions and inputs that are constructive and helpful for enhancing the overall quality of the writing (Ellis, 2009).

It is possible that instructors or lecturers will struggle to enhance the quality of student writing on occasion; however, if they make genuine efforts to do so, including through peer review and corrective feedback, it is hoped that they will be able to overcome these challenges (Falagas, 2007; Ebadi, 2014).

A good piece of academic writing cannot be produced in a short amount of time or through simple efforts; rather, it can only be produced through the simultaneous, continuous, programmed, and well-scheduled collaboration of students and instructors. Both results can be achieved by providing constructive criticism and working to improve grammatical accuracy (Daneshvar & Rahimi, 2014). Not only does this apply to students who speak English as their first language, but also to those who speak English as a second language (Shen et.al, 2016).

Hypothesis

H1: There is an influence of Peer Review (X1) on the quality of writing scientific articles of students (Y) in the English study program.

H2: There is an effect of Corrective Feedback (X2) on the quality of writing scientific articles of students (Y) in the English study program.

H3: There is a joint influence of Peer Review (X1) and Corrective Feedback (X2) on the qu ality of writing scientific articles of students (Y) in the English Study Program.

3. Research Methodology

3.1 Research Design

The approach that was taken in the execution of this study is a correlation design. The correlational approach is used either partially or simultaneously in quantitative design, which leans more toward the correlational approach. Peer Review (X1) and Corrective Feedback (X2) are the variables that are considered to be the study's independent variables, while the

quality of student scientific article writing is the variable that is considered to be the study's dependent variable (Y).

3.2 Study Sample

All 132 fifth-semester English majors at Mulawarman University constituted the population, and 85 of them were randomly selected to participate in the study. Proportional random sampling was used as the sampling technique. See Table 1.

Table 1. Population and Research Sample

Code of College	Population	Sample size	%
AA1	123	51	38,1
AB1	68	28	21,1
AC1	34	14	10,5
AD1	42	18	13,0
AE1	56	24	17,3
Total	323	135	100

3.3 Research Instruments

Researchers used a Likert scale questionnaire with a range of one to five in order to develop the dimensions and indicators that were used in the development of the instrument. This scale was used during the development of the instrument. A score of "1" indicates that the respondent strongly disagrees, while a score of "5" indicates that the respondent strongly agrees (Basrowi & Utamai, 2019). The variable known as Peer Review (X1) contains a total of ten items, the variable known as Corrective Feedback (X2) contains a total of ten instruments, and the variable known as Quality of Student Scientific Article Writing (Y) contains a total of twelve instruments. Prior to putting the instrument to use, both its validity and its reliability were put through their paces. Table 2 presents the findings of the validity test of this study.

Table 2. Validity and reliability test

No. of item	r	Sign	Conclusion	No of item	R	Sign	Conclusion
X1-1	0,652	0,00	Valid	X2-7	0,791	0,00	Valid
X1-2	0,891	0,01	Valid	X2-8	0,886	0,00	Valid
X1-3	0,686	0,02	Valid	X2-9	0,775	0,00	Valid
X1-4	0,675	0,00	Valid	X2-10	0,757	0,00	Valid
X1-5	0,657	0,00	Valid	X3-1	0,771	0,00	Valid
X1-6	0,871	0,00	Valid	X3-2	0,674	0,01	Valid
X1-7	0,674	0,01	Valid	X3-3	0,857	0,00	Valid
X1-8	0,657	0,01	Valid	X3-4	0,861	0,00	Valid
X1-9	0,761	0,00	Valid	X3-5	0,783	0,00	Valid
X1-10	0,683	0,01	Valid	X3-6	0,771	0,00	Valid
X2-1	0,871	0,00	Valid	X3-7	0,693	0,01	Valid
X2-2	0,893	0,00	Valid	X3-8	0,832	0,00	Valid
X2-3	0,732	0,00	Valid	X3-9	0,774	0,00	Valid
X2-4	0,674	0,01	Valid	X3-10	0,673	0,01	Valid
X2-5	0,673	0,01	Valid	X3-11	0,821	0,00	Valid
X2-6	0,752	0,00	Valid	X3-12	0,541	0,02	Valid

Meanwhile, instrument reliability was measured by the Chronbach's alpha formula, with the results that appear in table 3.

Table 3. reliability Test

Variable	Coefficient of Cronbach's Alpa	Standards used	Conclusion
Peer Review (X_1)	0,84	> 0,6	Reliable
Corrective Feedback (X_2),	0,85	> 0,6	Reliable
quality of scientific articles (Y).	0,81	> 0,6	Reliable

Based on the results of the validity and reliability tests, it is known that the research instrument is feasible to use for data collection.

3.4 Data analysis

To test the first and second hypotheses, the research data that has been collected is processed using one predictor regression analysis (simple regression). Two predictor regression was used to test the third hypothesis. Before putting the hypothesis to the test, the traditional assumption test involves ensuring that the data are normal, homogeneous, and linear (Basrowi & Maunnah, 2019). The entirety of the data analysis process is carried out with the assistance of SPSS software applications.

4. Findings

4.1 Descriptive Analysis

Table 4. Descriptive Analysis

Description	Peer Review (X_1)	Corrective Feedback (X_2)	Quality of scientific article writing (Y)
Mean	3,864	3.762	4,321
Median	3	3	4
Mode	3	4	4
Standard Deviation	3,214	3,243	3,542
Range	5	5	5
Maximum	1	1	5
Minimum	5	5	5

Table 4 shows the results of the descriptive statistics of this study. First, the average for the peer review variable is 3,864 median of 3, and mode of 3. Second, the corrective feedback variable obtained an average of 3,762 median of 3 and mode of 3. Third, the variable of scientific writing ability students obtained an average of 4,321 with Media 4 and mode of 4. Thus, the largest mean obtained was the variable for the quality of scientific work, followed by the peer review variable and the lowest was the corrective feedback variable.

4.2 Assumption test

4.2.1 Normality test

Based on the results of the normality test with the Kolmogorov Smirnov Z test, the coefficients are entirely insignificant, or in other words all variables are normal. See Table 5.

Table 5. Normality Test

Description	Kolmogorov Smirnov Z	Significant	Conclusion
Peer Review (X_1)	12,3478	0,0643	Normally
Corrective Feedback (X_2)	14,2376	0,0845	Normally
Quality of scientific article writing (Y)	18,4332	0,7453	Normally

4.2.2 Homogeneity test

The homogeneity test used is the Levene test. All homogeneity test results show very good results, meaning that all variables are homogeneous as seen in Table 6.

Table 6. Homogeneity test

Description	Lavene	Conclusion
Peer Review (X1)	0,65	Homogen
Corrective Feedback (X2)	0,54	Homogen
Quality of scientific article writing (Y)	0,65	homogen

The results of the homogeneity test with the Levene test obtained that the entire coefficient is above, 0.5 so everything is homogeneous.

4.2.3 Linearity Test

Table 7 that shows the results of the linearity test, indicates that all of the tests showed the linearity between the variables X_1 to Y, and X_2 to Y. For more details, see the following table.

Table 7. Linearity test

Description	F	Sign	Conclusion
X_1—Y	14,532	0,0041	Linier
X_2—Y	18,342	0,0034	Linier

Source: 2022 data analysis results

4.2.4 Multicollinearity test

To see the multicollinearity test table 8 was presented. The results of the homogeneity test with the Levene test obtained that the entire coefficient is above, 0.5 so everything is homogeneous.

Table 8. Multicollinearity test

Description	R	Sign	Conclusion
X_1—X_2	0,432	0,0534	No multicollinearity was detected

Based on the results of the assumption test that has been carried out starting from the normality, homogeneity, linearity, and multicollinearity tests, it can be concluded that all of them meet the requirements for hypothesis testing with inferential statistics, in this case, simple regression test and multiple regression.

4.3 Hypothesis Testing

Hypothesis I: there is an effect of peer review on the quality of student scientific work

The results of the first hypothesis test can be seen in Table 9.

Table 9. Peer review regression test on the quality of student writing

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1800.776	1	1800.776	85.888	.000[b]
	Residual	2788.557	133	20.967		
	Total	4589.333	134			
a. Dependent Variable: Quality_Of_Writing						
b. Predictors: (Constant), Peer_Review						

The results show that peer review significantly affects the quality of student scientific writing, as shown by the results of simple regression analysis with a single predictor (F = 85.888, p .000; R = 0.626; R2 = 0.392; t = 16.172, p .000). R2 is obtained by 0.392. Thus, the quality of student scientific work was determined to 39.2% by the peer review variable and 60.8% by other, unmeasured factors such as the amount of time spent exercising, the frequency with which students read scientific papers, the students' language skills, etc. That is to say, if a professor cares about the quality of student writing, one strategy is to have students review each other's work after it has been collected for an assignment. To ensure that the information provided to students is consistent, it is common practice for lecturers to have their students submit written works for peer review by lecturers with colleagues from lecturers who share the same scientific base or cognate.

Hypothesis II: There is a significant effect of correction feedback on the quality of student scientific work.

To test the second hypothesis, simple regression with one predictor was used. See Table 10 below.

Table 10. Correction feedback regression analysis on the quality of student scientific work

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2822.800	1	2822.800	212.525	.000[b]
	Residual	1766.533	133	13.282		
	Total	4589.333	134			
a. Dependent Variable: Quality_Of_Writing						
b. Predictors: (Constant), Corrective_Feedback						

Based on the results of the correction feedback regression analysis, F reg is 212.525 with a significance of 0.000 with an R of 0.763 and R2 of 0.615 with a T of 19.996 sign of 0.000. Thus, it can be understood that correction feedback has a significant influence on the quality of student scientific work. The contribution of correction feedback is 61.5% to the quality of

student scientific work, while the remaining 38.5% is influenced by other variables not examined, such as the role of peers, the intensity of reading other people's works, the ability to compose effective sentences, and others.

This is because the level of quality of student writing is largely determined by the level of correction feedback received by students. When the correction feedback received by students is good, the quality level of student writing will also increase. This of course applies to the opposite condition.

Hypothesis III: There is a significant effect between peer review and correction

feedback together on the quality of student writing

The following table 11 shows the results of testing of hypothesis III.

Table 11. Multiple regression results of peer review and correction feedback on the quality of writing

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2929.839	2	1464.919	116.523	.000[b]
	Residual	1659.494	132	12.572		
	Total	4589.333	134			
a. Dependent Variable: Quality_Of_Writing b. Predictors: (Constant), Corrective_Feedback, Peer_Review						

According to multiple regression analysis, the peer review and correction feedback variables together contribute 63.8% to student scientific work quality, while the remaining 36.2% is influenced by other variables not included in this research model. Innovative learning models, modules, YouTube media, and others are variables. When peer review and correction feedback increase, student scientific writing quality increases, and vice versa. See Table 12.

Table 12. Summary of analysis results

effect	R	R^2	Status
X_1-Y	0,626	0,392	Lowest influence
X_2-Y	0,784	0,615	Second
$X_{1,2}$ –Y	0,799	0,638	Highest influence

Table 12 shows that the joint influence of x1 and X2 on Y has the largest contribution, followed by X2 on Y, and finally X1 on Y.

5. Discussion

In comparison to earlier findings, which primarily relied on qualitative research designs, this study brings its own unique perspective to the table (Sulistyo, 2016; Street, 2015; Sillvia, 2007). Researchers have the ability to determine, through the use of quantitative research, what percentage of the contribution was made by each variable, either partially or simultaneously. The results of this study also have a novelty in comparison to previous

studies, which were carried out, for the most part, using the classroom action research (CAR) approach (Schley, 2009); where CAR has many weaknesses because 1) it does not use a control class, 2) it does not use sampling techniques, 3) it does not use inferential statistical analysis, 4) it is very subjective, and 5) it is unable to make predictions on various possibilities that will occur. The results of this study also have a novelty in comparison (Murray, Rovena, & Moore, 2006).

This research has been shown to have its own uniqueness when compared to the findings of previous researchers. This is due to the fact that the model that was constructed is a simultaneous model, and it includes variables that have only been infrequently used by other researchers. college student. This study is very different from the findings of Liumbruno et al. (2012), which focuses more on the strategy of writing publications for students with an emphasis on aspects of grammar. In other words, this study is very different from the findings of Liumbruno et al. (2012).

Providing feedback on how to fix mistakes has more of an impact than peer review. This makes a lot of sense because students will always remember the people who took the time to provide them with feedback, and they won't forget the people who provided them with input, even if they forget some of it over the course of their lives. The teachers' feedback will affect, mostly the positive ones, the students' writing (Benson & DeKeyser, 2019; Hashemifardnia et al., 2019; Wahyuni, 2017).

Good feedback correction will have a long-term impact and is always internalized by students, both in their memories and in their everyday lives. This is true despite the fact that the lecturer's effort in providing correction is much heavier than just reviewing. He thinks that his younger relatives and friends will find it fascinating and scientifically charged, and that he will pass this information along to them as a good story.

When compared to the research of Leung (2015), which also places an emphasis on the ethnography of writing, this finding stands out as particularly novel. This research demonstrates the efficacy of collaborative peer review and corrective feedback in raising the bar for student writing. Therefore, if professors truly care about their students' writing development, they should prioritize enhancing both the quality of peer review and corrective feedback simultaneously.

Because this research was only carried out at a selected few students in East Kalimantan, the generalization may only be applicable to students in that region. However, it is possible that it can also be generalized to students in other regions who have characteristics that are not very dissimilar, considering the vast majority of students in Indonesia and other countries. This research's limitation is that its generalization may only be applicable to students in East Kalimantan. is homogeneous.

6. Conclusion

The data analysis and discussion lead to the following conclusions: first, the use of peer review has a substantial impact on the quality of student research papers. Teachers can implement peer review of student work when they're concerned about the standard of their students' papers, giving students useful feedback they can use to enhance their future efforts. Second, the quality of student writing is significantly impacted by receiving correction feedback. In other words, when teachers take correction feedback seriously, students' writing improves.

The converse is also true; when a professor gives poor correction feedback, students' papers tend to suffer as a result. Finally, the combination of peer review and correction feedback has a substantial impact on student writing quality. Teachers who care about their students' writing can do so by focusing on these two factors, as their combined effect on student writing is greater than that of either peer review or correction feedback alone. Compared to peer review, corrective feedback has a much higher impact on student learning, so instructors should put it higher on the priority list.

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