# DESCRIPTIVE STATISTICS FOR FINDING THE IMPACT OF PEER FEEDBACK ON WRITING SKILL EMPOWERMENT IN EFL CLASS

# Kanar Zirak Haseeb Chicho and Mowafaq Muhammed Al Kassab

English Language Teaching Department Faculty of Education Tishk International University Erbil, Iraq

Mathematics Education Department
Faculty of Education
Tishk International University
Erbil, Iraq
e-mail: mowafaq.muhammed@tiu.edu.iq

## **Abstract**

For the past thirty years, language education researchers have concentrated on improving writing abilities. Several methods and strategies have been used by language teachers to enhance the

Received: April 8, 2023; Accepted: May 19, 2023 2020 Mathematics Subject Classification: 62P25.

Keywords and phrases: writing skills, peer feedback, criticism, descriptive statistics, one sample *t*-test, analysis of variance.

How to cite this article: Kanar Zirak Haseeb Chicho and Mowafaq Muhammed Al Kassab, Descriptive statistics for finding the impact of peer feedback on writing skill empowerment in EFL class, Advances and Applications in Statistics 87(2) (2023), 225-236.

http://dx.doi.org/10.17654/0972361723035

This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Published Online: May 29, 2023

P-ISSN: 0972-3617

students' writing skills. One of these crucial methods for enabling the students to write their thoughts more effectively is peer feedback. The researchers also defined peer feedback as helpful criticism from other students majoring in the same subject. It enables the language learners to deal with issues of writing anxiety, discomfort, and mistake-making fear. Additionally, peer feedback allows the students to comment on one other's papers. Peer criticism sharpens the language learners' perceptions and critical faculties. This study aims to highlight the value of peer feedback in classroom writing. Data collection method included a questionnaire distributed to the participants of this study which included 90 participants from Tishk International University (TIU) studying in the faculty of Education. The researchers analyzed the data by using Minitab 19. One sample t-test and analysis of variance are used. It is concluded that peer feedback is positively significant in enhancing writing skill neither the grades nor the departments affect their decision. The students consider peer feedback as an essential dialogue in writing.

#### Introduction

Peer feedback in English writing classrooms has been the subject of a growing collection of studies over the past thirty years. In ESL and EFL writing courses, peer feedback, also known as peer response (Hyland [7]), peer evaluation (Tahir [16]), or peer editing (Yu and Lee [19]), is seen as a typical instructional practice. Most people agree that it refers to a practice in writing classes where a student provides input on a friend's writing while it is still in the drafting stage. These learners take on the roles of reviewers and recipients of criticism. Peer feedback is the use of students as sources of knowledge and as communicators for one another in such a way that students take on the roles and responsibilities typically held by a properly qualified teacher, tutor, or editor when commenting on and offering feedback on one another's drafts in both written and oral formats during the writing process. Peer evaluation has been credited for helping students feel more at ease, increasing their awareness of their audience, and producing better drafts. With a few exceptions, the majority of the studies about assessment and evaluation mostly focus on the students who get/receive feedback. The

majority of studies on the use of peer criticism in English writing have produced encouraging findings. Some researchers, however, are more guarded about the use of peer feedback, claiming that students may lack confidence in their readers or feel irritated as a result of misunderstandings with their peers (Mangelsdorf and Schlumberger [9], and Carson and Nelson [5]). Although there is a substantial body of literature that examines the role of peer feedback in English writing education, a thorough evaluation that explicitly focuses on earlier research on English as a foreign language in college writing situations is lacking. The present research has the following purposes:

- (1) To highlight the benefits of peer feedback in EFL writing class.
- (2) To explore the students' points of view regarding peer feedback.
- (3) To show the value of peer assessment in writing class.

Furthermore, the inquiries of the current study are:

- (1) What are the roles of peer feedback in developing writing skills?
- (2) How do peer editing writing skills hinder?
- (3) Why does peer evaluation need to be a part of language classes?

#### **Literature Review**

#### Assessment and evaluation

Evaluation is the process of assessing the quality of a performance, a product, or the application of a procedure to a standard. In the past decade, researchers and educators have been concerned with accomplishing an understanding of the nature of language skills and the reasons that influence language tests including empowering ways of assessment that subsist with language use (Chen [6]). The expanded understanding of language proficiency as communicative competence that has arisen in applied linguistics has had a significant impact on how language testers conceptualize language abilities. Parker et al. [13] stated that a major

challenge for language testers has been how to precisely define these abilities and how they interact in order to allow for their measurement, despite the fact that this view of language proficiency offers a much richer conceptual basis for characterizing the language abilities to be measured. Researchers in the regards of the effects of another characteristic of assessment including background knowledge, cognitive style, native language, ethnicity, and sex on test performance have also been influenced by advancements in second language acquisition (Bachman [2]). In addition, more advanced analytical methods are being utilized to both untie the complex web of language abilities and ensure that the measures of these abilities are accurate, efficient, and suitable for the purposes for which they are designed. These developments in evaluation have had an impact on language testing research and practice. Educators can employ a range of evaluation techniques to support the students in developing skills for lifetime learning. They can also help the students into moving in the same direction by using evaluation procedures. A performance, a work product, or a learning skill is assessed, and feedback is provided that documents growth and offers instructions for enhancing future performance.

## Peer feedback and writing skill

Peer feedback activities are those in which students collaborate to provide comments on one another's writing in both written and oral formats through active engagement with each other's progress over multiple drafts. Peer feedback activities are also known as peer review, peer response, peer editing, or peer evaluation activities (Liu and Edwards [8]) shifted from L1 to L2 (English as a second language or English as a foreign language, or ESL/EFL) writing instruction in the 1980s (Zamel [21]). Since 1990, they have been used extensively in ESL/EFL writing classes as a teaching strategy to encourage students to offer feedback on their peers' drafts in order to improve their own writing (Berg [4], Carson and Nelson [5], Mendonca and Johnson [10], Min [11], Nelson and Murphy [12], and Paulus [14]). These found that peer feedback was thought to be able to promote group learning, help learners become more independent, improve audience

Descriptive Statistics for Finding the Impact of Peer Feedback ... 229 awareness, encourage text ownership, etc. Also, it was discovered that the thorough instruction and training of students in peer feedback prior to peer feedback activities had an impact on the perspectives of student reviewers, the attitudes of student writers, and the qualities of students' engagement (Stanley [15]). Furthermore, several theories, including process writing theory, collaborative learning theory, interactionist theory in second language acquisition and the cognitive and psycholinguistic fields, as well as sociocultural theory, have been used to support the use of peer feedback in EFL writing instruction (Yu and Lee [20]). Peer feedback, for instance, is thought to facilitate the change from inter-psychological to intrapsychological functioning and assist student writers in moving from stages

## Methodology

of other-regulation to self-regulation (Villamil and De Guerrero [17]).

# Research design

Enriching writing skills requires thoughtful and sensitive feedback. The students have different reactions to the feedback on their writing. This study explores students' perceptions of peer feedback on their paragraphs. The hypothesis of this study was that the students prefer feedback from their classmates rather than from their teachers. To find out which variables are more sufficient and related to each other a quantitative research design had been implemented in this study. "Quantitative research designs are often used to look at causal relationships, but they can also be used to look at associations or relationships between variables" (Baker [3, p. 156]).

#### Data collection, data analysis, and participants

The data of the current study consist of ninety students and had been collected from Tishk International University, Faculty of Education, including five departments namely: English Language Teaching Department, Biology Education Department, Physics Education Department, Mathematics Education Department, and Computer Education Department. The description of these participants is given in Table 1.

Table 1. Description of the participant

Departments	Number	Percentage		
English Language Teaching	32	36%		
Biology Education	17	19%		
Mathematics Education	12	13%		
Physics Education	15	17%		
Computer Education	14	15%		
Total	90	100.00		
Grades				
First	50	56%		
Second	31	34%		
Third	7	8%		
Forth	2	2%		
Total	90	100.00		

The participants were taken writing classes and were involved with both peer feedback and teacher feedback. An online survey containing 13 questions including demographical questions had been created by the researchers. The Participants' Demographic Information are given in Table 2.

**Table 2.** Descriptive statistics

N	Mean	Coef. var.	Minimum	Median	Maximum
90	23.70	26.46	8.000	25.000	35.000

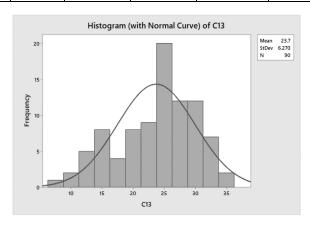


Figure 1. Histogram with normal curve.

We see from Table 2 that the average score is 23.700 with median value 25.00 which indicates that the data of the study is approximately normally distributed as shown in Figure 1. The maximum score is 35.000 which means completely agree and the minimum value is 8.000 means completely disagree.

To see whether the students are with this survey, one sample *t*-test is used. The null hypothesis assumes that the students are neutral towards this survey, that is the average respond of all the students is 21. One sample *t*-test is applied to test the null hypothesis  $H_0: \mu = 21$ , against the alternative that  $H_1: \mu \neq 21$ . The test shows that there is a significant difference compared with the hypothetical value  $\mu = 21$  as shown in Table 3.

**Table 3.** One sample *t*-test

N	Mean	St. dev.	SE mean	<i>t</i> -value	P-value
90	23.70	6.270	0.661	4.09**	0.000

<sup>\*\*</sup>Means highly significant

We see from Table 3 that  $H_0$  is rejected, as it is shown that t is equal to 4.09 with P-value of 0.000 which means that the students are not neutral towards this survey.

The one-way analysis of variance (ANOVA) test is used to see whether peer feedback in writing classrooms has an effect on the grades, or the departments of the participants. Tables 4 and 5 present the ANOVA.

Table 4. Analysis of variance between grades

Source	DF	Adj. SS	Adj. MS	F-value	<i>P</i> -value
Grades	3	220.4	73.47	1.93	0.131
Error	86	3278.5	38.12		
Total	89	3498.9			

Table 4 shows that the grades have no significant difference (F = 1.93, P = 0.131).

**Table 5.** Analysis of variance between departments

Source	DF	Adj. SS	Adj. MS	F-value	P-value
Factor	4	161.5	40.39	1.03	0.397
Error	85	3337.4	39.26		
Total	89	3498.9			

Table 5 shows that the departments have no significant difference (F = 1.03, P = 0.397).

# **Findings and Discussions**

The majority of the students suffer from expanding their writing skill due to a lack of proper evaluation in language classes (Abbott and Berninger [1]). The main purpose of this study was to explore the students' points of view regarding peer feedback during writing class. The data of the present study shows that the majority of the participants agree on having a positive impression during receiving feedback from their peers. Furthermore, most of the participants believe in writing well when their classmate evaluates their writing in the classroom. It means that the participants agree on the high value of peer feedback in writing class. A few of the participants had negative responses about them. The results of this study match with the study of Yu and Lee [20]. They found that peer feedback provides a positive environment for writing class and the students can write in an appropriate way. On the same hand, the results show that the students prefer feedback from their classmates. On the other hand, they also prefer negative feedback from the teacher. These results align with the study (Paulus [14]). He found that a positive change happened in the student's essay after having multiple feedback in the class. It is indicated as in Table 6 that the majority of the participants have positives response on the importance of providing peer feedback. They think that they feel more comfortable and confident when their classmates evaluate their writing. On the same hand, Wu and Schunn [18] found that the students are more relaxed when they receive feedback from their pairs rather than from the teacher. The descriptive statistics for the items are given in Table 6.

**Table 6.** Descriptive statistical analysis for scale items

Scale item	Completely disagree	Somewhat disagree	Neither disagree nor agree	Somewhat agree	Completely agree
I feel positive when my classmate	9	10	14	31	26
gives me feedback.	10%	11%	16%	34%	29%
I am writing well when my classmate	4	15	18	39	14
evaluates my writing in the classroom.	4%	17%	20%	43%	16%
I can write well when my classmate	7	8	16	32	27
gives me positive feedback.	8%	9%	18%	35%	30%
I can write well when the teacher	21	12	20	15	22
gives me negative feedback.	23%	13%	22%	17%	25%
I feel more comfortable when my	12	9	16	35	18
classmate evaluates my writing.	13%	10%	18%	39%	20%
I feel more confident when my	8	11	18	33	20
classmate evaluates my writing.	9%	12%	20%	37%	22%
It is more difficult to write without my	20	12	29	15	14
classmate's feedback.	22%	13%	32%	17%	16%
How peer feedback is important for me?	Not very important	Not important	Normal	Important	Very important
	0	4	21	29	36
	0%	5%	23%	32%	40%

It is clear from Table 6 that 63% of the participants generally agree that they get a positive feeling when their classmate gives them feedback. There is, however, a 10% who completely disagree with these sentiments. A slightly smaller number of respondents, 59%, agree that they write well when classmates evaluate their writing in the classroom, and 65% admit writing well when given positive feedback from classmates. However, only 37% agreed to write well when the teacher gives them negative feedback, with approximately the same percentage stating the opposite. Almost 60% generally agree that they feel more comfortable and more confident when classmates evaluate their writing. Indeed, the table shows that more than 70% of respondents considered peer feedback an important aspect of their learning. In summary, the table provides insights into students' perceptions of the importance of peer feedback in a classroom setting. The majority of respondents indicate that they find peer feedback to be important and helpful for their writing skills, and they feel positive, comfortable, and confident when receiving feedback from their classmates. The data also shows that negative feedback from teachers may not be as helpful as positive feedback from peers. It is clear from Table 6, also, that 72% of the participants rated for important and very important to have peer feedback.

#### **Conclusion and Recommendations**

Education has the power to change an individual's skills. This study focused on assessment of language skills. The relationship between peer feedback and writing skill had been considered. Peer feedback encourages the students to see the mistakes on their papers without feeling down and demotivated. For empowering writing skills, the students are required to write about various topics in the classroom. Without assessment, these writing drafts can neither be developed nor corrected. The benefits of peer feedback occur in the last stage of writing. The students feel positive when their classmates comment on their paragraphs. They can also rewrite a wellarranged paragraph after receiving feedback from their peers. Additionally, the students can enhance their writing skills through multiple feedback such as peer feedback and teacher feedback. They are motivated when they receive friendly corrections from their classmates. Furthermore, the students feel more comfortable and confident when they are involved with peer feedback. Another significance of peer feedback is that peer feedback facilitates writing with almost no difficulty. To conclude, this study recommends the implementation of peer feedback after each writing task. It also recommends providing thoughtful and sensitive comments for comforting the students in writing class. Peer assessment, review, and feedback have been advocated for more than 40 years, and during the past three decades, an increasing amount of research has been conducted in both first- and foreign-language writing situations. Peer review is still a difficult and perplexing topic in education. Particularly, concerns over the value of peer feedback are regularly voiced. Peer review has been the subject of extensive research in L2 studies on a variety of topics pertaining to the method, product, and perspectives of peer review. Previous studies have generally taken a writer/reviewer/comment-centric approach to the process

Descriptive Statistics for Finding the Impact of Peer Feedback ... 235 and product ends of research, concentrating on the characteristics of comments as a whole and the consequences of the reviewing process.

#### References

- [1] R. D. Abbott and V. W. Berninger, Structural equation modeling of relationships among developmental skills and writing skills in primary-and intermediate-grade writers, Journal of Educational Psychology 85(3) (1993), 478.
- [2] L. F. Bachman, Assessment and evaluation, Annual Review of Applied Linguistics 10 (1989), 210-226.
- [3] C. Baker, Quantitative research designs: experimental, quasi-experimental, and descriptive, Evidence-based Practice: An Integrative Approach to Research, Administration, and Practice, Jones & Bartlett Learning, 2017, pp. 155-183.
- [4] E. C. Berg, The effects of trained peer response on ESL students' revision types and writing quality, Journal of Second Language Writing 8 (1999), 215-241.
- [5] J. G. Carson and G. L. Nelson, Chinese students' perceptions of ESL peer response group interaction, Journal of Second Language Writing 5(1) (1996), 1-19.
- [6] T. Chen, Technology-supported peer feedback in ESL/EFL writing classes: a research synthesis, Computer Assisted Language Learning 29(2) (2014), 365-397.
- [7] K. Hyland, Second Language Writing, 2nd ed., Cambridge University Press, Cambridge, UK, 2019.
- [8] Jun Liu and Jette Hansen Edwards, Peer Response in Second Language Writing Classroom, University of Michigan Press, USA, 2002.
- [9] K. Mangelsdorf and A. Schlumberger, ESL student response stances in a peerreview task, Journal of Second Language Writing 1(3) (1992), 235-254.
- [10] C. O. Mendonca and K. E. Johnson, Peer review negotiations: revision activities in ESL writing instruction, TESOL Quarterly 28(4) (1994), 745-769.
- [11] H. T. Min, The effects of training peer review on EFL students' revision types and writing quality, Journal of Second Language Writing 8(3) (2006), 265-289.
- [12] G. L. Nelson and J. M. Murphy, An L2 writing group: task and social dimensions, Journal of Second Language Writing 1(3) (1992), 171-193.

- 236 Kanar Zirak Haseeb Chicho and Mowafaq Muhammed Al Kassab
- [13] P. E. Parker, P. D. Fleming, S. Beyerlein, D. Apple and K. Krumsieg, Differentiating assessment from evaluation as continuous improvement tools [for engineering education], 31st Annual Frontiers in Education Conference, Impact on Engineering and Science Education, Conference Proceedings (Cat. No. 01CH37193) (Vol. 1, pp. T3A-1), IEEE, 2001.
- [14] T. Paulus, The effect of peer and teacher feedback on student writing, Journal of Second Language Writing 8 (1999), 265-289.
- [15] J. Stanley, Coaching student writers to be effective peer evaluators, Journal of Second Language Writing 1 (1992), 217-234.
- [16] I. H. Tahir, A study on peer evaluation and its influence on college ESL students, Procedia-Social and Behavioral Sciences 68 (2012), 192-201.
- [17] O. S. Villamil and M. De Guerrero, Socio-cultural theory: a framework for understanding the sociocognitive dimensions of peer feedback, Feedback in Second Language Writing: Contexts and Issues, edited by K. Hyland and F. Hyland, Cambridge University Press, New York, NY, 2006, pp. 23-42.
- [18] Y. Wu and C. D. Schunn, The effects of providing and receiving peer feedback on writing performance and learning of secondary school students, American Educational Research Journal 58(3) (2021), 492-526.
- [19] S. Yu and I. Lee, Understanding EFL students' participation in group peer feedback of L2 writing: a case study from an activity theory perspective, Language Teaching research 19(5) (2015), 572-593.
- [20] S. Yu and I. Lee, Peer feedback in second language writing (2005-2014), Language Teaching 49(4) (2016), 461-493.
- [21] V. Zamel, Writing: the process of discovering meaning, TESOL Quarterly 16 (1982), 195-209.