

# The Role of Students' Attitude towards Online Peer Feedback in Successful Uptake of Feedback in Argumentative Essay Writing

## Citation for published version (APA):

Taghizadeh Kerman, N., Banihashem, S. K., & Noroozi, O. (2022). The Role of Students' Attitude towards Online Peer Feedback in Successful Uptake of Feedback in Argumentative Essay Writing. In S. El Takach, & O. Tayfur Ozturk (Eds.), *Studies on Social and Education Sciences* (pp. 264-274). International Society for Technology, Education, and Science (ISTES).

## Document status and date:

Published: 01/12/2022

## Document Version:

Publisher's PDF, also known as Version of record

## Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

<https://www.ou.nl/taverne-agreement>

## Take down policy

If you believe that this document breaches copyright please contact us at:

[pure-support@ou.nl](mailto:pure-support@ou.nl)

providing details and we will investigate your claim.

Downloaded from <https://research.ou.nl/> on date: 23 Jan. 2023

Open Universiteit  
[www.ou.nl](http://www.ou.nl)



# **STUDIES ON SOCIAL AND EDUCATION SCIENCES 2022**

## **EDITORS**

**Dr. Suzanne El Takach  
Dr. Omer Tayfur Ozturk**



[www.istes.org](http://www.istes.org)



## **Studies on Social and Education Sciences 2022**

### **Editors**

Dr. Suzanne El Takach, Lebanese University Beirut, Lebanon

Dr. Omer Tayfur Ozturk, Necmettin Erbakan University, Turkey

**ISBN:** 978-1-952092-37-4

### **© 2022, ISTES Organization**

The “*Studies on Social and Education Sciences 2022*” is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Authors alone are responsible for the contents of their papers. The Publisher, the ISTES Organization, shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of the research material. All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations regarding the submitted work.

### **Date of Publication**

December, 2022

### **Publisher**

ISTES Organization  
Monument, CO, USA

### **Contact**

International Society for Technology, Education and Science (ISTES)

[www.istes.org](http://www.istes.org)

istesoffice@gmail.com

## Chapter 12 - The Role of Students' Attitude towards Online Peer Feedback in Successful Uptake of Feedback in Argumentative Essay Writing

Nafiseh Taghizadeh Kerman , Seyyed Kazem Banihashem , Omid Noroozi 

### Chapter Highlights

- Students' attitude towards online peer feedback can predict successful uptake of peer feedback within the context of argumentative essay writing.
- Perceived usefulness and motivation of peer feedback are the two main variables that could predict students' success in uptake of peer feedback in argumentative essay writing.
- Positive attitude towards peer feedback increases the likelihood of providing feedback and also implementation of the received feedback.
- Successful peer feedback uptake is related to how students perceive the received feedback.

## Introduction

The role of peer feedback as an effective instructional strategies for writing argumentative essays is reported frequently in the literature (Banihashem et al., 2022; Valero Haro et al., 2019; 2022; Noroozi, 2022; Noroozi et al., 2012). Providing effective peer feedback for students is challenging and students typically do not fully uptake feedback from peers (Panadero, 2016; Zhu & Carless, 2018). One challenge is related to students insufficient trust in peers' competence to offer quality and constructive feedback (Ghasemi et al., 2016; Kaufman & Schunn, 2011; Zhu & Carless, 2018). According to the literature, students' distrust in peers' feedback competence can be related to their attitudes toward peer feedback (Allen & Mills, 2016; Taghizadeh et al, 2022; Wu, 2021). Typically, students do not perceive peer feedback as useful as teacher feedback and they have shortend attitude towards peer feedback where they perceive received feedback from peers as no added value (Jiang & Yu, 2014).

Such attitude towards peer feedback can result in distrust in peers' feedback skills and subsequently ignoring the received feedback. In line with this, prior studies have revealed that students' perceptions of peer feedback have an impact on how well they do and how much they engage with feedback activities (Collimore et al., 2014). Positive attitude towards peer feedback increase the likelihood of providing feedback and also implementation of the received feedback, while negative attitude towards peer feedback can threaten students' active engagement with the peer feedback process and its uptake (Latifi et al., 2020, 2021a, 2021b; Latifi & Noroozi, 2021; Misiejuk et al., 2021; Noroozi et al., 2011; 2016; Taghizadeh et al., 2022). Therefore, students are less likely to apply recieved feedback in their work if they do not perceive peer feedback as a worthwhile activity and do not perceive their peers as qualified and trustworthy feedback providers (Noroozi & Mulder, 2017, Noroozi et al, 2018).

Despite the fact that there is evidence to support the role of attitude towards peer feedback in feedback performance (e.g., Alhomaidan, 2016; Kuyyogsuy, 2019), the impacts of students' attitude towards peer feedback on successful uptake of feedback have not been extensively studied in online learning environments, particularly in the context of argumentative essay writing where critical feedback plays a key role in improvements of argumentation performance in essay writing. Little is known about the relationship between students' attitude towards peer feedback and how well they use peer feedback when they write

argumentative essays in online classes (Alhomaïdan, 2016; Kuyyogsuy, 2019). Thus, this study was conducted to further explore and address this issue by answering the following research question: To what extent does students' attitude towards online peer feedback predict successful uptake of peer feedback in argumentative essay writing?

## Method

### *Participants*

This study was conducted in five-course at Wageningen University and Research (WUR) in the 2020–2021 academic year. In total, 330 students took part in this study, however, only 284 finished the module. Of this, 32% of participants were male (N=195) and 68% of participants were female (N=89). To comply with ethical standards, participants were made aware of the research setup of the module and their consent was received. Participants were made sure that personal information will be confidential. Additionally, this study received ethical approval from the Social Sciences Ethics Committee of the host university.

### *Procedure*

A module called “*Argumentative Essay Writing*” was created and integrated into the selected online courses at Brightspace. Students were invited to follow this module in three weeks. Students were requested to prepare an argumentative essay on one of the three given controversial topics (week one). Students' original essays were considered as the pre-test. In week two, students were asked to provide feedback on two argumentative essays written by their peers in week two using the platform's embedded criteria. Students were then required to revise their essays (week three). Students' revised essays were considered as the post-test.

### *Measurements*

#### *Quality of Students' Argumentative Essay*

The quality of students' argumentative essays was evaluated using a coding scheme developed by Noroozi et al. (2016). The following eight components, which were used in the development of this coding scheme, are typical of high-quality argumentative essay writing (e.g., Noroozi et al., 2016; Toulmin, 2003): introduction on the topic; taking a position on the topic; arguments for the position; justifications for the position; arguments against the

position; justifications for the position; response to counter-arguments; and conclusion and implications. Each element of the coding scheme is given a score between zero and three (three being the highest quality level). The total points by each student for these components were summed to determine student's overall grade for the argumentative essay's writing. The first and the revised draft of each student's essay were evaluated separately. The inter-rater reliability between the coders (Cohen's kappa coefficient) was reliable (Kappa = 0.70).

#### *Quality of Students' Received Peer Feedback*

Based on a review of relevant previous studies, the authors developed a coding scheme to evaluate the quality of students' feedback (e.g., Nelson & Schunn, 2009; Patchan et al., 2016; Wu & Schunn, 2020). The three components of peer feedback—*affective, cognitive, constructive*—are coded. These coding scheme features were given scores ranging from zero (poor quality) to two (good quality). The total number of points represented the students' overall grade for the quality of the peer feedback. Since each student received two sets of feedback, the overall score for the quality of the peer feedback received was determined by averaging the two sets of feedback. The same two coders participated in the coding process for peer feedback analysis, and Cohen's kappa coefficient results for inter-rater reliability among coders were found to be significant (Kappa = 0.60).

#### *Students' Attitude towards Online Peer Feedback*

The authors developed a 19-item questionnaire to evaluate students' attitude towards online peer feedback. Each question on this questionnaire has a Likert scale with five possible outcomes ranging from strongly disagree (1), to strongly agree (5). The perceived usefulness of peer feedback, perceived motivation of peer feedback, perceived trustworthiness of peer feedback, and perceived fairness of peer feedback are the four components of this questionnaire. All four components had strong reliability coefficients (Cronbach = 0.82, 0.80, 0.76, and 0.84).

#### *Analysis*

We controlled the impacts of students' education levels and course focus on the correlation between the continuous dependent variables and the independent grouping variable. Students'

success in the uptake of peer feedback was measured via their improvements in essay writing from pre-test to post-test. We divided the students into three groups using a percentile rank measurement: successful students (those whose progress in argumentative essay writing from pre-test to post-test was higher than the 67th percentile; N = 105, 39%); less successful students (those whose progress was between 33rd and 67th percentile; N = 62, 22%); and unsuccessful students (those whose progress was below the 33rd percentile). Based on students' attitude towards peer feedback, multinomial logistic regression was used to predict students' success in argumentative essay writing.

## Results

*To what extent does students' attitude towards online peer feedback predict successful uptake of peer feedback in argumentative essay writing?*

The results showed that students' uptake of feedback and improvements in argumentative essay writing can be predicted by their attitude towards peer feedback ( $\chi^2 = 15.97, p < 0.05$ ). The perceived usefulness and perceived motivation of peer feedback were the main predictors of students' success in online argumentative essay writing (see Table 1).

Table 1. Multinomial Logistic Regression the Essay Writing Improvement and Students' Attitude towards Peer Feedback

Improvement categories	Students' attitude towards peer feedback	B	SE	Exp (B)	95 % CI for Exp (B)	
					Lower bound	Upper bound
Less successful	Perceived usefulness of peer feedback	0.55	0.40	1.73	0.78	3.82
	Perceived motivation of peer feedback	-0.20	0.37	0.81	0.39	1.69
	Perceived trustworthiness of peer feedback	0.09	0.51	1.10	0.39	3.04
	Perceived fairness of peer feedback	-0.15	0.44	0.86	0.36	2.03
Course	Course A	0.91	0.70	2.48	0.62	9.93
	Course B	-19.09	0.01	5.08E-9	5.08E-9	5.08E-9



Improvement categories	Students' attitude towards peer feedback	B	SE	Exp (B)	95 % CI for Exp (B)		
					Lower bound	Upper bound	
Successful	Course C	0.20	0.62	1.22	0.35	4.17	
	Course D	0.08	0.53	1.08	0.38	3.11	
	Educational level	0.05	0.25	0.62	0.26	1.54	
	Perceived usefulness of peer feedback	0.70	0.35	2.02*	1.04	4.05	
	Perceived motivation of peer feedback	-0.72	0.33	0.48*	0.25	0.92	
	Perceived trustworthiness of peer feedback	0.18	0.44	1.20	0.50	2.89	
	Perceived fairness of peer feedback	-0.00	0.38	0.99	0.46	2.11	
	Course	Course A	0.88	0.61	2.41	0.72	8.06
		Course B	-19.26	0.00	4.31E-9	4.31E-9	4.31E-9
		Course C	-0.22	0.54	0.80	0.27	2.31
Course D		-0.24	0.45	0.78	0.32	1.88	
	Educational level	0.05	0.21	0.56	0.62	1.58	

Note: Model  $\chi^2 = 15.97$ ;  $P < 0.05$ ,  $-2 \log \text{likelihood} = 380.29$ , Pearson  $\chi^2 = 364.31$ ,  $p > 0.05$ ; Deviance  $\chi^2 = 377.51$ ,  $p > 0.05$ ; Pseudo  $R^2$  (Cox and Snell = 0.08, Nagelkerke = 0.09, McFadden = 0.04). Improvement categories: dependent variable; Peer feedback features: independent variable. The reference category is: unsuccessful

### Conclusion

Our findings revealed that students' attitude towards online peer feedback influence their willingness to implement feedback in their revised essay. Successful uptake of peer feedback in the context of argumentative essay writing was mainly predicted by whether students perceived peer feedback as a useful feedback and whether they enjoyed and became motivated by the received feedback. This indicates that students are willing to incorporate feedback if they perceived them useful or if they found it enjoyable and motivating. This result is consistent with the results reported by Misiejuk et al. (2020) and Mulder et al. (2014).

## Recommendations

Our findings extend our understanding regarding the relationship between students' attitude towards peer feedback and their feedback implementation. We found that the success in peer feedback uptake is related to how students perceive the received feedback. This suggests teachers should work not only on training students to give quality peer feedback but also should encourage students to have a positive attitude towards peer feedback.

## Acknowledgment

This research was funded by the SURF organization and Wageningen University and Research, the Netherlands with the funding number: 2100.9613.00. OCW. This fund was awarded to Omid Noroozi. The authors also would like to thank the teachers and students who dedicated their time to participate in this research.

## References

- Alhomaidan, A. M. A. (2016). ESL Writing Students Attitudes towards Peer Feedback Activities. *International Journal of Research and Review*, 3(3), 74–88
- Allen, D., & Mills, A. (2016). The impact of second language proficiency in dyadic peer feedback. *Language Teaching Research*, 20(4), 498–513. <https://doi.org/10.1177/1362168814561902>
- Banihashem, S. K., Noroozi, O., van Ginkel, S., Macfadyen, L. P., & Biemans, H. J. (2022). A systematic review of the role of learning analytics in enhancing feedback practices in higher education. *Educational Research Review*, 100489. <https://doi.org/10.1016/j.edurev.2022.100489>
- Banihashem, S. K., Aliabadi, K., Pourroostaei Ardakani, S., Nili AhmadAbadi, M. R., & Delavar, A. (2019). Investigation on the role of learning theory in learning analytics. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, 10(4), 14-27. <https://dx.doi.org/10.30476/ijvlms.2019.84294.1001>
- Carless, D., Salter, D., Yang, M., & Lam, J. (2011). Developing sustainable feedback practices. *Studies in Higher Education*, 36(4), 395–407. <https://doi.org/10.1080/03075071003642449>

- Collimore, L. M., Paré, D. E., & Joordens, S. (2014). SWDYT: So What Do You Think? Canadian students' attitudes about peerScholar, an online peer-assessment tool. *Learning Environments Research*, 18(1), 33–45. <https://doi.org/10.1007/S10984-014-9170-1>
- Ghasemi, M., Mehraji, N., Banihashem, S. K., & Badali, M. (2016). The effect of integration of Merrill's first principles of instruction with team based learning on the achievement of recall and application of nursing students. *Journal of nursing education*, 5(1), 62-71. <http://jne.ir/article-1-612-en.html>
- Harks, B., Rakoczy, K., Hattie, J., Besser, M., & Klieme, E. (2014). The effects of feedback on achievement, interest and self-evaluation: The role of feedback's perceived usefulness. *Educational Psychology*, 34(3), 269–290. <https://doi.org/10.1080/01443410.2013.785384>
- Jiang, J., & Yu, Y. (2014). The Effectiveness of Internet-based Peer Feedback Training on Chinese EFL College Students' Writing Proficiency. *International Journal of Information and Communication Technology Education*, 10(3), 34–46. <https://doi.org/10.4018/IJICTE.2014070103>
- Kuyyogsuy, S. (2019). Students' Attitudes Toward Peer Feedback: Paving a Way for Students' English Writing Improvement. *English Language Teaching*, 12(7), 107. <https://doi.org/10.5539/elt.v12n7p107>
- Latifi, S., & Noroozi, O. (2021). Supporting argumentative essay writing through an online supported peer-review script. *Innovations in Education and Teaching International*, 58(5), 501–511. <https://doi.org/10.1080/14703297.2021.1961097>
- Latifi, S., Noroozi, O., Hatami, J., & Biemans, H. J. (2021a). How does online peer feedback improve argumentative essay writing and learning? *Innovations in Education and Teaching International*, 58(2), 195-206. <https://doi.org/10.1080/14703297.2019.1687005>
- Latifi, S., Noroozi, O., & Talaei, E. (2020). Worked example or scripting? Fostering students' online argumentative peer feedback, essay writing and learning. *Interactive Learning Environments*, 1–15. <https://doi.org/10.1080/10494820.2020.1799032>
- Latifi, S., Noroozi, O., & Talaei, E. (2021b). Peer feedback or peer feedforward? Enhancing students' argumentative peer learning processes and outcomes. *British Journal of Educational Technology*, 52(2), 768–784. <https://doi.org/10.1111/BJET.13054>

- Misiejuk, K., Wasson, B., & Egelandstad, K. (2021). Using learning analytics to understand student perceptions of peer feedback. *Computers in Human Behavior*, 117. <https://doi.org/10.1016/j.chb.2020.106658>
- Mulder, R., Baik, C., Naylor, R., & Pearce, J. (2014). How does student peer review influence perceptions, engagement and academic outcomes? A case study. *Assessment & Evaluation in Higher Education*, 39(6), 657-677. <https://doi.org/10.1080/02602938.2013.860421>
- Nelson, M. M., & Schunn, C. D. (2009). The nature of feedback: How different types of peer feedback affect writing performance. *Instructional Science*, 37(4), 375–401. <https://doi.org/10.1007/s11251-008-9053-x>
- Noroozi, O., Biemans, H. J. A., Busstra, M. C., Mulder, M., & Chizari, M. (2011). Differences in learning processes between successful and less successful students in computer-supported collaborative learning in the field of human nutrition and health. *Computers in Human Behavior*, 27(1), 309–318. <https://doi.org/10.1016/j.chb.2010.08.009>
- Noroozi, O., Biemans, H., & Mulder, M. (2016). Relations between scripted online peer feedback processes and quality of written argumentative essay. *Internet and Higher Education*, 31, 20–31. <https://doi.org/10.1016/j.iheduc.2016.05.002>
- Noroozi, O., Banihashem, S. K., Taghizadeh Kerman, N., Parvaneh Akhteh Khaneh, M., Babayi, M., Ashrafi, H., & Biemans, H. J. (2022). Gender differences in students' argumentative essay writing, peer review performance and uptake in online learning environments. *Interactive Learning Environments*, 1-15. <https://doi.org/10.1080/10494820.2022.2034887>
- Noroozi, O. (2022). The role of students' epistemic beliefs for their argumentation performance in higher education. *Innovations in Education and Teaching International*.1-12. <https://doi.org/10.1080/14703297.2022.2092188>
- Noroozi, O. (2018). Considering students' epistemic beliefs to facilitate their argumentative discourse and attitudinal change with a digital dialogue game. *Innovations in Education and Teaching International*, 55(3), 357-365. <https://doi.org/10.1080/14703297.2016.1208112>
- Noroozi, O., McAlister, S., & Mulder, M. (2016). Impacts of a digital dialogue game and epistemic beliefs on argumentative discourse and willingness to argue. *The International Review of Research in Open and Distributed Learning*, 17(3). <http://dx.doi.org/10.19173/irrodl.v17i3.2297>

- Noroozi, O., Weinberger, A., Biemans, H.J.A., Mulder, M., & Chizari, M. (2012). Argumentation-based computer supported collaborative learning (ABCSCCL). A systematic review and synthesis of fifteen years of research. *Educational Research Review*, 7(2), 79-106. <http://dx.doi.org/10.1016/j.edurev.2011.11.006>
- Patchan, M. M., Schunn, C. D., & Correnti, R. J. (2016). The nature of feedback: How peer feedback features affect students' implementation rate and quality of revisions. *Journal of Educational Psychology*, 108(8), 1098–1120. <https://doi.org/10.1037/edu0000103>
- Shahali Zadeh, M., Dehghani, S., Banihashem, S. K., & Rahimi, A. (2016). Designing and implementation of blending of problem solving instructional model with constructivism's principles and the study of its effect on learning and creative thinking. *Journal of Innovation and Creativity in Human Science*, 5(3), 83-117. [https://journal.bpj.ir/article\\_522444.html?lang=en](https://journal.bpj.ir/article_522444.html?lang=en)
- Taghizadeh Kerman, N., Noroozi, O., Banihashem, S. K., Karami, M., & Biemans, H. J. A. (2022). Online peer feedback patterns of success and failure in argumentative essay writing. *Interactive Learning Environments*, 1–13. <https://doi.org/10.1080/10494820.2022.2093914>
- Taghizadeh Kerman, N., Noroozi, O., Banihashem, S. K., & Biemans, H. J. A. (2022). The effects of students' perceived usefulness and trustworthiness of peer feedback on learning satisfaction in online learning environments. 8th International Conference on Higher Education Advances (HEAd'22), Universitat Politècnica de València. <http://dx.doi.org/10.4995/HEAd22.2022.14445>
- Wu, Y., & Schunn, C. D. (2020). When peers agree, do students listen? The central role of feedback quality and feedback frequency in determining uptake of feedback. *Contemporary Educational Psychology*, 62, 101897. <https://doi.org/10.1016/j.cedpsych.2020.101897>
- Wu, Y., & Schunn, C. D. (2021). From plans to actions: A process model for why feedback features influence feedback implementation. *Instructional Science*, 49(3), 365–394. <https://doi.org/10.1007/S11251-021-09546-5>
- Valero Haro, A., Noroozi, O., Biemans, H.J.A., & Mulder, M. (2019). The effects of an online learning environment with worked examples and peer feedback on students' argumentative essay writing and domain-specific knowledge acquisition in the field of biotechnology. *Journal of Biological Education*, 53(4), 390-398. <https://doi.org/10.1080/00219266.2018.1472132>

- Valero Haro, A, Noroozi, O., Biemans, H. J. A., & Mulder, M. (2022). Argumentation Competence: Students' argumentation knowledge, behavior and attitude and their relationships with domain-specific knowledge acquisition. *Journal of Constructivist Psychology*, 35(1), 123-145. <https://doi.org/10.1080/10720537.2020.1734995>
- Zhu, Q., & Carless, D. (2018). Dialogue within peer feedback processes: clarification and negotiation of meaning. *Higher Education Research and Development*, 37(4), 883–897. <https://doi.org/10.1080/07294360.2018.1446417>
- 

#### Author Information

---

**Nafiseh Taghizadeh Kerman**

 <https://orcid.org/0000-0003-0046-0077>

Ferdowsi University of Mashhad

Iran

**Seyyed Kazem Banihashem**

 <https://orcid.org/0000-0002-9978-3783>

The Open University of the Netherlands &

Wageningen University and Research

The Netherlands

**Omid Noroozi**

 <https://orcid.org/0000-0002-0622-289X>

Wageningen University and Research

The Netherlands

Contact email: *omid.noroozi@wur.nl*

---

#### Citation

Taghizadeh Kerman, N., Banihashem, S. K., & Noroozi, O. (2022). The Role of Students' Attitude towards Online Peer Feedback in Successful Uptake of Feedback in Argumentative Essay Writing. In S. El Takach & O. T. Ozturk (Eds.), *Studies on Social and Education Sciences 2022* (pp. 264-274). ISTES Organization.