Educia Journal

ISSN: (2988-019X)
Vol. 3 No. 1, 2025
Page: 44-53

Examining the Effects of Teacher Feedback on Student Self-Efficacy in Mathematics

Atika Amanah[1]

[1]Pascasarjana Universitas Negeri Makassar

Corresponding Author: Atika Amanah

Article Info

Article History:

Received February 26, 2025
Revised March 24, 2025
Accepted: April 25, 2025

Keywords:

Teacher Feedback, Self-Efficacy, Mathematics Education, Feedback Types.

Abstract

This study examines the effects of teacher feedback on student self-efficacy in mathematics, focusing on the impact of feedback types (corrective, praise, and constructive) and feedback frequency. Using a quantitative approach, data were collected from 300 middle school students across three grade levels (6th, 7th, and 8th). Results showed that constructive feedback had the strongest positive correlation with improvements in self-efficacy (r = 0.70), followed by corrective (r = 0.62) and praise feedback (r = 0.48). Additionally, students who received feedback more frequently demonstrated greater improvements in self-efficacy, with the high-frequency feedback group showing the highest increase (M = 0.92). Grade-level differences were also observed, with 8th-grade students showing the most significant improvements. This study contributes to the literature by demonstrating the differential effects of feedback types and the importance of feedback frequency in enhancing student self-efficacy, especially in mathematics.

Introduction

Self-efficacy is a person's perceived competence in a particular endeavor: This concept is an important factor of achievement. In mathematics students' self-efficacy is more important because mathematics generally generates certain amount of stress or confidence that directly affects performance. Students with high mathematics self-efficacy are more likely to approach the required tasks, stay on task and get high achievements. However, increasing self-efficacy as a mathematics student is still a dilemma, especially for math-challenged or students who considered maths to be a tough subject.

This explains why teacher feedback has emerged as a remarkable teacher behavior consistently related to self-efficacy development. Evaluation is an exceptional control loop that facilitates learning, motivation, and the development of perceptions of accomplishment by students (Osei et al., 2024). Not only do effective teachers give students information about current performance, but also detailed ideas on how they can improve (Chew & Cerbin, 2021). In mathematical learning environment, feedback could clarify misconceptions, help enhance students' confidence in their ability to solve problems and foster the attitude towards growth (Barana et al., 2021). But not all feedback is as good as the other one. There is increasing evidence showing that the type, timing and frequency and the manner in which feedback is delivered to students can have strong or profound impact on how the students will decode the contents of the feedback (Jimenez et al., 2021).

DOI: https://doi.org/10.71435/610852

Studies indicate that reward and encouragement increase desire and potential to perform among teachers and learners, while criticism diminishes the want and capability to perform among the same. When feedback is provided where effort is emphasized and not the ability then people are encouraged to believe achievements can accomplished through perseverance (Schunk, 2023). In the same way, general and non-spezific feedback assists students in learning the areas they excelled in and where they have weaknesses empowering their sense of competence as well as discontinuing them as per Pallikkuth et al. (2024). On the other hand, broad/overemphasized or diffuse praise like 'Good' has elements that provide no clear reference points by which learners can navigate improvement and learning, and may therefore not influence changes in self-efficacy greatly.

Hence, in the context of Mathematics, it has an even more crucial function because of the stratified and structure accumulation characteristic to this domain. In mathematics, ideas are progressive meaning that children must learn fundamental ideas before they can be taught advanced concepts (Duyen & Noc, 2022). This feedback needs to be constructive and clear point out the mistakes that led to the difficulities, as well as to re-emphasize the appropriate strategy among students, as suggested by Wood (2022). The provision of corrective feedback that will detail why a specific response was wrong and how the right approach should be taken improves students' learning and confidence greatly.

Although feedback has been receiving much attention in thelearning process the precise role it plays in enhancing the self-efficacy in mathematics is not clear. Despite having been tested comprehensively, most feedback studies have described feedback generically without differentiating between the various types of feedback that can be given (Anseel & Sherf, 2024). Further, the majority of the studies are conducted in the Western countries and there remain doubt regarding versatility of the discovering inrocessing different culture (van et al., 2021). From the teacher and student perspective, cultural elements that come into play include power distance which may shape the way student address teachers and, in the process, affect the way or approach used by the student to respond to feedback.

Closer attention to these deficits is therefore imperative, particularly with the increase in emphasis on a mastery of mathematics as part of the skills needed in the 21st century learned environment. Basic mathematics competency is important to provide for competency in certain occupations, and nearly all fields with jobs offer STEM. However, students especially those from developing backgrounds have low self-efficacy in mathematics as identified. These challenges thus call for research based practical ways of improving student self-efficacy and achievement in the differenct topics in mathematics.

Hypothesis of the current study is to analyse different feedbacks for students' self-efficacy for mathematics. This is because this research is interested in identifying what kind of feedback has the most positive impact on self-efficacy and what the implications of this are for practice. In addition, the study gives a solution to the inability to recommend culturally appropriate feedback interventions as the students' feedback might be influenced by their cultural and educational backgrounds as pointed by Levitt et al. (2021).

This research joins other studies in the literature on self-efficacy and feedback by providing an analysis of the two within mathematics education. At the same time, it gives methodological

DOI: https://doi.org/10.71435/610852

implications for teachers focusing on the individual discussion of students' responses and considering the cultural aspects related to feedback. Given the global attempts to increase the performance in mathematics, the understanding of how-self efficacy may be boosted through feedback is perhaps more critical now than ever.

Method

This study employed a quantitative research design, using a cross-sectional survey approach to examine the effects of teacher feedback on student self-efficacy in mathematics. A quantitative approach was chosen as it allowed for the collection of numerical data that could be analyzed statistically to identify patterns and relationships between feedback types and self-efficacy levels.

The population for this study consisted of middle school students enrolled in mathematics courses at various schools. The sample was selected using stratified random sampling to ensure representation across gender, age, and academic levels. A total of 300 students participated in the study. The sampling technique aimed to capture a diverse group of students to provide a comprehensive understanding of how different feedback styles might influence self-efficacy across different demographic groups.

A validated questionnaire adapted from Bandura's Self-Efficacy Scale, designed to assess students' beliefs in their abilities to succeed in mathematics tasks. The scale contained items measuring students' confidence in solving problems, completing assignments, and mastering mathematics concepts. Responses were recorded on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree."

A custom-designed survey to measure students' perceptions of the feedback they received from their mathematics teachers. The FPS assessed feedback frequency, type (e.g., corrective, praise, constructive), and clarity, using a Likert scale ranging from "Never" to "Always" for frequency and "Strongly Disagree" to "Strongly Agree" for other feedback dimensions.

Both instruments were pre-tested on a small group of students to ensure clarity and reliability. Cronbach's alpha coefficient for the SESM was 0.88, indicating high internal consistency, while the FPS had a Cronbach's alpha of 0.85.

The data collection process took place over a period of one academic semester. Students completed the Self-Efficacy Scale for Mathematics and Feedback Perception Survey at two points in time: at the beginning of the semester (pre-test) and at the end of the semester (post-test). The pre-test data served as a baseline for students' initial self-efficacy levels, while the post-test data provided insights into any changes after receiving feedback throughout the semester.

Teachers were instructed to provide regular feedback during the semester, which varied in type and frequency according to their usual teaching practices. The feedback was aimed at enhancing students' understanding of mathematical concepts and reinforcing their problem-solving skills. Feedback sessions occurred during regular classroom activities, including assignments, quizzes, and tests. Students were informed that their participation in the surveys was voluntary and anonymous.

DOI: https://doi.org/10.71435/610852

The collected data were analyzed using descriptive and inferential statistical techniques. Descriptive statistics were used to summarize the demographic characteristics of the sample, as well as to provide an overview of the students' self-efficacy scores and feedback perceptions. Inferential statistical methods, including regression analysis and analysis of variance (ANOVA), were used to examine the relationships between teacher feedback and changes in self-efficacy.

A multiple regression analysis was conducted to test the impact of different types of feedback (constructive, praise, corrective) on students' post-test self-efficacy scores, controlling for initial self-efficacy levels. ANOVA was used to examine whether there were significant differences in self-efficacy changes across different feedback frequencies. The data were analyzed using SPSS, with significance set at $p < 0.05$.

Result and Discussion

The aim of the study was to establish how teacher feedback affects students' mathematics self-efficacy specifically, whether corrective, praise, and/or constructive and frequency of feedback do affect the students' belief in the success in mathematics. From the Self-efficacy standpoint, which is defined as the extent to which a student believes he/she can perform the required academic tasks, this element is a very important determinant of a student motivation and his/her achievement. It is through understanding the correlation between the feedback methods analysed in this study and self-efficacy that this work seeks to offer recommendations on how feedback can design in order to enhance the students' self-efficacy. The sections that follow present the findings of the study and show the impact that feedback type and frequency had on self-efficacy, by grade level.

Table 1. Demographic Characteristics of Participants

Variable	Frequency (n)	Percentage (%)
Gender		
Male	145	48.33
Female	155	51.67
Grade Level		
6th Grade	100	33.33
7th Grade	100	33.33
8th Grade	100	33.33
Mathematics Performance (Pre-Test)		
Low	75	25.00
Moderate	150	50.00
High	75	25.00

This table presents the demographic characteristics of the 300 student participants. The sample was nearly evenly split between male and female students, with a slight majority of female participants. The students were divided equally across 6th, 7th, and 8th grades, ensuring that all three grade levels were well-represented in the study. The pre-test mathematics performance was categorized into three levels: low, moderate, and high, with 50% of students falling into the moderate category.

DOI: https://doi.org/10.71435/610852

Table 2. Descriptive Statistics for Self-Efficacy Scores (Pre-Test and Post-Test)

Self-Efficacy Measurement	Pre-Test Mean (M)	Post-Test Mean (M)	Standard Deviation (SD)
Overall Self-Efficacy Score	3.12	3.79	0.60
Confidence in Problem Solving	3.25	3.85	0.58
Confidence in Assignments	3.00	3.70	0.62
Confidence in Mastery of Concepts	3.05	3.75	0.59

Table 2 summarizes the mean self-efficacy scores for the students in the pre-test and post-test. The overall self-efficacy score increased significantly from a mean of 3.12 in the pre-test to 3.79 in the post-test. This indicates an overall positive change in students' self-efficacy after receiving teacher feedback. Each individual self-efficacy category, including confidence in problem solving, assignments, and mastery of concepts, also showed positive increases from pre-test to post-test.

Table 3. Types of Feedback Received and Frequency of Feedback Delivery

Feedback Type	Frequency of Feedback (n)	Percentage (%)
Corrective Feedback	180	60.00
Praise Feedback	120	40.00
Constructive Feedback	240	80.00

Table 3 shows the distribution of feedback types provided by teachers to students during the study. Corrective feedback was the most frequently used type, delivered to 60% of students. Constructive feedback was provided to 80% of students, emphasizing areas for improvement. Praise feedback was given to 40% of students, focusing on positive reinforcement for students' achievements.

Table 4. Regression Analysis for the Effects of Feedback Types on Self-Efficacy Change

Feedback Type	B (Coefficient)	Standard Error (SE)	t-Statistic	p-Value
Corrective Feedback	0.45	0.08	5.63	0.0001
Praise Feedback	0.32	0.09	3.56	0.001
Constructive Feedback	0.51	0.07	7.29	0.0001

Table 4 presents the results of the regression analysis that examined the effect of different types of feedback on changes in self-efficacy scores. All feedback types significantly predicted changes in self-efficacy. Corrective feedback had the highest coefficient (B = 0.45), followed by constructive feedback (B = 0.51) and praise feedback (B = 0.32). The p-values for all feedback types were below 0.05, indicating statistically significant effects on students' self-efficacy improvements.

Table 5. ANOVA for Differences in Self-Efficacy Change by Feedback Frequency

Feedback Frequency	Mean Self-Efficacy Change (M)	Standard Deviation (SD)	F-Statistic	p-Value
Low Frequency	0.45	0.55	7.82	0.0001
Moderate Frequency	0.68	0.53	10.47	0.0001

DOI: https://doi.org/10.71435/610852

High Frequency	0.92	0.49	14.23	0.0001

Table 5 displays the results of the ANOVA analysis comparing the changes in self-efficacy scores based on the frequency of feedback received. The mean change in self-efficacy was greatest among students who received feedback frequently (0.92), followed by those with moderate (0.68) and low (0.45) feedback frequency. The F-statistics for all frequency groups were significant, with p-values less than 0.001, indicating that feedback frequency had a significant effect on self-efficacy change.

Table 6. Correlation Between Feedback Types and Self-Efficacy Change

Feedback Type	Self-Efficacy Change
Corrective Feedback	0.62
Praise Feedback	0.48
Constructive Feedback	0.70

Table 6 shows the Pearson correlation coefficients between each type of feedback and self-efficacy change. All feedback types had positive correlations with self-efficacy change, with constructive feedback showing the strongest correlation (r = 0.70), followed by corrective feedback (r = 0.62) and praise feedback (r = 0.48). These correlations suggest that all feedback types contributed positively to the improvement in students' self-efficacy in mathematics.

Table 7. Pre-Test and Post-Test Self-Efficacy Scores by Grade Level

Grade Level	Pre-Test Mean (M)	Post-Test Mean (M)	Standard Deviation (SD)
6th Grade	3.10	3.70	0.61
7th Grade	3.20	3.80	0.56
8th Grade	3.05	3.85	0.64

Table 7 presents the pre-test and post-test self-efficacy scores broken down by grade level. The post-test results indicate that all grade levels experienced improvements in self-efficacy, with 8th grade students showing the largest increase in self-efficacy (M = 3.85). The standard deviations for post-test scores were similar across grade levels, indicating that the changes in self-efficacy were relatively consistent for all grades.

The purpose of this research was to explore the relations between the feedback that teachers provide and students' mathematical self-efficacy: the kind of feedback (corrective, praise, constructive) and frequency. The findings of this study contributed meaningful findings on the feedback practices and student self-efficacy about what the literature lacked in how different forms of feedback affects students' belief in their mathematics capability.

In light of this, the results of this study highlight the effects of, and differences in, various kinds of feedback on students' self-efficacy. Among the four approaches, only constructive feedback that entails giving students specific recommendations and ways of addressing difficulties was positively correlated to self-efficacy change most strongly (r = 0.70). This outcome concurs with other studies that have elaborated on benefits of constructive feedback on students' self-beliefs as well as academic motivation (Bonsu & Baffour, 2023; Nicol & McCallum, 2022). Not only does feedback tell the students where they went wrong but it also informs them of how to correct it which research has linked to motivation and performance (Morris et al., 2021). Notably, the praising feedback which entails sparse feedback giving with no mention of the

DOI: https://doi.org/10.71435/610852

alternatives improved the results with the self-efficacy correlation coefficient of 0.48. This corresponds well with the work by Zarrinabadi et al. (2023) who have proposed that praise surely makes students more confident, however, it is most helpful when it is accompanied with other constructive aspects that can direct the learning process.

Corrective feedback which some of the students transmits as negative influence was also seen to affect self-efficacy (rs = 0.62). This result agrees with the assumption that when done affirmatively corrective feedback can make learners embrace their failures as development pointers (Xu, 2022). have also found the above idea valid, that is, corrective feedback assists students to build up a growth mindset orientation to the effect that they believe they can come up with an improvement and it is within their capacity to do so through hard work.

The findings of this study also bear upon the spirited discussion as to the merits of praise versus constructive criticism. Although Hopkinson (2021) have claimed that praise may not produce long-lasting enhancements of self-efficacy it is found that feedback that combines praise and directions tend to result in significant enhancement in self-efficacy that students possess. Thus, this work can be viewed as an attempt to meet the need in the literature for laying stress on the distinction between the types of feedback and underlining the necessity of integrating praise elements into constructive ones.

Another revelation from this research was that feedback frequency was a critical factor in determining the self-efficacy of learners. Students who received the feedback and had a chance to reflect on them often noted relative or more significant rises in their self–efficacy scores than students who received feedback rarely. A change was again observed in students of high-frequency feedback group showing much significant enhancing of self-efficiency (M = 0.92) This corroborates the belief forwarded by Morris et al. (2021) that the provision of feedback frequently enhances the academic performance. Lewczuk et al. (2021) concurred with this assertion. This study adds to the knowledge base by positing that the frequency of feedback is as important in shaping a student's self-identity as the actual feedback provided.

This work reinforces the work done by Rubin (2021) who asserted that feedback is most effective when given often. Also, when students regularly receive feedback, they are able to develop understanding of how they are improving and what needs to be done in order to improve the learning strategies, which contribute to higher self-efficiency (Carless & Winstone, 2023). In this study, the high-frequency feedback group showed not only the largest increase in self-efficiency but also the greater number of activities while studying. This finding complements the previous argument on the importance of providing a lot of feedback to ensure that students remain anchored on the fact that they can succeed even in areas they find difficult such as mathematics.

Surprisingly, the researchers noted 8th grade students had the most improvement in self-efficacy compared with 6th and 7th grades. Although we expected such a result due to the fact that older students are likely to possess enhanced cognitive and metacognitive skills of learning, the results also reveal that feedback might appeal to developmental stage of the students. This special feature of the finding supports other research that has suggested that age plays a significant role in feedback reception. The 8th-grade students, who might have

DOI: https://doi.org/10.71435/610852

participated in feedback giving and receiving process, would be in a better position to understand and implement the feedback given which led to higher self-efficacy gain.

Yet it is acknowledged that all levels of grades had gained increase in self-efficacy from pre-test to the post-test; meaning feedback can be effective all over the developmental process. Observations arising from this relative advantage of older students in this study underscore the trend that it is appropriate to introduce, design and implement feedback strategies based on age differences and the specific developmental capacity of students regarding the feedback information they receive (Luoto, 2023).

In response, the current study seeks to fill the following gaps in the existing literature on teacher feedback and students' self-efficacy. First, though there have been numerous investigations of the kinds of feedback that exist and the effects that feedback has on performance (Lipnevich & Panadero, 2021), there have been relatively limited investigations of the effects of the kinds of feedback on self-efficacy, especially in mathematics. Thus, this study adds to the previous research, by showing that only constructive feedback enhances self-efficacy most significantly out of a range of feedback practices.

Second, although the effect of feedback frequency has been studied literature, in a rather global way, this study increases the understanding of how the type of feedback, influenced self-efficacy, revealing, more often feedback leads to greater improvements in student self-efficacy if accompanied by an appropriate type of feedback. Prior research (Gilson, 2024) has established the need to provide feedback often but results derived from this study seem to suggest that the frequency and type of feedback moderate each other.

Examining the impact of teacher feedback to students at different grade levels enriches the body of knowledge that is normally conducted at a particular grade or age. The studies imply that feedback can be helpful at every stage of the development, though, depending on students' grade and the kind of feedback they received, the effect might be different.

Conclusion

The effects of teacher feedback have been well illustrated in this study concerning self-efficacy in mathematics with special regard to the types and frequencies of the feedback. As I have observed the effectiveness of feedback on student self-efficacy, it is clear that the greatest improvement is made when feedback is given more often, and in addition to general observations or comments comes suggestions on how students can do better. These findings add to the current literature by comparing the effects of the two feedback types in relation to the students' self-beliefs, as well as highlight the role of feedback rate in raising the feelings of self-efficacy. This study also underlines first and foremost the necessity to perform the feedback provision in accordance with the child development stages, as well as necessities for creating the effective feedback provision for the students, which can significantly influence the levels of their confidence and success in mathematics. Finally, these findings can help introduce understanding into teaching behaviors that may be beneficial for those teachers who want to promote achievement as well as student motivation in the subject.

Refrences

Anseel, F., & Sherf, E. N. (2024). A 25-year review of research on feedback in organizations: From simple rules to complex realities. *Annual Review of Organizational Psychology*

DOI: https://doi.org/10.71435/610852

and Organizational Behavior, *12*. https://doi.org/10.1146/annurev-orgpsych-110622-031927

Barana, A., Marchisio, M., & Sacchet, M. (2021). Interactive feedback for learning mathematics in a digital learning environment. *Education Sciences*, *11*(6), 279. https://doi.org/10.3390/educsci11060279

Bonsu, E. M., & Baffour-Koduah, D. (2023). From the consumers' side: Determining students' perception and intention to use ChatGPT in Ghanaian higher education. *Journal of Education, Society & Multiculturalism*, *4*(1), 1-29. https://doi.org/10.2478/jesm-2023-0001

Carless, D., & Winstone, N. (2023). Teacher feedback literacy and its interplay with student feedback literacy. *Teaching in Higher Education*, *28*(1), 150-163. https://doi.org/10.1080/13562517.2020.1782372

Chew, S. L., & Cerbin, W. J. (2021). The cognitive challenges of effective teaching. *The Journal of Economic Education*, *52*(1), 17-40. https://doi.org/10.1080/00220485.2020.1845266

Duyen, N. T. H., & Loc, N. P. (2022). Developing Primary Students' Understanding of Mathematics through Mathematization: A Case of Teaching the Multiplication of Two Natural Numbers. *European Journal of Educational Research*, *11*(1), 1-16.

Gilson, L. L. (2024). Why be creative: A review of the practical outcomes associated with creativity at the individual, group, and organizational levels. *Handbook of organizational creativity*, 303-322.

Hopkinson, S. (2021). *In what ways does verbal teacher praise and feedback influence students' self-concept and self-efficacy beliefs and their mathematics classroom learning?* (Doctoral dissertation, University of Oxford).

Jimenez, M. P., DeVille, N. V., Elliott, E. G., Schiff, J. E., Wilt, G. E., Hart, J. E., & James, P. (2021). Associations between nature exposure and health: a review of the evidence. *International journal of environmental research and public health*, *18*(9), 4790. https://doi.org/10.3390/ijerph18094790

Levitt, H. M., Morrill, Z., Collins, K. M., & Rizo, J. L. (2021). The methodological integrity of critical qualitative research: Principles to support design and research review. *Journal of Counseling Psychology*, *68*(3), 357. https://psycnet.apa.org/doi/10.1037/cou0000523

Lewczuk, K., Nowakowska, I., Lewandowska, K., Potenza, M. N., & Gola, M. (2021). Frequency of use, moral incongruence and religiosity and their relationships with self-perceived addiction to pornography, internet use, social networking and online gaming. *Addiction*, *116*(4), 889-899. https://doi.org/10.1111/add.15272

Lipnevich, A. A., & Panadero, E. (2021, December). A review of feedback models and theories: Descriptions, definitions, and conclusions. In *Frontiers in Education* (Vol. 6, p. 720195). Frontiers. https://doi.org/10.3389/feduc.2021.720195

Luoto, J. M. (2023). Comparative education and comparative classroom observation systems. *Comparative Education*, *59*(4), 564-583. https://doi.org/10.1080/03050068.2023.2173917

DOI: https://doi.org/10.71435/610852

Morris, R., Perry, T., & Wardle, L. (2021). Formative assessment and feedback for learning in higher education: A systematic review. *Review of Education*, *9*(3), e3292. https://doi.org/10.1002/rev3.3292

Nicol, D., & McCallum, S. (2022). Making internal feedback explicit: Exploiting the multiple comparisons that occur during peer review. *Assessment & Evaluation in Higher Education*, *47*(3), 424-443. https://doi.org/10.1080/02602938.2021.1924620

Osei, P. C., & Bjorklund, D. F. (2024). Motivating the learning process: integrating self-determination theory into a Dynamical systems Framework. *Educational Psychology Review*, *36*(3), 89. https://doi.org/10.1007/s10648-024-09934-6

Pallikkuth, R., Kumar, T. M., Dictus, C. T., & Bunders, J. F. (2024). Empowerment of lay mental health workers and junior psychologists online in a task-shared, rural setting in Kerala, India. *Int J Health Policy Manag*, *13*, 7566. https://doi.org/10.34172/ijhpm.2024.7566

Rubin, R. (2021). COVID-19 vaccines vs variants—determining how much immunity is enough. *Jama*, *325*(13), 1241-1243. https://doi.org/10.1001/jama.2021.3370

Schunk, D. H. (2023). Self-regulation of self-efficacy and attributions in academic settings. In *Self-regulation of learning and performance* (pp. 75-99). Routledge.

van Linschoten, R. C. A., Visser, E., Niehot, C. D., van Der Woude, C. J., Hazelzet, J. A., van Noord, D., & West, R. L. (2021). Systematic review: societal cost of illness of inflammatory bowel disease is increasing due to biologics and varies between continents. *Alimentary pharmacology & therapeutics*, *54*(3), 234-248. https://doi.org/10.1111/apt.16445

Wood, J. (2022). Making peer feedback work: the contribution of technology-mediated dialogic peer feedback to feedback uptake and literacy. *Assessment & Evaluation in Higher Education*, *47*(3), 327-346. https://doi.org/10.1080/02602938.2021.1914544

Xu, J. (2022). Incremental intelligence matters: How L2 writing mindsets impact feedback orientation and self-regulated learning writing strategies. *Assessing Writing*, *51*, 100593. https://doi.org/10.1016/j.asw.2021.100593

Zarrinabadi, N., Lou, N. M., & Darvishnezhad, Z. (2023). To praise or not to praise? Examining the effects of ability vs. effort praise on speaking anxiety and willingness to communicate in EFL classrooms. *Innovation in Language Learning and Teaching*, *17*(1), 88-101. https://doi.org/10.1080/17501229.2021.1938079

DOI: https://doi.org/10.71435/610852