

Implementation of Assessment and Feedback in Higher Education

Shamira Elsayed^{1*}, Define Cakir²

¹ Faculty of Education, Mansoura University, Elgomhouria St., Mansoura City 35516, Egypt

² Faculty of Education, Bolu Abant Izzet Baysal University, Golkoy Yerleskesi 14030 – Merkez, Bolu, Turkiye

*Correspondence: shamirasmz@gmail.com

SUBMITTED: 1 December 2022; REVISED: 5 January 2023; ACCEPTED: 8 January 2023

ABSTRACT: The ability of feedback to improve students' performance on a task, their techniques, and their learning has long been recognized in the literature. The primary goal of feedback is to reduce errors, close knowledge and skill gaps, and improve knowledge and skill acquisition. However, a student must use feedback to reach his or her full potential. Therefore, much of the recent feedback research has focused on examining student perceptions of feedback and how they relate to the effective use of feedback. This review provides a comprehensive overview of the literature on feedback perception. Inadequate theoretical frameworks, repetition (but not replication) of research, and methodological flaws in the articles reviewed have led to rather unsatisfactory conclusions. This type of feedback often does nothing to improve student learning experiences. It is time for professors to rethink the practice of commenting. They should move away from conventional methods of providing feedback to students. This study describes some contemporary methods of feedback that can ultimately help students improve their learning experiences. This can also contribute to the professionalization of teachers in higher education. Based on the findings, we propose a framework for further research on students' perceptions of feedback and many future directions for this topic.

KEYWORDS: Feedback; assessment; higher education; perception

1. Introduction

Feedback is vital to the learning process in all situations. Whether provided formally or informally, timely, detailed feedback assists individuals in learning more effectively by providing a clear knowledge of where they stand and what they need to do to improve. In the context of higher education, feedback assists students in mastering their specializations and developing broader graduate traits. It helps pupils understand what is expected of them and how to attain the appropriate standard. Providing great feedback is one of the most important things you can do to help your students learn [1, 2]. Grades and written comments are intended to have both formative and summative functions: grades, although summative, also have a formative role because they result from evaluating students' work against standards and they affect students' attention to further improvement in feedback; feedback, in addition to its formative function, serves to justify grades and maintain standards. Effective formative

feedback correlates directly to increased student learning [2,3]. Due to contextual limitations and theoretical deficiencies, feedback has become less effective. Contextually, there are limitations such as the diverse writing backgrounds of students, the diverse discourses of various disciplines, the insufficient assessment knowledge of staff, the modular form of programs, institutional requirements, and policies that prioritize achievement measurement over learning improvement [3, 4]. In the broadly designed modular patterns of higher education courses, students frequently do not receive evaluation feedback until after the conclusion of a module, and this information may not be applicable to succeeding modules. Theoretically, it has been suggested that the conventional teacher-centered assessment model is incompatible with the present student-centered pedagogy, in which students should participate actively in assessment activities [3, 5]. New assessment models have been introduced with an emphasis on the incorporation of feedback into ongoing student–teacher dialogues and the effect of feedback on developing self-regulation of learning among students. Nevertheless, linguists have generally analyzed these theories in terms of the contrasting functions of formative and summative evaluation. In postsecondary education, educators have studied the overemphasis on summative assessment. However, teachers of various disciplines have received little guidance on how to achieve the dual goals of evaluation and feedback. Assessment feedback on written work from modularly structured courses in the disciplines has not been established as a separate field of study [6, 7]. The assessment and feedback lifecycle is shown in Figure 1. This study investigated the perspectives of university students regarding the effectiveness and utility of assessment feedback, the divergent styles of assessment feedback of lecturers and tutors in various disciplines, teachers' divergent interpretations of assessment criteria and confusion regarding the dual roles of assessment feedback, and teachers' divergent beliefs and practices. The review examines and compares the study methodology and conclusions of the investigations. It identifies a study area for assessment input and explains the implications for future research.

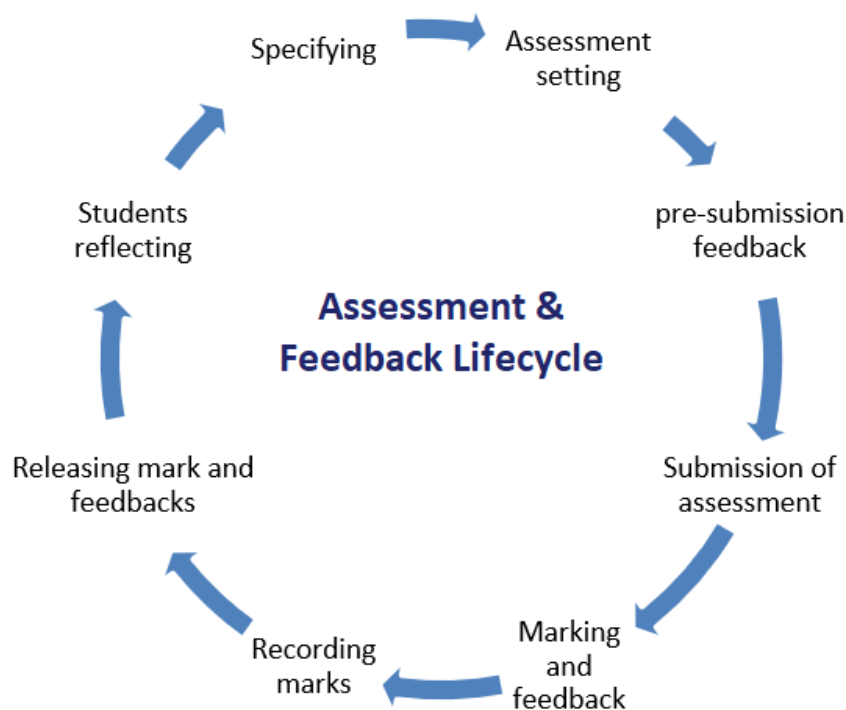


Figure 1. The assessment and feedback lifecycle.

2. Definition and aim of feedback

Feedback is information offered by a teacher, parent, self, classmate, book, or experience in response to a performance and desired by teachers, students, peers, etc. Previous research has described it as part of the knowledge that a person acquires in order to achieve a particular goal. As a fundamental aspect of all learning, feedback is essential to the process of acquiring new information. Feedback is not always considered in isolation, but sometimes in the context of assessment. Assessment and feedback are difficult to distinguish from each other. The main goal of feedback is to reduce errors, close knowledge and skill gaps, and improve the acquisition of knowledge and skills [8, 9]. Feedback has been found to be one of the most powerful ways to significantly influence learning outcomes. Any type of feedback (written, oral, graded, or assessed) can influence learning. Feedback is an essential part of teaching and learning because it indicates whether or not something has been learned. Learning can be enhanced by providing feedback with appropriate frequency. Feedback is an essential and effective component of instructional design and an excellent technique for improving performance. However, feedback alone cannot lead to positive results if the individuals involved are not motivated [9, 10].

Over the last century, the meanings of feedback in educational settings have shifted dramatically. Early formulations of a behaviorist paradigm viewed feedback as a message of reinforcement that served as the essential link between stimuli and appropriate responses. It was considered that students played a passive role and that the benefits of providing feedback could be anticipated [4, 5, 10]. In the 1970s, the information processing approach of feedback gained favor. Feedback was viewed as information that learners could use to correct errors, with the understanding that students have a say in how they use feedback material [9, 11]. This definition was developed in an educational context, and their conceptualizations position the student as a vital participant in the feedback procedure. In other words, for feedback to impact student learning, the learner must actively use the feedback information to make decisions and take appropriate action. However, even among feedback conceptualizations that recognize the student's critical role, the extent to which the student takes an active role in the feedback process varies. Some scholars have interpreted this to mean that students must be trained on how to improve and take corrective action, a very linear and procedural approach to feedback. Others have argued that feedback comprises dialogic processes through which learners understand information from different sources and use it to better their work or learning practices. Feedback is any information regarding a performance that can be utilized by learners to improve their performance or learning [11, 12]. This notion of feedback is congruent with widely accepted definitions. Feedback may originate from instructors, classmates, or the work itself; it may also be generated by a machine or the student. It may include information regarding where the learner is, where the learner is going, or what actions and techniques must be done to reach the desired destination. This concept relates to both the immediate and specific effects of feedback as well as its more general and long-lasting effects. The emphasis is placed on the need for a student to use feedback to improve his or her performance on a task, tactics, or learning. The focus of a considerable amount of recent feedback research [13, 14] has been on examining student perceptions of feedback and their relationships with effective feedback usage. The aim of feedback for the learner is summarized in Figure 2.



Figure 2. The aim of feedback for learner.

3. Effectiveness of feedback for student

Feedback can be either effective or ineffective, but it is more likely to be effective when there is a strong commitment to the intended goal. Effective feedback is contingent on elements such as motivation. Feedback is a vital tool for promoting learning. Negative feedback can influence both learning and performance. A conceptual framework for feedback was offered in a study, and it was discovered that informative feedback influences intrinsic and extrinsic motivation and accomplishment [14, 15]. Employee attitudes, such as satisfaction, engagement level, and intent to leave a company, improved as a result of feedback that led to improved leadership behavior. The necessity of sharing and receiving feedback was stressed by both instructors and students. According to the authors, feedback benefits both teachers and students in acquiring new concepts and skills, as well as preventing incorrect repetition. Few studies, such as the meta-analysis that demonstrated that around one-third of studies indicated that feedback is not always beneficial, have determined that feedback has little or no effect on performance. In this study, feedback is conceptualized in terms of assessment. The narrative analysis will emphasize the significance of assessment feedback in education [12, 16–17]. This research contributes to the current literature on assessment feedback by underscoring the crucial role it plays in promoting teaching and learning in the field of education. Educators (school administrators, leaders, and teachers) and students whose goal is to increase teaching and learning for school effectiveness are the intended audience for this article.

Reviewing the relevant studies revealed the following themes: Initial research on student opinions of the usefulness and efficacy of feedback revealed a variety of perspectives on the subject. Second, research on instructors' assessment feedback methods revealed a variety of assessment feedback methodologies and a general dearth of data on learning development. Thirdly, examinations of the viewpoints of instructors have indicated divergent interpretations of evaluation criteria and ambiguity surrounding the twin tasks of assessment and feedback.

Comparing the attitudes and behaviors of teachers revealed a disparity between the intended purpose of assessment feedback for learning development and its actual use to justify grading. [15, 18]. Furthermore, comparisons of student and instructor perspectives revealed that disagreements were primarily focused on the functions and efficacy of evaluation feedback. Finally, innovative assessment feedback options, such as providing first-year students with written comments through individual tutorials, were investigated. Overall, the difficulties associated with evaluation feedback illustrated its dual character. This review discussed study themes, followed by conclusions, a proposed paradigm for the study of assessment feedback, and future research implications [15, 19, 20].

According to a prior study, three unique types of positive feedback were studied. An early study investigated the utility of exemplars in student-centered assessment in higher education institutions. Twenty-two first-year environment and biology majors enrolled in a module. The assignment demanded a poster display. Students were required to establish evaluation criteria, which professors then addressed. Students revised their own work based on posters provided by their lecturers as examples of prior students' work. In addition to self and peer evaluation, the final entries were reviewed by peers. In addition, students were requested to answer a survey regarding the efficacy of this evaluation approach. The conclusion of the study demonstrated that using examples to assist students in completing a task is helpful. Model responses, a type of feedback comparable to exemplars, were similarly advantageous for getting higher grades [20, 21]. The results of a previous survey suggested that students preferred personal remarks to model answers as feedback, although they sought both types of input; nonetheless, the examination results revealed that model answers led to higher grades than personal comments. According to the research, feedback should include both model responses and individual remarks. The effectiveness of employing a cover page on which students indicate the aspects for which they wish to receive feedback A British university gathered data via interviews with nine first-year students and a focus group of professors. The conclusion of the study was that interactive cover sheets could facilitate communication between students and instructors and encourage students to assume responsibility for evaluation comments. Previous research has demonstrated the effectiveness of grading sheets, examples, and feedback [21–23]. Students preferred exemplars over grading sheets because exemplars provided specific examples of the required standards against which their own work could be compared; they also believed that a combination of focused personal comments, explanations, and standards references was effective. comparable to the results of a small-scale survey on exemplars among students of a single course taught by a team of tutors from several disciplines. Online examples annotated with comments as feedback were deemed successful by students primarily because they provided students with precise information on organization and layout prior to writing the assignment and because they stimulated discussion between tutors and students. These studies appeared to contradict the conclusion of the review that the type, style, and pattern of feedback have no influence on student learning. Effective feedback facilitates learning by referring to goals and tactics, indicates the assessor's engagement with the assessed written work in order to deliver a fair review, recognizes accomplishments and efforts, and is compassionate while remarking on unfavorable elements. According to the findings of this study, effective feedback should be able to encourage the growth of learning as well as be encouraging and objective. Students preferred timely, customized, criterion-

referenced, positive, and explicit feedback that not only acknowledged their accomplishments but also contributed to their development [19, 20, 23].

4. Feedback Perceptions

Students' engagement with feedback includes their perception, interpretation, and practical application of input. Readiness-to-engage is a mentality before receiving feedback that is impacted by performance expectations and previous feedback experiences, while active engagement includes both visible and unseen thoughts and behaviors after receiving feedback. A preliminary understanding of what must be in place for students to successfully engage with feedback to enhance their learning must at least include the following elements: The willingness to pay attention to it, noticing feedback, comprehending input (or requesting explanation), and evaluating the value of feedback are all necessary components. Students readily describe the qualities of assessment feedback that they value and do not value, and their perceptions are not significantly influenced by a variety of personal, academic, and affective variables [24, 25]. In other words, elements contributing to the perceived efficacy of comments were consistent regardless of student background or attitude differences. The comments that were most strongly associated with an individual's sense of their overall achievement were developmental, encouraging, and fair. Others have shared the same sentiments. Feedback must be provided frequently and in sufficient detail for it to be truly formative; it should focus on students' performance; be timely for students to use it to improve their learning; be relevant to the objectives the evaluation is intended to achieve; pertain to students' understanding of what is expected of them; and be received by the due date.

Although it is not always possible for academic staff to control the last factor (although it can be encouraged through nested assessment and elaboration), the other factors are applicable to both large and small group instruction. There is a conflict between the demands placed on formative feedback and student motivation. While it is important for students to feel that they can make mistakes and learn from them during the formative phase of a topic, according to research, students are primarily motivated by their end results. Students work strategically, and if a piece of work is not appreciated, they are not willing to finish it. Finally, it is important that students are adequately prepared for criticism. Data show that students have difficulty interpreting feedback or interpret it differently than instructors [15, 17, 26]. The effectiveness of formative assessment depends on how students receive and uses feedback. This can be as simple as confirming that students' expectations about the purpose of the feedback and the task match your own (i.e., the type of skills or knowledge you are assessing). Using previously assessed tasks, sample responses, and examples of good and poor work to demonstrate the use of feedback is also beneficial because students can see how the criteria were applied to the examples and how the feedback was used to improve the quality of subsequent tasks. Grades have been shown to improve significantly when sample responses are provided to students compared to providing only individual comments [27–29].

4. Conclusions

The research emphasizes the enhancement of the higher education feedback procedure. It shifts the emphasis substantially away from obsolete feedback delivery models in favor of modern, efficient, and more valued alternatives. Feedback is a crucial skill for lecturers in higher education and has a substantial impact on the quality of the students' learning process. This

study's objective is to promote the widespread adoption of various feedback mechanisms as essential learning tools in higher education by offering guidance. Clearly, teachers should reassess the feedback procedure in order to improve student learning. This paper's objective was to present some essential principles of effective feedback practices that can address a broad spectrum, including the cognitive, behavioral, and motivational dimensions of reflection.

Acknowledgments

The authors thank Universidad de los Andes Colombia and Universidade de Santiago de Compostela Spain for facilitating this study.

Competing Interest

All authors declare no competing interest.

Reference

- [1] Zou, J.; Zhang, S. (2022). Using Student Feedback to Analyze the Characteristics of Presence in Classroom Settings Based on the Community of Inquiry Framework. *Sustainability*, 14, 6103. <https://doi.org/10.3390/su14106103>.
- [2] Barana, A.; Marchisio, M.; Sacchet, M. (2021). Interactive Feedback for Learning Mathematics in a Digital Learning Environment. *Education Sciences*, 11, 279. <https://doi.org/10.3390/educsci11060279>.
- [3] Tractenberg, R.E. (2021). The Assessment Evaluation Rubric: Promoting Learning and Learner-Centered Teaching through Assessment in Face-to-Face or Distanced Higher Education. *Education Sciences*, 11, 441. <https://doi.org/10.3390/educsci11080441>.
- [4] Makipaa, T.; Hilden, R. (2021). What Kind of Feedback is Perceived as Encouraging by Finnish General Upper Secondary School Students? *Education Sciences*, 11, 12. <https://doi.org/10.3390/educsci11010012>.
- [5] Hussain, S.; Gamage, K.A.A.; Ahmad, W.; Imran, M.A. (2019). Assessment and Feedback for Large Classes in Transnational Engineering Education: Student-Staff Partnership-Based Innovative Approach. *Education Sciences*, 9, 221. <https://doi.org/10.3390/educsci9030221>.
- [6] Saeed, N.; Mohamedali, F. (2022). A Study to Evaluate Students' Performance, Engagement, and Progression in Higher Education Based on Feedforward Teaching Approach. *Education Sciences*, 12, 56. <https://doi.org/10.3390/educsci12010056>.
- [7] Sudakova, N.E.; Savina, T.N.; Masalimova, A.R.; Mikhaylovsky, M.N.; Karandeeva, L.G.; Zhdanov, S.P. (2022). Online Formative Assessment in Higher Education: Bibliometric Analysis. *Education Sciences*, 12, 209. <https://doi.org/10.3390/educsci12030209>.
- [8] Nelson, N.R.; Carlson, R.B.; Corbett, A.H.; Williams, D.M.; Rhoney, D.H. (2021). Feedback for Learning in Pharmacy Education: A Scoping Review. *Pharmacy*, 9, 91. <https://doi.org/10.3390/pharmacy9020091>.
- [9] Cheah, S.; Li, S. (2020). Effect of Structured Feedback on Performance: the Role of Attitude and Perceived Usefulness. *Sustainability*, 12, 2101. <https://doi.org/10.3390/su12052101>.
- [10] Haughney, K.; Wakeman, S.; Hart, L. (2020). Quality of Feedback in Higher Education: A Review of Literature. *Education Sciences*, 10, 60. <https://doi.org/10.3390/educsci10030060>.
- [11] Wang, X.; Zhang, L.; He, T. (2022). Learning Performance Prediction-Based Personalized Feedback in Online Learning via Machine Learning. *Sustainability*, 14, 7654. <https://doi.org/10.3390/su14137654>.
- [12] Haughney, K.; Wakeman, S.; Hart, L. (2020). Quality of Feedback in Higher Education: A Review of Literature. *Education Sciences*, 10, 60. <https://doi.org/10.3390/educsci10030060>.
- [13] Malik, M.A.; Mahroof, A.; Ashraf, M.A. (2021). Online University Students' Perceptions on the Awareness of, Reasons for, and Solutions to Plagiarism in Higher Education: The Development of

- the AS&P Model to Combat Plagiarism. *Applied Sciences*, 11, 12055. <https://doi.org/10.3390/app112412055>.
- [14] Mäkipää, T.; Hildén, R. (2021). What Kind of Feedback is Perceived as Encouraging by Finnish General Upper Secondary School Students? *Education Sciences*, 11, 12. <https://doi.org/10.3390/educsci11010012>.
- [15] Coelho, V.; Scott, A.; Bilgic, E.; Keuhl, A.; Sibbald, M. (2022). Understanding Feedback for Learners in Interprofessional Settings: A Scoping Review. *International Journal of Environmental Research and Public Health*, 19, 10732. <https://doi.org/10.3390/ijerph191710732>.
- [16] Zhou, Y.; Shao, W.D.; Wang, L. Effects of Feedback on Students' Motor Skill Learning in Physical Education: A Systematic Review. *International Journal of Environmental Research and Public Health*, 18, 6281. <https://doi.org/10.3390/ijerph18126281>.
- [17] Kuo, J.-Y.; Lin, H.-C.; Wang, P.-F.; Nie, Z.-G. (2022). A Feedback System Supporting Students Approaching a High-Level Programming Course. *Applied Sciences*, 12, 7064. <https://doi.org/10.3390/app12147064>.
- [18] Pais-Roldán, P.; del Carmen Olmos-Gómez, M.; Cuevas-Rincón, J.M.; Luque-Suárez, M. (2022). Study on the Attitudes and Knowledge of Teachers and Future Teachers about Immediate Health Care Measures at School. *European Journal of Investigation in Health, Psychology and Education*, 12, 854-869. <https://doi.org/10.3390/ejihpe12070062>.
- [19] Wu, X.M.; Dixon, H.R.; Zhang, L.J. (2021). Sustainable Development of Students' Learning Capabilities: The Case of University Students' Attitudes towards Teachers, Peers, and Themselves as Oral Feedback Sources in Learning English. *Sustainability*, 13, 5211. <https://doi.org/10.3390/su13095211>.
- [20] Saeed, N.; Mohamedali, F. (2022). A Study to Evaluate Students' Performance, Engagement, and Progression in Higher Education Based on Feedforward Teaching Approach. *Education Sciences*, 12, 56. <https://doi.org/10.3390/educsci12010056>.
- [21] Lipnevich A.A.; Panadero, E. (2021) A Review of Feedback Models and Theories: Descriptions, Definitions, and Conclusions. *Frontiers in Education*, 6, 720195. <https://doi.org/10.3389/feduc.2021.720195>.
- [22] Gnepp, J.; Klayman, J.; Williamson, I.O.; Barlas, S. (2020). The future of feedback: Motivating performance improvement through future-focused feedback. *PLoS One*, 19, e0234444. <https://doi.org/10.1371/journal.pone.0234444>.
- [23] Panadero, E.; Lipnevich, A.A. (2022). A review of feedback models and typologies: Towards an integrative model of feedback elements, *Educational Research Review*, 35, 100416. <https://doi.org/10.1016/j.edurev.2021.100416>.
- [24] Guo, W.; Chen, Y.; Lei, J.; Wen, Y. (2014). The Effects of Facilitating Feedback on Online Learners' Cognitive Engagement: Evidence from the Asynchronous Online Discussion. *Education Sciences*, 4, 193-208. <https://doi.org/10.3390/educsci4020193>.
- [25] Tsiakas, K.; Abujelala, M.; Makedon, F. (2018). Task Engagement as Personalization Feedback for Socially-Assistive Robots and Cognitive Training. *Technologies*, 6, 49. <https://doi.org/10.3390/technologies6020049>.
- [26] Clack, A.; Dommett, E.J. (2021). Student Learning Approaches: Beyond Assessment Type to Feedback and Student Choice. *Education Sciences*, 11, 468. <https://doi.org/10.3390/educsci11090468>.
- [27] Sánchez-Cabrero, R.; Casado-Pérez, J.; Arigita-García, A.; Zubiaurre-Ibáñez, E.; Gil-Pareja, D.; Sánchez-Rico, A. (2021). E-Assessment in E-Learning Degrees: Comparison vs. Face-to-Face Assessment through Perceived Stress and Academic Performance in a Longitudinal Study. *Applied Sciences*, 11, 7664. <https://doi.org/10.3390/app11167664>.
- [28] Pozdeeva, E.; Shipunova, O.; Popova, N.; Evseev, V.; Evseeva, L.; Romanenko, I.; Mureyko, L. (2021). Assessment of Online Environment and Digital Footprint Functions in Higher Education Analytics. *Education Sciences*, 11, 256. <https://doi.org/10.3390/educsci11060256>.

- [29] Mendoza, W.; Ramírez, G.M.; González, C.; Moreira, F. (2022). Assessment of Curriculum Design by Learning Outcomes (LO). *Education Sciences*, 12, 541. <https://doi.org/10.3390/educsci12080541>.



© 2023 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).