

## Leveraging Learners' Agency for Enhancing the Process of Feedback

By Jingyi Xu and Tina Grotzer  
Next Level Lab, Harvard Graduate School of Education

Feedback is an essential component of the learning experience. It is typically defined as the information that is given to learners about their performance and the next steps that they can take in learning. Conventional notions of feedback consider it to be a process that teachers initiate with information that they prescribe to learners. A wealth of research provides advice for teachers about how to give effective feedback to students.<sup>1</sup> In contrast, research has provided little support to learners for how to actively pursue feedback or how to interact with the feedback process to engage in their best learning. A passive role for engaging with feedback is inconsistent with emerging pedagogies that provide for a central and active role of learners. As educators, we can reconsider the role of the learner in relation to feedback. Recentering our pedagogical focus on learners calls for helping them to engage in the feedback process in ways that maximize benefits to their learning.

Next Level Learning introduces a view of learners as having “Contextualized Agency.” This means that they act upon their social, emotional, and physical environments, modifying them to best support their learning. *Just as fish create vortices in water to push off from to swim their fastest, “fast fish learners” modify learning contexts to support their best learning.* In this framing, feedback is a dynamic process, rather than discrete pieces of information, that involves learners seeking, responding to, acting on, and reciprocally benefiting from the information that they receive on their work. Learners are viewed as active processors, rather than passive recipients of the information. Learners’ cognitive, emotional, and interpersonal capacities are essential to the interactions within the feedback process.

In this article, we look at the research findings on feedback, what is known about the most beneficial forms of feedback, and types of interactions that support learners in getting the most from feedback. We apply the research findings to how “fast fish learners” engage with feedback, make the best use of feedback, and how their teachers can help them in doing so.

### **What does research say about how to make feedback most effective?**

#### ***1. The most effective form of feedback offers information about the nature of the tasks that learners are engaged in and processes that can be helpful.***

Research suggests that effective feedback provides information about the nature of the task and the processes related to it, such as how to recognize the important features of a task, possible ways to carry out a task, or how to recognize possible pitfalls in following through on a task. For example, for a math problem that can be solved in multiple ways, the teacher can help students to compare the different approaches that they have taken and engage them in discussion about the most efficient solution with the least steps or the one that helps them to derive the correct answer most consistently. Feedback also works well when it can provide

learners with a preview of what might come next within a task. Teachers can be helpful by guiding students to think through the steps involved in a science experiment or to anticipate where their explorations in an art-making activity might lead. Such types of feedback make use of the feedforward control in the cognitive system, where contextual information provided in advance can flexibly regulate learning behaviors.

Feedback can be powerful by providing information that helps learners to understand where they are on the learning trajectory. Specifically, feedback enhances learning by prompting learners to reflect upon and work to reduce the gap between their current performance and their desired goals. In contrast, feedback focused on students themselves, such as “you are a rock star!” rather than the process or outcome, does not necessarily shed light on how to close the gap between current performance and one’s goals. It may boost learners’ confidence but does little to make a difference in performance. This is not to discourage teachers from offering positive comments in response to students’ achievement. However, it underscores the importance of providing information that can help students understand where they are on the learning trajectory and what to do next while praising their learning progress.

In addition, research shows that feedback is most effective when it moves learners from the task or process to the level of self-regulation.<sup>2</sup> That is, learners benefit from feedback the most when they can *proactively seek, monitor, and respond to feedback*. Ultimately, they need to be able to incorporate the routine into their learning strategies and accordingly regulate future behaviors. The level of self-regulation involves learners’ capacity to develop their own strategies of understanding and acting on the information that they receive. Therefore, teachers need to help students to understand what specific comments mean for their future actions. For instance, when teachers guide students in editing their compositions, teachers may also let the class know that grammar mistakes should be corrected because they can lead to misunderstanding and bad writing habits, but they do not stop anyone from becoming good writers.

## ***2. Learners should be active processors/managers of feedback.***

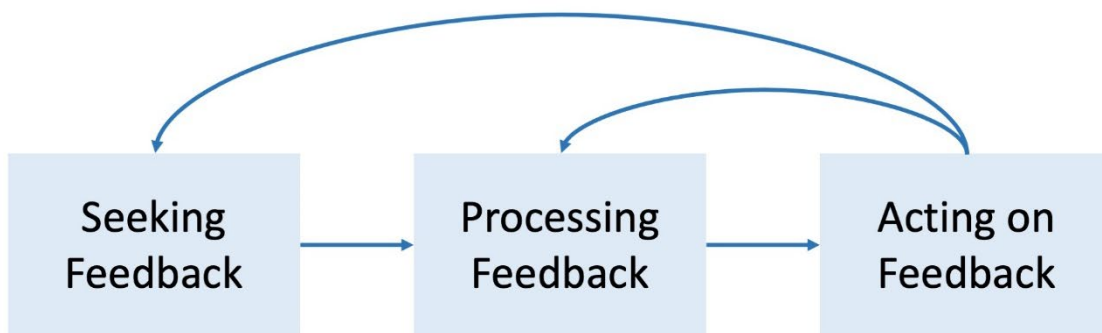
As discussed above, feedback maximizes its benefits for learners at the level of self-regulation, which involves learners coming up with strategies to monitor, regulate, and reflect on their learning process. Metacognition is a crucial source of these complex, self-regulatory learning behaviors that lead to the mastery of knowledge and skills. In the most recent article by the Next Level Lab, Grotzer and Cuzzolino discuss how metacognition enhances learning, why it is difficult to teach, and how to overcome the obstacles in teaching and learning metacognition. Essentially, metacognition refers to the process in which learners deliberately think about their own thinking.<sup>3</sup> In other words, learners not only need to understand the content that they are learning (i.e., cognition), but also are aware of how they approach the knowledge and skills (i.e., metacognition) through planning, monitoring, and evaluating.<sup>4</sup> For example, a student may develop better reading strategies by observing their own reading routine and deciding how they can use a specific strategy to address a problem in their reading.

For instance, the student might gradually learn that she can read more effectively if she scans the whole passage first and then dives into the details with the theme held in mind.

How does being metacognitive fit with being an active processor of feedback? By learning to be aware of areas of confusion or ways that they can improve their learning, students become more likely to seek out feedback. As discussed below, seeking feedback is an essential component of learner engagement with feedback. Teachers can support students in seeking feedback at relevant moments by encouraging them to attend to their levels of clarity, understanding, and strategy use. They can model that these are important junctures when feedback-seeking can be helpful. In other words, metacognition helps learners become equipped with the power to manage information about their own learning trajectory, including feedback. Therefore, learners can benefit more from being viewed as active processors, rather than passive recipients, of the information that they receive about their learning progress using their own metacognitive capacities and appropriate support. As feedback typically comes from external sources, such as parents, teachers, and peers, scaffolding is particularly important when learners try to internalize feedback into their self-regulatory learning. This shift in perspective leads educators to pay attention to the process that learners work with feedback.

### ***3. Utilizing feedback involves learners' seeking, responding to, and acting upon information about their work.***

**Figure 1**  
*Feedback is a Process*



As educators view learners as active processors, rather than passive recipients, of feedback to achieve self-regulatory learning, they need to understand how learners work with feedback as an integrated process to better support their learning trajectory.

#### **a) Seeking Feedback**

It is typically assumed that feedback is given to students by the teacher on their performance in a learning task. Learners tend to view feedback as an accessory, instead of a necessity, in their learning experience. As a result of failing to recognize the value of feedback, they may not actively seek feedback if they are not given any. However, provided the

importance of feedback in self-regulatory learning, it is a crucial source of learners' understanding of their current performance and desired goals. Therefore, learners need to appreciate feedback as a commitment to self-understanding and improvement, and to develop the awareness of looking for feedback even if they do not expect to directly receive anything. Then, learners also need to understand what kinds of feedback can effectively facilitate their learning and how to look for it. For instance, as discussed above, task- and process-based feedback that can provide learners with a preview of the context and next steps for closing the gap between current performance and their goals is the most effective. Learners can accordingly frame questions that target more effective ways to carry out a task or what to expect in the future when they look for feedback.

#### b) Processing Feedback

Once learners receive feedback, either actively sought or directly given, they can respond to the information on affective and cognitive levels. In other words, they process the information about their learning performance by understanding what the information means to themselves and their learning trajectory.

On the affective level, learners may exhibit various feelings and emotions about the feedback that they receive. Particularly, students are likely to have negative emotions about critical feedback, because they might take it as a negation of their ability. Students also tend to have defensive responses toward criticism because they may feel challenged to take new perspectives.<sup>5</sup> On the other hand, positive comments can boost their self-esteem, but they may overlook the need for further efforts. Hence, balanced emotional responses and a commitment to continuous improvement are necessary in engaging with any type of feedback. Students differ in their emotional responses to feedback on the individual level based on a variety of factors, such as self-efficacy, motivation, beliefs about errors and revisions in learning, and trust in different sources of feedback.<sup>6</sup> Therefore, appropriate dispositions and attitudes are critical to maintaining an emotional equilibrium while dealing with feedback.

Learners process feedback information on the cognitive level by understanding what the information tells them about their learning progress. Specifically, they need to understand the relevant criteria used to evaluate the quality of their work, pick up information that informs their learning progress and future actions, and selectively reject the others.<sup>7</sup> This process involves learners comparing their self-evaluation with the external feedback that they receive from others. They subsequently retain the information that is consistent with their own judgments.<sup>8</sup> Thus, an accurate understanding of the criteria and exemplars of a task can promote learners' sound judgments of feedback.

#### c) Acting on Feedback

Learners take action on the basis of their interpretations of the feedback that they receive and their ability to extract relevant actions from the information. Their capacity to act on the feedback also depends on their repertoires of knowledge and strategies to implement the action items. At the same time, they need to monitor their progress with regard to the evaluation criteria and suggestions. If they have difficulty understanding the feedback or

drawing any useful information from it, they may need to seek additional support. They may also re-examine the piece of information that they have received to adjust their interpretations and attitudes so that new messages can be derived. In realizing the ineffectiveness of the first round of feedback, they can better identify the type of information that they are looking for and accordingly adjust their feedback-seeking response strategies, which forms a reciprocal cycle of self-regulatory learning.

### **What can teachers do to enable students to proactively engage with feedback?**

Feedback is a process that may take great time and efforts to cultivate the necessary dispositions and strategies to take full advantage of it. Nevertheless, given its integral role in everyday teaching and learning, it is well worth the investment. Here are some simple moves suggested by the research that teachers can take to promote students' proactiveness and leverage the effects of feedback in their learning trajectory.

#### ***1. Have students practice asking effective questions when peers are reviewing their work.***

Peer feedback is a common instructional activity that enables students to learn from each other. Teachers typically directly assign students to review each other's work without specifying the need to seek feedback from peers. Therefore, students are likely to overlook the value of feedback and even regard it as a task. Teachers can prompt students to ask explicit questions when they seek feedback from their peers. In this way, students are more likely to view peer feedback activities as something interesting and interactional. The experiences of seeking feedback and being asked to provide feedback can also help students realize its value. Teachers can provide a few example questions at first, such as "based on my progress so far, what do you think my next steps should be?" or "can you walk through the essay with me and see if my logic is coherent?" so that students know what type of information they need to look for. If students need time to become familiar with the process, teachers can arrange a few quick practice rounds. As students get used to it, teachers can simply remind them of asking questions before giving each other feedback at the beginning of peer feedback activities.

#### ***2. Encourage students to highlight critical information and actionable items in written feedback.***

Written feedback is one of the most popular forms of feedback that students may receive, especially on essays and other written assignments. It is also helpful because it provides a record that students can refer to at any time. However, such benefits may not actualize if students cannot properly understand and identify the messages in the feedback. Teachers can guide students to highlight key information and action items using a few minutes after handing back exams or homework. As a result, students will have the opportunity to digest the feedback and figure out their next steps through close reading. The goal of this practice is to help students gradually build the routine of consciously attending to the information that informs their future actions.

***3. Monitor students' learning progress or revisions with them using the actionable items in the feedback that they receive.***

Now that students are able to identify the key information and action items in a piece of feedback, what's the next step? They need to make revisions or complete further learning tasks based on the suggestions received. In addition, to become self-regulatory learners, they need to monitor their learning progress. Students are likely to discard the piece of feedback after reading it once, as they might think that they have internalized everything in it. At this moment, the action items that they highlight may serve as a checklist that helps them understand where they are on the learning trajectory. Therefore, teachers can walk through students' revisions or additional assignments with them using the feedback. As with the point above, the goal is to help students assimilate this behavior into everyday learning.

***4. Remind students that feedback is an interactive and iterative process and that, like fast fish, they can push off the feedback that they receive to make it work best for them.***

Help students to realize that feedback is an interactive process and that they can ask questions about the feedback that they receive to help them to fully understand it and to decide what aspects of it will work for them to employ. They can ask questions about the intent behind the feedback and explore various ways to address what motivated it and then circle back to the giver of the feedback to discuss the progress of the work. Interacting around feedback and engaging in an iterative discussion instead of a one-off "giving" of feedback helps the learner to own the learning process while making the most of feedback.

**In Summary**

Feedback is a critical process in students' learning experience. It enhances their understanding of where they are and where they are heading through an external source of information. While efforts to help teachers provide effective feedback are common, it is important to note that feedback is only effective when students actually take in and act on it. Therefore, a shift in perspective to viewing students as active processors, rather than passive recipients, of feedback, and close attention to the process that they use to approach feedback, are necessary to leverage the power of feedback. This calls for the collective efforts of educators and researchers to realize the impact of feedback by finding ways to mobilize students' proactiveness in everyday teaching and learning.

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**Jingyi Xu** is a research assistant at the Next Level Lab at the Harvard Graduate School of Education (HGSE). She completed her master's study in Human Development and Education at HGSE in May 2022. Prior to HGSE, she studied Applied Psychology & Human Education and

Economics at Boston College. She is passionate about understanding how social and cultural factors shape individuals' cognitive and emotional processes in learning.

**Tina Grotzer** is a member of the faculty of education at the Harvard Graduate School of Education and a senior researcher at Project Zero. Tina directs the Causal Learning in a Complex World and Next Level Learning Research Labs where her research considers learning, performance, and expertise in a complex and uncertain world. She teaches courses in curriculum development and pedagogy.

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## About the Next Level Lab:

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