Improving Teaching and Learning in Philosophy Through Process-Oriented Feedback

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Abstract: In this article, I argue that process-oriented feedback is one of the most critical factors for effective teaching and learning in philosophy. Given that extensive research on pedagogical practices demonstrates that feedback is the single most powerful predictor of learning across subjects and tasks, we can justifiably infer that this also holds true in philosophy. Admittedly, teachers and students of philosophy routinely engage in certain types of feedback practices. The problem is that process-oriented feedback is usually absent or understood and applied through the lens of pedagogical strategies that weaken its effectiveness. One reason is that many philosophy teachers possess an insufficient understanding of feedback, its types, and its impact. By better understanding and incorporating feedback, especially process-oriented feedback, into philosophy, philosophy teachers and learners can improve the effectiveness of their learning and teaching practices.

Keywords: teaching philosophy, learning philosophy, feedback, learning strategies, scaffolding

Introduction

One leading assumption in contemporary educational practices is that lecturing is not a highly effective method for teaching and learning. Advocates of this view argue that lecturing promotes passive learning that may serve to acquire theoretical knowledge but is insufficient for developing complex skills (Finkel, 2000; Handelman et al.,, 2004; Mazur, 2009). In response, many instructors advocate for replacing lectures with active learning strategies, which place students at the center of the educational process (Hake, 1998; Pearlman, 2019; Stokes, 2012; Wieman, 2014). However, a substantial amount of research in cognitive psychology, the learning sciences, and related fields suggests that active learning does not fare much better than old-fashioned lecturing. Numerous studies show that active learning approaches like discovery learning, problem-based learning, and experiential learning are hardly more effective than lecturing and other conventional approaches (Kirschner et al., 2006; Moreno, 2004; Sweller et al., 1982). This suggests that, despite the current enthusiasm for active learning pedagogy, the dichotomy between passive and active learning is not a decisive factor in determining student learning success.

I am not suggesting that all active student-centered interventions are ineffective, though Approaches such as assigning short writing tasks (Weltman, 2024), Socratic questioning (Biondi, 2008), and fostering metacognition (Concepción, 2004) have demonstrated considerable success. Thus, some questions naturally emerge: why do some student-centered methods succeed while others fall short? Is lecturing truly less effective than active learning? The response I advocate for is the empirically-based view that the effectiveness of both active learning strategies and traditional lecturing often hinges on

more fundamental factors like receiving feedback, embracing challenges, and developing accurate models of the domain of learning. Among these factors, feedback stands out as a decisive predictor of successful learning. Regardless of whether the method is student-centered or teacher-centered, the type and quality of feedback provided to students play a pivotal role in determining learning outcomes.

The analysis of thousands of studies and many millions of students across disciplines reveals that feedback is the most critical factor in determining the success or failure of teaching and learning methods (Hattie, 2008). Moreover, process-oriented feedback is particularly effective—in contrast to, for instance, motivational feedback (Hattie & Timperley, 2007). It has consistently proved to be the most important type of feedback across disciplines (Balzer et al., 1989; Butler, 1987; Earley et al., 1990). Philosophy is unlikely to be an exception—particularly analytic philosophy, which emphasizes conceptual precision, rigorous argumentation, and serves as the focus of this discussion. Despite this, philosophy teachers often do not select pedagogical strategies based on their proven impact on learning. They typically develop their teaching skills through two primary sources: emulating their own teachers and learning through trial and error (Welch, 2024).[1]

Given that feedback, especially process-oriented feedback, has consistently proven to be the most effective tool for advancing learning and teaching across disciplines (Hattie, 2008; Hattie & Timperley, 2007), incorporating it into the philosophy classroom has the potential to significantly enhance both students' learning outcomes and teachers' pedagogical practices. Another implication is that process-oriented feedback is not only compatible with lecturing and active learning but also is a key driver of successful lectures and active learning activities. Feedback is not one more pedagogical strategy we can select from a set of numerous learning and teaching methods but a way to make those methods work.

In this article, I proceed as follows: In the first section, I define process-oriented feedback, its chief characteristics, and explain why it is more effective than other types of feedback. In the second section, I explain why we lack process-oriented feedback strategies in philosophy and how we can implement them in teaching and learning philosophy. After responding to some objections, I emphasize its role in the process of learning philosophy, starting from understanding concepts to constructing philosophical arguments, with a focus on the core activities of philosophy, such as reading, writing, discussing, and lecturing.

Process-Oriented Feedback is the Most Important Kind of Feedback

In this section, I argue that feedback is a critical factor for teaching and learning, no matter what the subject is, and that process-oriented feedback is the most crucial kind of feedback. Although other types of feedback are important, providing feedback on the process is fundamental for deeper learning and enhancing pedagogical effectiveness. I also examine the core attributes of process feedback: being specific, targeting challenging activities, being timely and sufficient. This discussion sets the stage for arguing later that process-oriented feedback is indispensable for improving teaching and learning practices in philosophy.

[1] As Welch (2024) observes, philosophers tend to "rely on hallway chats with [...] friends and colleagues. Few supplement their teaching practices by applying research-based techniques that include process-oriented feedback such as scaffolding (but see Coe, 2011; Colter, 2015, 2017; Marcus, 2019; Mulnix & Mulnix, 2010).

The Importance of Process-Oriented Feedback

But what is feedback? Over the last decades, scholars from various fields, including education, sociology, philosophy, and psychology, have offered numerous definitions. Despite the diversity of perspectives, most agree that feedback serves to clarify students' current level of knowledge and skill, identify the desired knowledge and skill goals, and bridge the gap between the two. Psychologists Nicol and Macfarlane-Dick (2007) define feedback as "information about how the students' present state (of learning and performance) relates to goals and standards" (p. 200). Hattie and Clarke (2018) describe it as "information about the task that fills a gap between what is understood and what is aimed to be understood" (p. 10).

The two attributes of feedback that stand out in these definitions are that feedback informs about students' current learning state and helps them improve their performance:

> **Feedback:** information about students' current learning state —relative to certain epistemic goals— and guidance on how to improve and thus achieve a more advanced epistemic state: better knowledge and skills in a given domain.

After analyzing data from over 50,000 studies involving millions of students on the most effective teaching methods, Hattie (2008) found that feedback accounts for over 80% of learning success. This effect is independent of the diverse pedagogical approaches that incorporate feedback, like lecturing and active learning. Assuming that other evident variables beyond teachers' and learners' immediate control, such as students' prior knowledge and allocated learning time, remain constant, feedback stands out as one of the most powerful—and potentially the most influential—factors in determining learning success.

The importance of feedback is indisputable. However, not all types of feedback are equally effective. Hattie and Timperley (2007) classified feedback relative to its target: the task or product, the process of completing the task, cognitive self-regulation, or motivation. Each type of feedback serves a distinct purpose in enhancing learning outcomes.

The first type of feedback, task or product feedback (hereafter, I will refer to it as "product feedback" to avoid confusion with feedback on the task process), is "about how well a task is being accomplished or performed, such as distinguishing correct from incorrect answers, acquiring more or different information, and building more surface knowledge" (Hattie & Timperley 2007, p. 91). It is useful at each stage of the learning process, but its effectiveness diminishes in later stages. It is less effective for deep learning, that is, for making connections and inferences between pieces of information (Hattie & Timperley 2007, 93). Teachers usually provide product feedback with assertions like "that is right" and "that is wrong" or through grades. Unfortunately, as the research shows (Butler, 1987; Kirschner et al., 2006), this offers minimal information to students on how to correct their mistakes and, more importantly, on what their mistakes were in the first place. Moreover, feedback that focuses solely on the product fails to offer learners guidance on how to avoid errors or reinforce successful

strategies. As a result, crucial information is lost, hindering students' ability to improve and develop deeper understanding.

Another relevant type of feedback is metacognitive feedback, which focuses on self-regulation and helps learners refine their strategies, recognize when expected outcomes fail, and develop internal feedback mechanisms. This is unquestionably a kind of feedback of the highest importance. It is essential to create ultimately independent learners. Its effectiveness is generally more pronounced in the later stages of the learning process. One limitation of focusing too much on providing metacognitive feedback is that it risks making students better at applying metacognitive strategies in the abstract. Metacognitive feedback is useful only when learned in conjunction with specific tasks. Philosophy students, for example, will not get much of a lecture on the best practices for writing philosophical texts if they do not involve writing philosophical texts on specific subjects.

The third kind of feedback is motivational or emotional feedback. Although it is valuable for learning, it is less effective compared to the other types. Its benefits tend to diminish when used in conjunction with different types of feedback, as it primarily serves motivational purposes. Although motivation is an essential component of teaching and learning any discipline, it cannot replace product, metacognitive, and process feedback. Empirical research demonstrates that learners tend to perform worse when teachers prioritize motivational feedback over product feedback (Hattie & Timperley, 2007; Wisniewski, B. et al., 2020). One reason is that, given our limited human working-memory capacity (Miller, 1956), motivational feedback interferes with students' focus on feedback on the product and the process.

The last kind of feedback is process-oriented feedback (hereafter, I use "PF" for process-oriented feedback). As its name indicates, PF provides information about students' current learning state and information on how to proceed to attain the desired learning state. By its very nature, it is more specific, targets challenging activities, and fosters successful learning. We can define PF as:

> **Process Feedback (PF):** information about students' current learning state—relative to certain epistemic goals—and guidance on how to proceed to improve and thus achieve a more advanced epistemic state: better knowledge and skills in a given domain.

Hattie and Timperley's (2007) review of teaching and learning strategies shows that "the highest effect sizes involved students receiving information feedback about a task and *how to do it more effectively*" (p. 84, emphasis added).[2] Moreover, the usefulness of any pedagogical strategy largely depends on the quality of PF. As Hattie and Donoghue (2016) observe, "while it is possible to nominate the top 10 learning strategies, the more critical conclusion is that the optimal strategies depend on where in the learning cycle the student is located" (p. 9). Of course, "there can be a powerful interactive effect between feedback aimed at improving the strategies and processes and feedback aimed at the more surface task information" (Hattie & Timperley 2007, 93), but PF still plays the pivotal role for deeply mastering a subject and continues to be the most effective type of feedback (Balzer et al., 1998; Butler, 1987; Earley et al., 1990).

[2] See Marzano (2010, Appendix B) for an explanation of the meaning of "effect size" in the context of education.

PF consists of providing information about, for example, how a learner must proceed to acquire and refine the skills for successful swimming in competitions. It offers crucial information about the correct placement of hands and legs, the optimal timing for kicking and moving elbows, and specific information about the body's interactions with water during different stages of learning. In addition, it includes information about the quantity and quality of the training regime, the schedule, and timely information about endurance, strength, and technique.

Paying special attention to the process is even more important than employing specific learning and teaching strategies. The swimming training regime differs at early and later stages. The limb dynamics required for a novice are not the same as those for a competent swimmer. The same holds true across fields like biology, physics, and art. In physics, for example, PF helps students develop expert mental representations to solve problems effectively. Students' progress from categorizing physics problems by object categories like "spring problems," "falling bodies," and "inclined plane" to abstract fundamental physical principles like the law of conservation of energy, and F = MA, and considering initial and final conditions (Chi, Feltovich, & Glaser, 1981).

One implication of taking PF seriously is that teachers across disciplines can design more effective teaching and learning strategies if they examine more closely and structure the process students must undergo to learn, as well as stay informed about students' learning process. The most effective teachers, Rosenshine (2012) observed, "ask students to explain the process they used to answer the question, to explain how the answer was found. Less successful teachers ask fewer questions and almost no process questions" (p. 14). Unfortunately, despite its proven effectiveness, PF is not a recurrent element in educational practices.[3]

Effective Process-Oriented Feedback Attributes

Although PF is always effective, its impact is maximized when it possesses four key attributes. PF must be specific, target challenging activities, timely, and sufficient.[4]

First, PF must be specific. Offering targeted, corrective advice to students is significantly more effective than simply pointing out general procedural strengths and weaknesses (Nicol & Macfarlane-Dick, 2007). Delivering vague information is detrimental to learning because it fails to guide the learner on what to avoid, retain, and improve. Usual guidelines like "you are doing it right" or "you are making a mistake" offer little guidance because they neither specify what they are doing correctly or incorrectly nor offer guidance on how to address their errors.

[3] Across almost any discipline, students tend to rely on ineffective learning strategies, like rereading, highlighting, underling, cramming, and rote memorization (Dunlosky et al., 2013). This is where teachers should encourage students to adopt better strategies that incorporate PF strategies like retrieving, elaboration, testing, and self-explanation (Chew & Cerbin, 2020).

[4] If teachers are going to provide feedback, especially PF, they need first to check for students' understanding. Knowing students' prior knowledge and their learning state is fundamental to offering any recommendation. Unreflective feedback delivery is not sufficient because it can consolidate errors. "Practice, we are told, makes perfect, but practice can be a disaster if students are practicing errors!" observes Rosenshine (2012, 17).

The key lies in the specificity of the information provided about the necessary steps to achieve a specific goal. For example, teachers can present the steps to perform a task or solve a problem as "worked examples." One case is solving a math problem "for which the teacher not only has provided the solution but has clearly laid out each step" (Rosenshine 2012, p. 15). Worked examples work because, among other things, they "allow students to focus on the specific steps to solve problems and thus reduce the cognitive load on their working memory" (2012, p. 15).

Another key characteristic of PF is that it must be delivered timely to students. Feedback can be immediate or delayed. Delayed feedback helps students consolidate knowledge and skills into long-term memory (Agarwal & Bain, 2019). It also helps students know the outcome of their efforts, identify the causes, and understand how those causes contributed to the final product. It is useful when the student needs to see the whole, instead of the parts.

However, given the limited capacity of working memory, delayed feedback is of little value at the early stages of learning. If feedback is not immediately available, the chances of integrating the correct information into long-term memory diminish considerably. Therefore, teachers should deliver PF when students still hold in the working memory (usually minutes or seconds) the necessary information to become aware of their procedural errors and successes. For example, a swimming coach provides timely PF to an aspiring professional swimmer immediately after noticing a mistake in elbow positioning or the alignment of the body. Similarly, a physicist provides timely PF by correcting students who focus on superficial features of a physics problem rather than applying physics fundamental principles like the law of conservation of energy (Chi & Feltovich, 1981).[5]

Besides providing immediate and delayed PF at the right time, teachers must also make sure students receive feedback at regular intervals, say weeks and months. Receiving feedback only once or twice is insufficient. Even if teachers get learners to attend and understand the immediate feedback they receive, they also tend to forget it quickly unless it is revisited in future opportunities.

Sufficiency is also necessary for effective PF. PF should be neither excessive nor insufficient. But how can one determine the right amount? Teachers can find the answer in students' current learning state. The nature of PF must fit students' stage of learning. Feedback is ineffective if it is too advanced for beginners or too basic for advanced learners. The beginner will be overwhelmed by too much information, while advanced learners may receive redundant feedback.

Given that excessive PF is a common pitfall that overwhelms students' working memory, teachers can, as Chew & Cerbin (2020) recommend, segment and provide an outline of their lectures to students. Teachers can build on students' prior knowledge, use dual coding tactics (combining visual and auditory information), and make the most of "teachable moments"—moments when students are most receptive to learning. On their part, learners can avoid multitasking and make diagrams (Chew & Cerbin, 2020).

[5] Delayed PF then serves as a means to consolidate the information previously acquired by immediate PF.

The final component of effective PF is that it must target activities that are challenging but not overwhelming to students. Providing PF on already mastered or too-easy skills is of little help. Instead, meaningful PF should address areas where students are still struggling to understand or perform and, therefore, require help. Teachers must calibrate the right quantity of PF to challenge students. Too little PF can be too challenging for students. Excessive PF can make the learning process too easy, reducing the necessary level of productive struggle required for students to effectively embed knowledge into their long-term memory.

Having established a general understanding of process-oriented feedback (PF) and its fundamental characteristics, we can now proceed to examine its relevance to philosophy. I argue in the next section that this kind of feedback is essential for teaching and learning practices in philosophy.

The Importance of Integrating Process Feedback into the Philosophy Classroom

In this section, I argue that feedback, especially PF, is uncommon in philosophy classrooms. On the contrary, most philosophy teachers are unfamiliar with PF and its importance for effective learning. However, we can justifiably infer that the empirical evidence suggests that improvement of current teaching and learning practices of philosophy requires PF, especially to master the distinctive tasks of philosophy like writing, reading, dialoguing, and, of course, lecturing.

The Insufficiency of Process Feedback in Teaching and Learning Philosophy

Although philosophy teachers know, at least implicitly, that feedback is critical for learning philosophy, they often do not sufficiently appreciate its importance. One consequence is that, as D'Amour (1977) observed:

> Neither the anthology nor the lecture allow for practice, let alone supervised practice in which the student is prompted, encouraged, given individualized feedback and reinforced. Is it then surprising that the typical midterm paper is often an example of totally undisciplined and unskilled philosophical writing, especially given that it is one of the few times the student actually has a chance to practice doing philosophy and that this practice is unsupervised? (p. 80)

One explanation is that, as in other disciplines, most philosophers tend to learn how to teach and provide feedback by imitating their own teachers and through trial and error (Lortie, 1975; Concepción et al., 2016). Some philosophers have also explored the educational and psychological literature on the best teaching and learning practices (take a look at, e.g., the *Teaching Philosophy Journal*). Drawing mainly from these two sources, they apply and offer a wide range of pedagogical recommendations. Some philosophers recommend having students study in pairs (Zager, 2021), do puzzles (O'Brien, 2024), engage in peer feedback (Walsh et al., 2014), and, most notably, participate in active learning activities (Adkins, 2024; Koolage, 2024; Pearlman, 2019; Stokes, 2012), among many others.

There are countless pedagogical strategies to choose from. One may wonder whether any of them is better than the others. Teachers of philosophy may well think that pedagogical efficacy is just a contextual matter or a question of popularity. After all, research on instructional effectiveness indicates that almost all kinds of pedagogical intervention work! (Hattie et al., 2015, p. 82). However, we must bear in mind that "every method seems to work, relative to not implementing that method. This leads many to concluding that their particular method of teaching does enhance learning" (Hattie et al., 2015, p. 82). Although all methods improve learning, the empirical evidence suggests that methods are most effective as long as they incorporate PF. Undoubtedly, the other types of feedback are also highly effective, but we must bear in mind that PF has consistently proved to be the more effective type.

But why should we believe that PF is pedagogically effective? How can we be sure it is not just another pedagogical trend? Moreover, is not PF already part of philosophy's pedagogical practices?

The answer to the first question is twofold. On the one hand, feedback principles have been part of widely recognized teaching and learning practices of philosophy from antiquity. Consider the Socratic method and the characteristics of PF that his pedagogy embodied. As Colter and Ulatowski (2015) highlight in their analysis of Plato's *Meno*, Socrates used a form of "scaffolded approach." First, Socrates ensured that Meno's slave boy understood the basic concepts such as length, addition, and division.[6] Next, he clarified the problem he wanted the boy to solve: finding the length of the side of the square that would have twice the area of the initial square. As in any learning process, the boy fell into procedural errors, like believing that doubling the length of each side of the square would yield a square with an area that doubles the area of the original square. Socrates addressed those mistakes *immediately* by asking *specific* questions that demonstrated that doubling the length of each side of the square yields a square with an area four times as big. Socrates provided several *sufficient* rounds of PF that *challenged* the boy's preconceptions and gradually led him to the correct answer.

On the other hand, as we have discussed above, thousands of studies strongly support the effectiveness of PF. Contrary to other pedagogical practices and theories like discovery learning, problem-based learning, and the existence of learning styles (Bruyckere, Kirschner & Hulshof, 2015; Gardner, 2017), the effectiveness of PF is empirically well-supported (Metcalfe, 2017; Nicol & Macfarlane-Dick, 2006; Nietfeld et al., 2006; Ryan et al., 2021). PF is hardly a passing trend but one of the fundamental principles underpinning every effective educational practice across disciplines (Hattie & Timperley, 2007).

Responding to the first question, we must acknowledge that there is no doubt that some pedagogical strategies in philosophy instantiate PF—especially in analytic philosophy. For example, recently, many philosophers (Coe, 2011; Marcus, 2019; Mulnix & Mulnix, 2010) apply and recommend scaffolded learning, a strategy in which,

> The instructor guides the novice through a series of steps wherein the student, though at the first a mere novice with regard to the tasks and problems set by the instructor or

[6] In other words, Socrates considered the boy's prior knowledge of the matter before proceeding –an approach widely recommended in contemporary pedagogy.

> expert, eventually comes to a fuller understanding and comprehension of the material, such that the student has command of it by the end of the process (Colter & Ulatowski, 2015).

Scaffolding strategies often instantiate PF. However, only a reduced number of philosophy teachers employ them. But more significantly, scaffolding does not always involve providing PF on performance. A teacher might merely provide students with a series of prompts and graphic organizers explaining the writing process of an essay but may not directly give PF on the quality of the student's ideas or writing at the different stages of the learning process. Scaffolding can support students' learning with tools, resources, and strategies without PF.

These are some of the reasons explaining why PF is not just another pedagogical trend and why it is not already part of philosophy's pedagogical practices.

One implication is that it would be considerably beneficial to redesign philosophy's key tasks, like writing, reading, discussing, and lecturing, to incorporate PF. While there are many courses, congresses, and excellent books on how to do philosophy (Seech & Kania, 2024; Martinich, 2024; Saunders et al., 2008), they are no substitute for philosophy teachers who can provide more valuable PF that is specific, timely, challenging, and sufficient.

For example, in the case of learning how to read and write philosophical texts, teachers typically assign readings and assume that students would automatically and progressively develop the necessary and sufficient skills to read and write highly abstract and complex philosophical papers without PF. This strategy certainly works to some extent. Otherwise, we would not see around philosophers who excel at reading and writing philosophy. However, it does not mean that this strategy works better in isolation than in conjunction with PF. Lecturing in philosophy faces similar challenges. Like probably most academics, philosophers often assume that emulating their own teachers and engaging in personal trial and error is sufficient for learning to teach. However, again, although these ways to acquire teaching skills work, we have no reason to suppose that they work better in isolation than in combination with PF or than PF alone.

Some may argue that philosophy is a discipline with unique characteristics that cannot benefit from PF practices. Perhaps philosophy is a highly open-ended activity searching for deep original ideas rather than correct and incorrect solutions and procedures. The response to this problematic suggestion is that, even if philosophy is an open-ended inquiry, it requires mastering knowledge and skills that require PF in turn, like argumentation, writing in a clear and organized way, mastering the content of classical philosophical theories, and engaging in productive discussion. Mastering philosophical skills is a prerequisite for creativity in philosophy, as it is in other domains (Ericsson, 1999; Simonton, 2017).

Others may object that philosophy teachers are often constrained by time and large class sizes, making it difficult to implement PF. This difficulty is real, but some PF is better than none. They do not have to abandon lectures for a full PF-oriented methodology. Incorporating even a few minutes of PF would greatly benefit the effectiveness of their usual teaching and learning methods (see Rice, 2023, for practical suggestions). Moreover, philosophy teachers can design the class so that students get

valuable PF from peers, Walsch et al. (2014). I am not advocating for abolishing lectures but for making them more effective.

Another critique may be that different educational levels, cultural backgrounds, and individual learning approaches affect the effectiveness of PF. I do not claim that these factors do not affect the effectiveness of PF. PF, however, remains one of the most effective factors for learning across educational levels, cultural backgrounds and even learning approaches, as Hattie's (2008) review demonstrates.

Some may object that I overemphasize teachers' PF over peer feedback or self-feedback. Yes, any type of feedback is effective, but teachers' PF is most important at the early stages and is often more specific, timely, and sufficient than peer PF. Novices in any domain need guidance from experts, at least in the early stages (Ericsson & Lehman, 1996).

Lastly, even if we currently lack the specific evidence supporting the use of PF in philosophy, the empirical evidence suggests that philosophy teachers and students would greatly benefit from incorporating at least some PF into their daily pedagogical practices for writing, reading, lecturing, and discussing philosophical topics. In the following subsection, I present some illustrations of how philosophy teachers and students can integrate PF into their teaching and learning practices.

Incorporating Process Feedback into Teaching and Learning Practices in Philosophy

In this final subsection, I offer some indications for incorporating PF into teaching and learning philosophy. I present some illustrations of how philosophy teachers and students can integrate PF into the process of learning philosophy. I do not intend to offer a well-structured and detailed exposition of the general or a particular process of learning philosophy. Rather, my discussion is mainly illustrative of how philosophy teachers and students can integrate PF into philosophy tasks like writing, reading, lecturing, and discussing.

Mastering Philosophical Concepts and Claims

To begin, building on our earlier definition of PF, we can define PF in philosophy as follows:

> **Process Feedback in Philosophy:** information about philosophy students' current learning state—relative to certain epistemic goals—and guidance on how to proceed to improve and thus achieve a more advanced epistemic state: better knowledge and skills in a philosophical domain.

The process of learning philosophy usually begins with mastering philosophical concepts and claims to the most complex tasks of constructing philosophical arguments and theories. And, given that philosophy students typically begin their learning journey through the usual philosophical tasks of reading, attending lectures, discussing, and writing philosophy, I illustrate PF incorporation through activities involving reading, lecturing, discussing, and writing philosophy.

Let us start with concepts and claims. Before students can form their philosophical opinions or develop arguments and counterarguments on a topic, they must first grasp the fundamental concepts and principles of philosophers' earlier views. Typically, their first encounter with these views occurs through reading.

Some general PF suggestions on the process of reading, but equally applicable to philosophy reading, include the following activities. Students must survey the text to gain an overall understanding of the structure (scan for titles and subtitles) and connect the content of the text by relating it to what they already know: their personal experiences, other philosophical courses, and disciplines. They also must engage critically by identifying the purpose of the reading, forming their opinions, and raising objections.

Now, perhaps the first piece of PF specific to reading philosophy is that students should read, bearing in mind that philosophical ideas and concepts are inherently general and abstract. Students, especially those new to philosophy, should receive PF that encourages them to separate examples and thought experiments' superficial features from the underlying philosophical concepts (Saunders et al., 2008).[7] A specific strategy in which students can improve their understanding of key concepts consists of searching for what clearly, or almost clearly, falls into philosophical categories and what does not clearly fall into it. This gets students to think hard about examples and counterexamples. Teachers can offer students guidance on the process of finding concrete examples that fall into complex abstract concepts like Aristotle's categories of substance: quantity, quality, relation, and position (Russell, 2019).[8]

Concerning philosophical claims, teachers can offer guidance on exercises in which students work to differentiate between normative from descriptive claims, a priori from a posteriori, and consistent from inconsistent. Finn and colleagues (2012, Chapter 13), for instance, suggest having students read specific short philosophical passages like this one from Macchiavello:

> Many have dreamed up republics and principalities which have never in truth been known to exist; the gulf between how one should live and how one does live is so wide that a man who neglects what is actually done for what should be done learns the way to self-destruction rather than self-preservation. The fact is that a man who wants to act virtuously in every way necessarily comes to grief among so many who are not virtuous.

Then, teachers can have students answer questions that help them differentiate between clear, compelling claims from inconsistent and contradictory ones:

1. Are the main philosophical claims of the passage clearly expressed? If not, what claims are not clear?
2. Are these main claims compelling? That is, do the claims seem true or probable? If not, which claims are not compelling?

[7] To aid this process, it is also helpful to encourage them to search for the meaning of difficult concepts and philosophical jargon in encyclopedias of philosophy and dictionaries.

[8] Hultberg et al. encourage teachers of any discipline to "alternate concrete examples and abstract representations to help students recognize the underlying structure of the problems" (2018, 36).

3. Does the author make any claims that are inconsistent or contradictory with other claims in the passage? If so, which claims are they?

After students answer these questions, teachers can offer immediate and sufficient PF on students' most common specific questions, confusions, and mistakes. At more advanced stages, teachers can challenge students and offer PF on the evaluation and construction of paragraphs that include clear, compelling, probable, and consistent claims.

Although writing is not crucial at this stage, teachers can incorporate PF in exercises where students write brief definitions of key philosophical concepts and short critiques and defenses of significant claims. These exercises can be as concise as a few lines, assessing the consistency and clarity of the concepts and claims under consideration.

During lectures, teachers can provide clear and concrete definitions of fundamental philosophical concepts and principles. They can then encourage students to engage deeply by asking questions, presenting counterarguments, and participating in classroom discussions, followed by offering PF to support and refine their understanding.

Mastering Philosophical Arguments

After having mastered the fundamental philosophical concepts and principles, the learning process continues with the simplest task of identifying and evaluating arguments to the most complex task of constructing original arguments.

In the early stages of learning philosophical argumentation, teachers can provide PF on how to identify and evaluate arguments by designing exercises that explicitly encourage students to reconstruct arguments in the standard form of premises and conclusions (Cahill & Bloch-Schulman, 2012; Concepción, 2004). One step further is to accompany students' learning journey with PF for activities that get students to search for consistency, validity, soundness, and cogency (PF on identifying common fallacies is also valuable). For instance, teachers can offer PF on exercises that get students to supply the missing premises or conclusions from enthymemes and determine whether the arguments in specific passages are deductive or inductive.

As for argument evaluation, teachers can provide PF by having students exercise in distinguishing between deductive, inductive, and abductive argument forms. Teachers can also provide guidance on the process of classifying the quality of arguments based on typical dimensions like clarity, consistency, validity, soundness, and cogency. It would be helpful to incorporate PF, ensuring that students check for argumentative regress, apply the "is-ought" distinction, employ the principle of charity, tell when arguments are self-defeating, and differentiate between necessary and sufficient reasons (Fosl & Baggini, 2020).

Additionally, philosophy teachers can provide PF on students' understanding of fundamental distinctions like metaphysical versus epistemic, normative versus descriptive, and a priori versus a posteriori (Fosl & Baggini, 2020).

When learning to argue in philosophy, providing PF on writing is essential. Philosophy teachers guide students in allocating specific time for topic selection, reading, drafting, editing, and other stages of the writing process. Additionally, philosophy teachers can help students by explaining and asking for distinct kinds of philosophical writings of philosophy for different learning stages: basic summary papers in the early stages, evaluative papers in the middle stages, and thesis-defense papers in later stages.

In the process of writing traditional thesis-defense papers, for example, students must present both their own arguments and those of others as clearly and charitably as possible. Teachers can offer PF to avoid overly broad or narrow theses and encourage students to develop original ideas—even if they are only new to them (Seech & Kania, 2024). Teachers can explicitly ask for and provide specific PF on outlining the text, introducing the topic, and outlining the plan in the introduction, as well as crafting a strong conclusion. When constructing the body of the paper, teachers can assist students in identifying premises and conclusions, employing sufficient examples and analogies, and strengthening their arguments by posing objections and responding to them.

Latecka (2020), for instance, employs a strategy she calls "the six-line argument," an update of Earl's (2015) original four-sentence paper. Students write following this six-line argument template:

1. Introduction_____
2. They say_____
3. I say_____ because_____
4. They object_____
5. I reply_____
6. Conclusion_____

This simple template offers students the opportunity to practice the fundamentals of structuring philosophical arguments and essays. With teacher guidance, students learn to clearly outline the structure of their argument, present opposing views, defend their positions, and develop a well-rounded conclusion (lines 1-3). Lines 4 and 5 help students appreciate the importance of responding to actual or potential objections as a way to strengthen and deepen their arguments.

Another example of PF in learning to write philosophy comes from Walsh and colleagues' scaffolded approach to writing a traditional term paper on a philosophical topic. They structured the learning process as a progressive sequence from simple to complex skills. The process begins with students proposing topics, selecting one, and narrowing it down to a focused area of inquiry. Second, they have students write a text of 5 to 6 pages analyzing and explaining a specific philosophical debate. Third, students write another 5-6 page text evaluating the positions and developing an original argument in response. The final stage asks students to respond to objections, provide sufficient examples, and

assess the implications of their arguments. At each stage, Walsh and colleagues offer several rounds of immediate specific PF in the form of written comments and peer review.[9]

Walsh and colleagues (2014) found that this scaffolded approach, along with the several rounds of PF, significantly improved students' understanding of philosophical concepts, claims, and arguments. Students made fewer mistakes, such as a paper lacking a thesis and presenting poor organization.

Besides approaches such as Walsh and colleagues, philosophy teachers can offer valuable PF at lectures. Besides organizing their lectures in a schematic form, clearly outlining the fundamental concepts and claims about the topic, teachers can offer specific and immediate assistance to students' objections, questions, and opinions.[10]

These are just a few illustrative, practical, flexible, and non-exhaustive ways that philosophy teachers and students can incorporate PF into their teaching and learning practices. A likely outcome of adopting this feedback approach is that students will learn more effectively, and teachers will enhance their instructional methods, regardless of their personal teaching and learning strategies.

Conclusion

Process feedback is one of the most critical factors for learners' improvement, as demonstrated across every domain of knowledge. Philosophy is no exception. Integrating it into the teaching and learning of philosophy is not merely advantageous but imperative.

Integrating process feedback into philosophy will help to improve both teaching and learning practices in this discipline. Students will develop a deeper understanding of philosophical concepts, refine their ability to construct claims and arguments, and improve their critical thinking skills. At the same time, teachers will become more effective in guiding and supporting students' learning process.

There is no doubt that, although process feedback is critical, it is important to acknowledge that other related factors also play a crucial role in improving teaching and learning, such as setting clear goals and implementing strategies and tactics designed for specific contexts. However, by integrating process feedback into philosophical pedagogy, we are taking a significant step toward fostering more engaging, effective, and impactful teaching and learning practices.

[9] In addition to the term paper, students participate in exercises "that give students additional opportunities to practice the relevant skills" (Walsh et al., 2014, 484), including interpreting and explaining a passage, applying a concept or claim to an example, evaluating philosophical claims, and developing arguments.

[10] Additionally, teachers can guide philosophical discussion in such a way that students engage in a dynamic and immersive exchange of arguments, allowing them to explore different perspectives in a creative way.

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