

Reflective Writing and Course Stories in Economics Teaching

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Abstract

Reflective writing has been used in STEM disciplines and particularly in medicine to improve diagnostic reasoning. Similar to medicine, economics students need to be able to diagnose what a problem is asking of them and then to work out what the correct response are to the diagnosis given. Reflective writing also helps students to confront the cognitive challenges of learning. Through reflective writing students may improve their mindset in the class, to help them to improve their metacognition, the address fear and mistrust they may have, and to help them to improve their learning strategies. Consistent with the psychological literature on normalizing overcoming adversity in a communal setting, I argue that reflective writing practices may also improve student belonging in the classroom and, when paired with corresponding grading practices, may also help to improve diversity, equity, and inclusion in the economics classroom. I describe my practice of using reflective writing in three different tasks: experiment reports' exam wrappers, re-dos, and reflections; and course stories. I provide the important course briefing details for each task and some examples about how students responded to the course stories specifically.

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Introduction

Though learning outcomes in the economics literature articulate the importance “to think critically about economic methods and their applications” or “to communicate economic ideas in diverse collaborations” (Allgood and Bayer, 2017: 662), few resources exist to improve student learning for these important outcomes, though many exist for the more quantitative aspects of our discipline. The exceptions prove the rule, with papers on writing—and in “writing in the disciplines” particularly—providing a basis on which to structure writing *in* economics or the quantitative social sciences. But, even when a student engages in such writing tasks, these tasks may not revolve around aspects of elaborative interrogation, self-explanation, or metacognition that try to encourage the student to make connections between different parts of their learning (Dunlosky et al. 2013).

To achieve these outcomes, inspired by faculty in other STEM disciplines, I introduced reflective writing practices into three economics courses: introductory microeconomics, intermediate

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microeconomics, and economic development. These reflective writing practices took various forms, but the main form is called a “course story.” Course stories are a reflective writing activity, typically done at the end of the semester, where a student sums up their experience of the course in a way where they are the protagonist in a story where they engage with the course content and make connections across the content in ways that need not involve economic theory at all. The idea is to encourage a student to think in new and original ways about how their relationship to the course changed over the semester and to chart a trajectory through the course, therefore encouraging self-explanation and metacognition.

When I say that course stories are a *reflective* writing practice, what does that mean? First, it means that the kind of writing is different to the discursive, theoretically or empirically-based papers that students are more accustomed to writing. Second, the writing is personal. My reflective essay will be different to yours because my experience of the course: the questions I got wrong, the ideas I struggled to understand, and the content I was worried about will differ from yours and, in particular, my emotional and empathetic responses to each of those will also differ from yours. As a result, how I process and think about those experiences will be different to how you do. In this way, reflective writing fulfills Dewey’s long-standing assertion that “[Education] is that reconstruction or reorganization of experience which adds to the meaning of experience” (Dewey 1944). Reflective writing is one means by which to produce this reconstruction and reorganization. Reflective writing has been used in a variety of disciplines—in particular in STEM disciplines (CITATIONS). In medicine, particularly, reflective writing and self-explanation have been shown to help student students improve diagnostic reasoning, most likely through self-explanation (Chamberland et al. 2015). My intention with introducing these writing practices was to try to confront a variety of issues in the courses I taught, explained well by Chew and Cerbin (2021) as the cognitive challenges of effective teaching. I argue these activities help to manage the following challenges: 1) student mindset, 2) metacognition, 3) student fear and mistrust, and 6) ineffective learning strategies (using Chew and Cerbin’s numbering).

In the manner of the topic I address, this essay is more of a reflection on the use of these methods in my courses (though in an academic way), than it is a contribution to an empirical literature on the topic (I did not conduct experiments with the students to assess the effectiveness of the task, nor did I complete surveys of the students to ask them to reflect on their writing reflections as that felt as if it would be redundant; notwithstanding which I didn’t have reasonable sample sizes to detect effects on the variables of interest given the structure of the interventions). Though I argue for reasons why reflective writing practices are helpful for student belonging and mindset and for diversity, equity, and inclusion reasons in the economics classroom, these tasks are but one means among many by which an instructor could promote such outcomes. Furthermore, I do not argue that all instructors should adopt these practices; on the contrary, I think they are typically suited to instructors who have smaller classes where the instructor is likely to get to know students relatively well and where a student’s reflective writing perhaps plays into a longer-term relationship between student and instructor over the course of a major rather than only in one class. When a student writes a good course story, then she is likely to get personal in that story—to recount hardship and struggle. It is better if

she knows that the person to whom she is recounting such hardship is on her side and willing to help her later in her student career.

Course Structure and how the reflective writing fits in

The three courses in which I have used reflective writing were introductory microeconomics, intermediate microeconomics, and economic development. The courses were taught at a liberal arts college with enrollments for these courses ranging from 20 to 55 students. Depending on the semester, the courses would have been taught either two days or three days a week with roughly three hours of student-teacher face time per week. The courses were taught with a combination of lectures, discussion-based topics, active learning activities, and in-class experiments. When experiments were used, students were required to write about the experiments in a theoretical way and discussing the evidence, but the reports also included an aspect of reflection because students were required to explain *their own* behavior and to articulate why they made the choices they did.

Each of the courses also included midterm exams. The midterm exams also included an opportunity for reflection and tasks to improve metacognition. Students were invited to complete “exam wrappers” to reflect briefly on the exam and their completion of the exam (Lovett 2013). Moreover, students who achieved below the median points for the exams were permitted to re-do questions of the exam that they got incorrect and then to reflect upon *why* they got the questions incorrect (Halliday 2019). Like the more basic exam wrappers, re-doing questions and actively reflecting on them encouraged a student to engage in metacognition—to think about their thinking and learning—in a way that many of them were not accustomed to doing. The reflection also gave me the grounds on which to have a conversation with a student about her learning and study skills: helping me to identify with a student potential shortcomings in her study methods (Chew and Cerbin 2021). A student who scored below the median points for the exam could then, having done the tasks above, achieve the median points. As a result, it was typically only students who obtained significantly fewer points than the median number of points who chose to do these tasks and those students were often the students who needed to do the task most, which I believe made the task more incentive compatible.

There are several reasons to include such reflective writing tasks in a course. First, in terms of the ethical stance of this instructor, the outcome I want to achieve at the end of the day for a course that I teach is that a student comes away with *learning* or some sense of *mastery* over the material. With that outcome defined (rather than a rigid attendance to zero sum grading structures, such as grading curves), it is also important to acknowledge that different students have different barriers to overcome to engage in learning. Though two students—call them Angela and Baharak—may have fulfilled the same prerequisites for a course (such as algebra or pre-calc for an introductory economics course; or introductory economics for an intermediate theory course), this fulfillment does not imply that the students enter the course with the same capacities. But both Angela and Baharak may be able to achieve the same grades in the course that they are both taking if given the opportunity to correct for past inequalities in learning or preparation.

Another reason to consider including reflective writing in a course is because it can lead to greater belonging in the class and to a class that promote diversity, equity, and inclusion. I articulate some of the ways this occurs later when addressing the areas of mindset and belonging particularly, but thinking purely about the unequal preparation I described above between Angela and Baharak, if Angela enters with less preparation for the course than Baharak does, and this difference in preparedness corresponds to inequalities in the world that result from inequality in resources because of Angela's membership in a group (perhaps she is an underrepresented minority) or a first-generation student, or she has access to fewer family resources that provide students the capacities to engage in educational activities (students with wealthier backgrounds, for example, may be able to spend more time on tasks for education or co-curricular activities whereas students from less wealthy backgrounds may need to do more menial jobs or jobs less directly tied to their major and therefore not have as much time to study). Therefore, by using, say, exam reflections in which a student can reflect on her exam and achieve a higher grade, I am offering that students the opportunity to do better than she otherwise would have done and to learn at a pace that may be more appropriate for her level of preparation. She is still penalized because she cannot obtain a grade higher than the median, which I also believe helps to make the intervention incentive compatible.

Mindset and reflective writing

In quantitative subjects, students may often feel as if their capacities are fixed—e.g., that they are “not mathy” and therefore “can’t do well” at economics or other STEM courses because they do not consider themselves a “science person” (Chen et al. 2021). Similarly, instructors may have fixed mindsets about their students, e.g., that their students “don’t work as hard as my students used to work” or that “students from [group x] are just smarter [or insert other fixed characteristic] than other students” and these instructor mindsets may undermine student performance if an instructor believes that students cannot improve or change (Canning et al. 2022). When I use reflective writing tasks, I intend them to convey information about the student to me (the instructor) and I intend the student’s engagement with the task to convey information to the student about *herself* and about *my intentions* towards the student (i.e., that I do not have a fixed mindset about her potential in my class).

For example, with the exam reflection task, I want to disabuse the student of the idea that she may be “stupid” and “just not good enough” to solve a particular problem. If she has time to sit down in her dorm room, think about a problem, and attempt to solve it in a less fraught environment than a sit-down exam, then she may come up with the solution herself. In reflectively writing about their experience of the exams, students would often say that they didn’t manage the time of the exam well, for example, writing too much for low-stakes questions than can be answered quite quickly and resulting in the student not leaving herself enough time to answer more challenging questions. The student may therefore move away from having a fixed mindset about her own capacities and learn something more about study skills, exam skills, and her ability to improve, that she might not otherwise have done if she had not engaged in the reflective writing task.

With respect to course stories, I have a similar intention about mindset. In intermediate microeconomics specifically, where many students do poorly on the first problem set, first midterm exam, or first quiz, the course story gives the student the opportunity to recognize her ability to experience adversity, overcome it, and nonetheless to persist. She may not have gotten the grade she originally wanted at the end of the course, but she often has a better understanding of her capabilities as well as greater sympathy with others because of a shared endurance of adverse circumstances with other students.² I show this with two example course stories in a later section.

Reflective or personal writing in economics education

In the economics education, a large share of work is given to thinking about how to teach writing economics in variety of different ways. Brewer and Jozefowicz (2006) provide a set of writing tasks based on students reflecting on the ways in which economics is in their daily lives, which is similar to what Robert Frank has said in his economic naturalist assignments (Frank 2002, 2006). Note that the way Brewer and Jozefowicz use the term “reflection” is different to how it is used in the literature on “reflective writing.” For Brewer and Jozefowicz (2006: 204), “students write a paper [...] in which they explain how one or more of the major concepts in the recent course material relate to their lives.” In contrast, the practice of reflective writing in the broader STEM and education literature situates reflective writing as cultivating empathy as much as it as about creating connections between existing knowledge and the external world. Furthermore, in terms of

In medical education, for example, reflective writing and other reflective teaching practices have corresponded with improved diagnostic reasoning—and the underlying ideas of diagnostic reasoning (identifying the causes of a patient’s symptoms) transfer in to the capacities we want from students in economics: to diagnose what a question asks and to come up with the appropriate response to the diagnosis (Mamede, Schmidt, and Penaforte 2008). This builds on the idea that students who engage in self-explanation may be more likely to diagnose a problem correctly compared to students who do not engage in self-explanation and who do not make those connections, evidence for which has been found in medical education (Chamberland et al. 2011).

In some ways, therefore, reflective writing is more like an autobiographical version of what Dalton (2010) uses in her “narrative interview” task where a student can “create narrative knowledge, whereby knowledge in one person arises upon hearing another person narrate an experience” (Dalton 2010: 255). In the case of the reflective writing tasks assigned here, I intend students to interrogate their *own* motives, to construct a narrative or story with themselves as the protagonist, and to use the practice to identify connections among economic ideas given their own experiences and the stories they tell themselves about their participation in the class.

² When I taught at this institution, I typically surveyed students at the start of the course and asked them what grade they hoped to achieve for the course. I also asked how much time they planned to work on the course. Many more students hoped or planned to get an A grade than actually achieved them.

Assigning the task

Because reflective writing tasks are different to tasks students are accustomed to completing, it is important to be transparent with students about the tasks and what they involve. In my classes, I have included the course stories in the final problem set for the three courses I mentioned. In intermediate microeconomics, for example, the final problem set is a final report using microeconomic theory alongside the course story. Both involve writing, but the kind of writing differs greatly. Because the final task is important and requires scaffolding for students, I provide the briefing for the final problem set much earlier than for others in the course (and typically before they have even completed the previous problem set). The reason for this is to alleviate anxiety around the final report task and also to give students the opportunity ask questions about the reflective writing task. Furthermore, it is important to provide students with examples so that they can identify what other students have said. Furthermore, in later iterations of using course stories, I showed students other students course stories *at the start of the course* so that they would understand what other students had written about the course and how they had reflected on their path through the course. Because many students documented struggling with course content during the course in their course stories, this served to provide information to students that struggle was commonplace (without knowing it, I had been therefore making common struggle or overcoming adversity a more broadly understood aspect of the course and students could identify their own struggles in the struggles of other students; in retrospect I believe this may have improved feelings of belonging consistent with interventions around course belonging conducted in other fields, as in, e.g., Binning et al. (2020) or Williams et al. (2020)).

Reflective writing in my classes: Guidelines, examples, and grading

For each type of task, students are given clear descriptions of the task to encourage them to write in a way that is reflective and that will achieve the goals intended by the stimulus of the activity.

Course stories

For course stories, as provided by the example prompt in the appendix, students are told explicitly that a course story is *not* a simple summary of what a student has learned (in a brick-by-brick way building from base to finish). However, in many cases, students default to summarization despite being told that summarization is *not* what a course story is. Course stories therefore *need to be graded*. That is, to make the reflective writing task incentive compatible, students need to be able to *fail* at reflective writing. A student who engages properly with the prompt must be able to do better at the task than a student who simply summarizes the course. I have therefore told students subsequently that they will do poorly (4 to 6 points of out 10 for the task) if they only summarize the course. To get 9 or 10 points out of 10, a student must try to engage actively with the task as it is described. They should make it personal in some way. How can you make it personal? Be embedding what you have done with it in your own interests, beliefs, and capacities.

Let me illustrate some of the capacities I wanted to observe through what different students did for the task:³

Student 1:

From [Introduction to Microeconomics], I had the general basics, and could connect some things that I experienced or learned outside of class to the economic forces behind it, but now, after [Intermediate Microeconomics], I feel as though I have an increased ability to analyze and predict and speculate, not just to understand some of the general forces behind events in the economy, markets, and world as a whole. My “economic outlook” has gotten more ingrained. For instance, when I watched the commercial for the Windows’ tablet, where they have the Apple MacBook Air next to it and are comparing— I thought about the reasons for that idea. Windows’ was trying to present their product as a substitute for the MacBook Air, or, as the commercial stated, as a ‘better’ product than the MacBook Air— but what occurred to me was that because of the immense economies of scale that Apple has (in terms of the amount of people who use their laptops currently— because laptops aren’t something you can just casually throw away and replace, at least for most people), and because of the brand loyalty that they maintain, in order for Windows to hope to be thought of as a substitute to Apple at all, they would have to present themselves as better, because if they were simply equal, not many at all would even consider leaving Apple, even with its higher pricing— because Apple products are a great deal more inelastic than Windows’ products.

Student 2:

My reverie is shattered by a shrill voice from across the room: “IF HE PUTS LAGRANGIANS ON THIS TEST I WILL WALK OUT. DON’T TALK TO ME ABOUT LAGRANGIANS RIGHT NOW.” I silently concur, mentally shake my fist at the gods, breathe in deeply, and open my notes. [...] I consider turning my subwoofer on and blasting the twenty-minute webcast on mutual gains and conflict, but decide against it. Instead, I wander over to [Student residence] to meet with my study group. “Literally what is this? What does this mean?” exclaims my peer, “I don’t know how to feel.” I listen to my friends and I realize if nothing else, I am not alone. We work and we talk and we agree and we disagree and we get it done. Against all odds and even my better judgment, I develop an interest in econ. I realize that I’ve come a long way from just being an econ major by default. I start to realize I like econ. I REALLY LIKE ECON.

Student 3:

By this degree, I think the greatest lesson I learned from this class is that by working together, you can succeed. The students that were better at math would explain step by step each production function, each best response function, each profit function, etc. Those of us who were better at conceptually grasping the ideas behind the theories we were learning would explain them in plain language – sometimes using public figures like Kanye West, Warren Buffet and nuns to describe Homo reciprocans, Homo aequus, and Homo generosus, respectively.⁴ We

³ Students provided explicit permission to provide examples to other students and for my related work.

⁴ These were names we came up with in class for reciprocal behavior, inequality-averse behavior, and altruistic behavior in contrast with self-regarding *Homo economicus*.

also drilled into our brains that best response functions are found through FOC, by yelling FOC at each other when working on the problem sets. We learned our risk aversion by seeing who in our study group acted more risky by partying on the weekend before the exam, and those who stayed in and studied the whole time. And no one will ever forget that when Aram and Bina go fishing, their Nash equilibrium doesn't necessarily mean it is Pareto efficient.

Each of these students demonstrate a different way in which to reflect on the content and the course. Student 1 demonstrates connections between different ideas she observes in the real world and the ways in which her own capacities have become more ingrained in terms of her “economic outlook” or the ways in which she thinks about the world through the lens of economic theory. Student 2’s reflection is more personal and about struggling with concepts for the exam, about working with fellow students on problems, and about the fact that she’s surprised by her own enjoyment of economics despite (or perhaps due to) the shared struggle with other students. Student 3 identifies how students can collaborate, rely on each other’s comparative advantage, and help each other to improve their understanding and, in so doing, they are demonstrating the ideas in the class content itself. I chose these as they are more “traditional” forms of reflective writing, but I have also had students write science fiction or fantasy short stories where they were trying to conquer the stars (the course) and chart their course through them, or where their quest was to defeat intermediate microeconomics. In another, a student (who also took courses in theater), wrote a dialogue between herself and other students (and an unnamed professor) about ideas relating to the course, to the students’ experience of the course, and to their real lives. In each case the students were explaining to themselves the relevance of economics, of their own understanding, and of connections between the content and ideas *outside* of the course itself.

Reflective writing in experiment reports

In the experiment reports, among other guidelines, the description of the task said the following:⁵

- *Describe* what you thought about the experiment
- *Discuss* why you made the choices you did after completing the instructions, during the actual rounds of the experiments and then after the experiment was completed and you have had some time to think about it
- *Reflect* on the results of the experiment (the aggregated results from the experiment)

And later when tell students how I will grade the report (through a set of questions I ask myself while grading), I ask:

- Did the student demonstrate that they could reflect clearly on their own behavior and preferences? Recall for many of the experiments your preferences are simply *your preferences* (no judgment attached)?

⁵ Full instructions are available at http://simondhalliday.com/behavioral/exp_reports.

The main experimental tasks I ask students to engage in involve one of the following sets of experiments: choices of risk with a price list (more a task than an experiment; this is to get them familiar with multiple price lists); public goods games with punishment; common pool resource games; double auctions; games with complete and incomplete information. Because students are explicitly told that *their behavior was not being graded*, students felt free to tell me that they made mistakes, that they misunderstood the rules and things became clear at the end when we debriefed and they talked to classmates, that they were pretending to be someone else (i.e., someone with a different kind of preferences to their own) to understand how they experiment worked and what other people would do in response. These are all exactly the kinds of responses an instructor would want to see in reflective writing and which can be hard to observe in other circumstances where the “correct” answer is simply a solution to a problem rather than a reflection on or explanation of one’s own behavior. The experiment reports *also* included parts where a student had to diagnose the theory and the evidence correctly, but these were different parts of the experiment report and were graded on their own terms.

Reflective writing in exam wrappers and reflections

The brief for the exam wrapper and the instructions for the student to conduct the re-do and reflection are provided in the appendix. Students are asked specific questions about how they prepared for the exam and about what their beliefs about the exam were prior to the exam. Students are then asked to diagnose what caused them to lose points when they lost points in the exam. They are then asked to say what they plan to *change* in their approach to the next exam. Not mentioned on the exam wrapper is that I ask student to take a photograph of their exam wrapper before they hand it in as I want to read over it before choosing whether to email a student to encourage them to come and meet with me during office hours to go over their exam or to discuss their study methods.

The second part of the exam wrapper briefing details what a student should do to improve their grade to get the median grade of the class (in percentage or points terms). In this case, a student needs to answer the questions that they got incorrect for the exam and alongside their answers they need to reflect on why they got the question incorrect the first time. In some cases, students provide relatively generic answers as to “what went wrong.” In this case, a student will not receive the full points that would otherwise take them to the median grade. I tell students this in related briefing information for the exam re-do and highlight that a “reflection” that simply says, “I ran out of time” repeatedly is not sufficiently nuanced an explanation. I want to understand *why* they ran out of time, what they spent too much time on, and what they think they ought to do differently in the future.

Shortcomings and reflecting on failure

Let me be up front and say that adopting reflective learning activities such as those described above means that the courses are labor-intensive due to the grading burden. They require attention from the grader and the grader should ideally be the instructor of the course who—in

reading the reflective writing may become aware of how students are struggling in the course, and therefore become aware of ways in which to change their course that they may not have considered otherwise. As a result of the labor intensity of these activities, I do not believe they would scale well to institutions where there is less capacity to grade written work or in which there are not discussion sections facilitated by an instructor who comes to know their student over the course of a semester or term.

Though I tie the use of these reflective writing courses to ethical reasons for doing so (especially on the basis of diversity, equity, and inclusion), any such activity comes with an attached cost. Different institutions face different constraints and want to optimize different objectives, so when I argue for the ethics of such reflective writing tasks, I am not doing so in a prescriptive way, but rather intend to say that for instructors in similar situations with the opportunity to get to know their students well because of proximity, repeated interactions, and so on, then such reflective writing tasks can help that instructor achieve goals that they may have in ways that other tasks may not.

Each of the reflective writing tasks—the experiment reports, the exam reflections, and the course stories—require a diverse set of skills to grade and to respond to competently. I provide comprehensive briefs to the students about what to do for each of the tasks and spend a reasonable amount of class time explaining to them what they need to do. I did, however, not arrive at these outcomes without failing myself: I was initially not clear enough about my expectations for experiment reports or for exam wrappers. For the course stories, some students didn't get the message that it wasn't merely a generic summary of the course content and so I had to hammer home how important it was for it *not* to summarize the content, but to reflect actively and profoundly on their specific journey in the course. I have therefore had to reflect on and respond to my own challenges in assigning reflective writing in my courses.

Using the exam wrapper and re-do task means that I cannot immediately share exam solutions with students, which some students really want to see to understand where they went wrong. Typically, the students who most want to see these are high-achieving students and I explain to students why I cannot immediately share them. Sometimes this leads to some students getting agitated about the delay, but they always know that they will receive the answers at some point and at worst they will receive them before the final exam. However, I believe that these slight frictions are significantly outweighed both by the improvement in learning of those students who do the exam reflections and re-dos and by the general goodwill all students feel about the opportunity to fail, but in a lower stakes way where one failure won't jeopardize a student's overall success in a course.

Conclusion

By using reflective writing tasks in a variety of courses, I tried to promote student belonging, cultivate and signal growth mindsets, and improve student metacognition (among other outcomes). The tasks require students to engage in empathetic and careful thinking about their own thinking and about their trajectory over the course as a whole. In so doing, I was trying to employ student self-explanation and elaborative interrogation to improve their learning. These

tasks are described clearly in the text with examples in the appendix for other teachers to deploy directly in their classrooms. Though I do not have experimental evidence on the effectiveness of these tasks, the evidence on reading the reflective tasks themselves suggests that students improve their understanding as a consequence of their use (the sample sizes in my classes did not lend themselves to detecting a relationship even if I had been able to run an experiment). These tasks are most suited to classes in which an instructor (as lecturer or leader of discussion sections) gets to know their students during the semester and can identify the student's story and trajectory through familiarity and engagement with the student during the course, as well as helping them to work through exam reflections and the required metacognitive tasks that will help them improve in later assessments.

Appendix

Course Story prompt for intermediate microeconomics

Note: Certain details would change for other courses.

The goal of this question is to offer you a chance to reflect on Intermediate Microeconomics before you take things to an even more advanced level with upper-level electives and your seminar. One concept that we have been talking about in faculty discussions on teaching is the idea of developing a **course story**. The goal is to come up with a description of the course in the form of a story. It should be more engaging and big-picture focused than a traditional course description (such as you'd get in the course catalog). Now that you have completed Intermediate Microeconomics, what would your course story for Intermediate Microeconomics look like? You should write to a target audience of students with some economics background, e.g., Introduction to Microeconomics.

Your story should not just be a summary of what you have done in the course. It should be more like *your* "advertisement" for or a personal reflection on ECO250 or your "memoir" about Intermediate Microeconomics. Be honest. Be creative. Be funny. The course story is your opportunity to share your favorite economics metaphors, analogies, and pop culture references. Really, I'm interested in your story about how you have grown, what you have learned about yourself, and what economics from ECO250 you will take with you into the rest of your undergraduate career and beyond. I (INSTRUCTOR NAME) will be reading your course story.

Some guidelines:

The reflective writing in your course story **is**:

- your response to experiences, opinions, events, or new information in the course
- your response to thoughts and feelings inspired by the course
- a way of thinking to explore your learning in the course
- an opportunity to gain self-knowledge
- a way to achieve clarity and better understanding of what you are learning
- a chance to develop and reinforce writing skills
- a way of making meaning out of what you study

The reflective writing in your course story is **not**:

- just conveying information, instruction, or argument
- pure description, though there may be descriptive elements
- straightforward decision or judgement (e.g., about whether something is right or wrong, good or bad)
- simple problem-solving
- a summary of course notes
- a standard university essay

I shall put some examples of course stories I have received in previous iterations on [Virtual Learning Environment, (VLE)]. You'll hand your course story in via [VLE]'s assignment submission.

Appendix 2: Post-Exam Reflection (Due [DATE] in class) (adapted from Lovett & Perkins)

This activity is designed to give you a chance to reflect on your exam performance and, more importantly, on the effectiveness of your exam preparation. Please be candid in your responses, so they will be valuable to you and to me. Your responses are being collected to improve teaching and learning in this course. They will have no impact on your grade, but you will receive credit for thoughtful reflection.

Enter responses into the grey text boxes below.

Part 1. Fill out the form below.

After studying for this exam, how many points (out of 100) did you expect to earn?	_____
After completing the exam, how many points (out of 100) did you think you had earned?	_____
How many points did you receive?	_____
Approximately, how many hours did you spend studying for this exam?	_____
Did you study enough?	☐ yes ☐ no
Could you have studied "smarter"?	☐ yes ☐ no
What percentage of your test-preparation time was spent in each of these activities? (Total should be 100%)	
Reading textbook sections for the first time	_____%
Re-reading textbook sections	_____%
Answering end-of-section questions	_____%
Reviewing knowledge survey questions	_____%
Reviewing your own notes	_____%
Reviewing handouts	_____%
Discussing course materials and questions with classmates	_____%
Studying the relations among concepts and ideas	_____%
Carefully look over your exam and estimate the percentage of points you lost to each of the following. (Total should be 100%.)	
From careless mistakes	_____%
From not being familiar with terms	_____%
From not knowing facts	_____%
From not understanding concepts	_____%
From not being able to apply concepts in new contexts	_____%
From not seeing connections between concepts or facts	_____%
From other reasons (please specify):	_____%
Based on your responses to the questions above, describe at least three (3) things that you plan to do differently in preparing for the next exam. For instance, will you spend more time studying, change a specific study habit, or try a new one? Please describe.	
1.	
2.	
3.	
Note: If you are <i>very happy</i> with your grade, then feel free not to answer these questions. However, it could be that you still think there are areas you could have answered more clearly, more quickly, and so on. Answer the questions in that spirit.	

Instructions for Redoing (parts of) an Exam

Because the evidence suggests that students learn at different rates and that they engage differently with diverse metacognitive tasks, I ask that you consider the opportunity to re-do and reflect on your midterm as an opportunity for learning. I want you to be able to *learn the ideas* not worry about *failing a course*.

To get credit for re-doing either a part of or the full exam, you need to do the following:

- Re-do the question or questions where you performed the worst in the exam (if you performed very poorly as far as you're concerned, then please consider re-doing the full exam).
 - Be sure to take your time to find an answer you believe is correct.
 - Once you have made *your own attempt* at an answer, check your answer with a classmate you trust (if you do not have such a classmate, come and chat to me and we will find you a classmate – you need to have allies and study buddies in this course).
- Write a brief reflection on the following:
 - Where you went wrong in your original answer(s)
 - What your *misconception* or *lack of understanding* was when trying the question the first time
 - What you corrected in your new attempt at the question
- If you had a general problem with *time management* during the exam, then you need to write a reflection on how you think you can *prioritize tasks* in your next exam and how you *ought to have prioritized tasks* in this exam.
- If you do all of the above, you will have an opportunity to obtain an average grade for this exam. This is up to you and the effort you expend to answer these questions and to engage genuinely with the *metacognitive process* of reflection on your answers and on your learning.
- **Email me with the deadline by which you will hand in your exam re-do. This can be no later than [DATE].**

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Notes to self:

To explore for adding notes (have read McCloskey a lot, need to see if I can get the book from the library):

McCloskey, D. 1993. Storytelling in economics. In *Narrative in culture: Uses of storytelling in the sciences, philosophy, and literature*, ed. C. Nash, 5-22. London: Routledge.

McDrury, J., and M. Alterio. 2003. *Learning through storytelling in higher education: Using reflection and experience to improve learning*. London: Kogan Publishers.

It is also hard to pass off reflective writing such that your work is like someone else's: someone would need to be privy to important private information to write your reflective essay.

Growth mindsets—

Both for the exam task and for the course stories.

