

# Making Economic Principles Personal: Student Journals and Reflection Papers

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*Abstract:* The authors address two informal writing assignments implemented in introductory economics classes. One assignment involves students writing short reflection papers, and the other assignment involves students writing short journal entries for a designated period of time. Both assignments are designed to help students realize that economics is directly pertinent to their daily lives. Pedagogical issues related to both the benefits to students and the benefits and costs to faculty who implement the assignments are discussed. These assignments can provide beneficial insights to newer faculty members, who are adjusting to university and local community life, and contribute to developing new course material of perceived relevance to students.

Key words: journals, principles, teaching, writing

JEL codes: A11, A22

Faculty members teaching economics regularly face challenges to communicate effectively the relevance of course material to the lives and experiences of students. From comparative advantage to price elasticity of demand to the inflation rate, students often fail to connect that the concepts they are studying have anything to do with their own day-to-day lives.

Personal experience has revealed that all too many students desire to follow the path of least resistance. A recently retired colleague has observed that increasingly education is a commodity people pay for but which they do not really want. (Consider how happy students appear when a class is cancelled.) When a course is perceived as difficult, some students may become frustrated with the course and critical of its instructor. Students also may become critical when they fail to perceive a direct relevance between course content and either their present life or intended career path. This frustration tends to be most evident in required introductory level courses primarily taken by noneconomics majors. Faculty may be able to increase their effectiveness when teaching introductory economics courses by finding creative ways to help students both learn the necessary course content and recognize why the content is important beyond the four walls of the classroom. In other words, the more faculty guide

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students to consider how content relates to the real world, the more students may value course content.

As more and more is written about pedagogy, faculty can select from an array of ideas for implementing writing across the curriculum initiatives, active-learning techniques, service-learning activities, research-based learning opportunities, and so forth. Deciding where to begin can be an overwhelming task, especially for newer faculty. In the midst of juggling normal teaching, research, university service, and personal demands on their time, newer faculty frequently are engaged in preparing new course(s), learning the nuances of the student advisement process, adjusting to a new university campus culture that may be markedly different from the environment of their own undergraduate and graduate institutions, and adjusting to a new community that also may be markedly different from their previous experiences.

We developed and implemented two writing assignments in our first year as new assistant professors: student journals and reflection papers. We found these assignments to be beneficial in a number of ways. Our main purposes in this article are to describe (1) the use of student journals and reflection papers in principles of economics courses, (2) the benefits for students, and (3) the benefits and costs of using these assignments for instructors. We specifically address the beneficial insights of implementing these assignments for newer faculty.

## **JOURNAL AND REFLECTION PAPER ASSIGNMENTS**

A growing cross-disciplinary literature is devoted to the use of student journals in the college classroom. Ferrario (1999) argued that all faculty can use journals to help students learn discipline-specific concepts as part of writing across the curriculum initiatives. The use of writing has been shown to help students process and “understand better what they know, don’t know, want to know—and how it all relates to them” (Fulwiler 1987, 13). Shulman, McCormack, Luechauer, and Shulman (1993) cited literature on empowerment and argued that student journals can be used to engage the student in the learning process.

As students take cognitive steps beyond merely memorizing economic definitions and concepts for exam purposes, they are taking steps toward actually viewing the world through the lenses of an economist. As a result, they ought to appreciate better how course content pertains to their subsequent classes, future careers, and daily lives. We found that integrating open-ended journal assignments and reflection papers in our principles of economics classes was an effective tool to breathe life into our class dynamics and to foster the development of higher-level thinking and analytical skills.

Students enter our introductory economics classes generally having experiential knowledge of economic concepts but limited formal training. Economics is not a required course in our state’s high school curriculum. Furthermore, although the state recently has adopted a version of the National Council on Economic Education’s Voluntary National Content Standards in Economics for grades K-12, economics is not currently included in statewide proficiency testing.

We believe that one of our pedagogical roles is to facilitate students in connecting their existing understanding and experiences to the structured economic theory. Like other economics faculty members, we ideally want our students to begin to “think like an economist” as they go about their daily lives (Siegfried 1998, 60). One way to help students build a bridge between the theoretical concepts and personalized, real-life applications of that theory is through student writing.

When students write about economics, they must think more critically about economics (Petr 1998). As Crowe and Youga (1986) argued, writing forces students out of a role of being passive receivers of information and into an active learning role. To successfully complete the assignments, students must take an active role in formulating critical links between classroom discussions of economic theory and their own daily lives. Thus, students implicitly gain personal ownership of economic ideas as they informally write to learn (Connolly 1989). Students must do more than consult a textbook or instructor for the correct answer to a particular problem. Rather, students demonstrate understanding of the course content by illustrating the theory with interesting applications they personally have witnessed.

## **Rationale**

The rationale for using the journal and reflection paper writing assignments in our introductory classes revolves around providing students with a solid foundation in economics. We want students to relate economics to their daily lives, learn the language of economics, begin developing an economic intuition, and learn the requisite tools of the trade for use in advanced courses. We believe we have successfully assisted students to evaluate better and clarify their own understanding through the process of writing.

*Reflection papers:* When students perceive a lack of relevancy, their attitudes are all too frequently, “Who cares?” Hence, we developed the reflection paper in our introductory macroeconomics classes in response to observations that students often do not perceive that core concepts such as GDP (gross domestic product), inflation, and unemployment rates are personally relevant. We are convinced that all of our students are affected by these concepts in direct and indirect ways every day. However, many students fail to immediately comprehend our enthusiasm regarding these topics. Unless some students connect a topic to their own experiences, they may never gain an appreciation for why they are being asked to learn more about that topic. Deeper learning takes place when students reflect on their own experiences rather than memorizing the reflections of an instructor or textbook author (Powell and López 1989).

For the reflection paper, students write a paper, ranging in length from one paragraph to one page, in which they explain how one or more of the major concepts in the recent course material relate to their lives. A simple summary of chapter text is unacceptable to receive credit for the assignment. There is no single correct answer. Rather, students are expected to think of at least one way the material from their class notes is personally meaningful to them. If students are

stymied, they are encouraged to read through the corresponding chapter for inspiration and to talk with the instructor. The actual assignment details are included in Appendix A. The following are three samples of student writing:

Every two years my parents buy a new car from General Motors in the price range from twenty to thirty thousand dollars. This is where GDP comes in; when they buy the car it adds to the consumption (C) section of the equation and increases the income for the United States government. In the meantime, they sell their car to someone in the paper for some percent of what they paid for it. This however, does not count for the GDP, because the car was already owned once the price that was paid already added to the GDP and therefore does not now.

Calculating the “basket cost” of my bills and such, I realized that I was due for a raise! Armed with this information and the fact that gas prices are sky high and I drive over an hour to get to work, just so they don’t have to fuss with training a new bartender, I asked for a raise! Well, I got a \$.50/hour raise, which helps out and it was all due to the ideas of chapter 11.

Unemployment is the one aspect of our economy that has affected me directly. During the mid-80s my mother and father were both employed at a steel mill in a little town called Natrona Heights [Pennsylvania]. After working for a combined 23 years they were both laid off on the same day. Just a week after that we were all living with my grandmother and my grandfather. I remember this time of my life very clearly because I was forced to share the same room with my three brothers.

*Journals:* The student journals are implemented as an extra-credit writing exercise. The process of keeping a journal is an effective tool to reveal to students the prevalence of economic concepts within their day-to-day experiences. Journaling encourages students “to become observers and recorders of economic events and issues” (Crowe and Youga 1986, 221). The nature of the assignment forces students to look at the events of their day more critically and to apply what they have learned in the classroom. Through the assignment, students begin seeing the world through the eyes of an economist, building their own economic intuition, and solidifying their grasp of the course material.

Our journal assignment requires students to record one entry per day for approximately one week. The entry must relate some occurrence within a student’s daily experiences to an economic concept. An acceptable journal entry includes a brief description of the event and how it relates to the economic principle in question. The actual assignment details are included in Appendix B. We provide three examples of student journal entries.

(November 19, 1999) Today I had to go to the store for a package of new socks. I was expecting them to cost around \$8.00, but they only cost \$5.08. This is a consumer surplus, because I was willing to pay \$8.00, but I only had to pay \$5.08.

(November 28, 1999) Today I spent the day at the hospital because my boyfriend was having surgery done. I noticed that because it was snowing, people’s preference for a hot beverage increased. More people wanted coffee or a hot beverage instead of lemonade or soda. So, I thought this through. If the demand for coffee or hot beverages increases, there would be an increase in the price and quantity of the hot beverages. I asked the worker at the coffee shop how much coffee was in the summer. She said for a small it was \$.69. But now

it is \$.96. She also explained to me that people don't buy coffee as much as they do if it is cold outside. And I told her that the answer she gave me was the one I was looking for.

(April 18, 2000) Today I went to my first tanning appointment. As I was waiting to go in the bed, I was wondering what kind of category it would be listed under in our market structure chart. I know there are many places to go tanning just in Indiana, and they are all small firms, but I'm having trouble deciding if it's a perfect competition or a monopolistic competition. I'm leaning more toward perfect competition because the nature of the product is the same.

In some semesters, this extra-credit assignment is offered twice. It is given near the beginning of the semester after the basics of scarcity, tradeoffs, and opportunity costs have been covered in class. This helps emphasize the relevance of economics to a student's life early in the semester and affords students the opportunity to begin using the language of economics. Then, the journal assignment is offered a second time near the end of the semester after we have taught the majority of the course material. One objective of using both the first and second journal assignments is to demonstrate to students that they really have learned some useful economic principles during the semester. Students notice that the breadth of topics for which they can make applications has expanded significantly as they complete the second assignment.

*Avoiding burnout:* We intentionally structure the reflection papers and journals not to be overly burdensome for students. We want the assignment to be relatively short and enjoyable. Our desire is for students to be motivated to complete the assignments and even transfer that motivation to other course work. If students reach a point of viewing the assignment as busywork or a burdensome have-to-task in their already full lives, then motivational and learning objectives are compromised (Reynolds 1997, 84).

Students are assigned approximately six reflection papers across a 15-week semester. An assignment is made at the conclusion of each macroeconomic textbook chapter. Thus, the reflection papers are spread out and focused on recent material. Students are given approximately one week to hand in their reflection papers after the assignment is made.

The journal assignments involve only a 6- to 10-day period of time. We firmly believe that there are diminishing returns to the effectiveness of an assignment such as this. Thus, this time period is long enough to provide consistency in their cognitive thought patterns while being short enough to minimize burnout.

## **Learning Objectives**

*The language of economics:* We believe that the journals and reflection papers help equip our students with any number of useful, long-lasting skills and abilities. No matter how we may wish differently, reality is that within a few months to years, our introductory students will not recall all of the myriad economic graphs, definitions, and theory that we present to them. Walstad and Allgood

(1999) reported that seniors who minimally had had principles of economics could later correctly answer only 41 percent of the economics questions on the Major Field Test in Business II exam in 1998. Nevertheless, we believe that the more students engage the material to make it their own, the more of it they will retain and for longer into the future.

As one of 15 theses on classroom teaching, Elzinga (2001, 254) suggested that it is important for students to “own (or at a minimum, lease) the jargon of the discipline.” We already have discussed how our assignments engage students in the use of economic jargon in an individually meaningful context of the real world in which they live. They are not simply regurgitating definitions.

*Creative expression:* Instructors who teach principles of economics courses face the temptation to try to communicate too much terminology and theory given the time constraints of an average semester. The attempt to cover so much material also leaves little room for individual creativity or choice in the average introductory economics classroom.

Rademacher et al. (1998) discussed incorporation of instructional opportunities for active learning through student choice. They cited various studies and claimed that classroom assignments that allowed choice enhanced student motivation.

Bartlett and Feiner (1992) maintained that economic education typically presents more material relating to experiences of white men than of other economic groups. They encouraged a “re-visioned” curriculum that has a “multicultural perspective on content” and makes “consistent efforts to connect with the real world” (Bartlett and Feiner 1992, 562).

Our journals and reflection papers allow students to come alive creatively in the economics classroom. By design, both assignments guide students to write about examples they have chosen. The entire experience becomes more personal for them because they are given an outlet for their creativity and an opportunity to develop individually meaningful examples. International business majors can begin to identify the role of economics in their discipline; fashion merchandising majors simultaneously can see economics at work in their field. The international student from Bangladesh and the American student simultaneously can identify economics at work in their own home countries. Male and female students simultaneously can apply economics based on their own interests.

*Written communication skills and higher-level thinking:* The importance of writing is underscored by the fact that virtually every job and graduate school application inquires about written communication skills and the Graduate Record Exam has been reformatted recently to include a writing sample. The process of writing forces clarification (McKeachie 1999). Field, Wachter, and Cantanese (1985) asserted that having students explain their economic understanding in writing in situations other than a final exam encourages students to organize their thoughts and reexamine their prior beliefs. The very fact that the journal and reflection papers are writing assignments helps develop certain skills in the students.

Attention to learning and assessment has been a topic of increasing focus in the economic education literature. Instructors are encouraged to develop pedagogical

tools that go beyond traditional “chalk and talk” lecture formats (Becker and Watts 1996). Furthermore, Hansen (2001, 232) asserted that, “Requiring students to answer a battery of largely single-dimensional, multiple-choice questions, as occurs in most principles courses and also many advanced courses, neither challenges students to begin thinking like economists nor builds their ability to use what they are learning.”

Learning-process writing emphasizes the process more than the product as students write “to help themselves learn” (Crowe and Youga 1986, 221). When credit is earned by participation, as in our assignments, students focus on their own self-evaluation of their understanding of economics rather than primarily on grading (Petr 1998). In addition, when students use writing to learn economic concepts themselves, they are simultaneously learning to communicate through writing.

We believe that the journals and reflection papers also help train our students to use higher-level thinking skills. Analyzing the assignments in the context of Bloom’s Taxonomy (Saunders 1998), they must have adequate *knowledge* of basic course content to satisfactorily complete the assignments, but they must do more. The creativity encouraged by this writing embodies *synthesis* and the process by which students distinguish between different instances of economic decisionmaking. Writing facilitates *analysis* as students discover relationships between economic ideas and their own experiences (Sternglass 1997). Finally, because the students take the course content outside the classroom and relate it to their own personal lives and experiences, they engage in *application*.

Hansen advanced a proficiencies approach to economics instruction in the mid-1980s, and he subsequently revised it (Hansen 2001). According to Hansen, introductory courses should emphasize lower-level proficiencies including accessing existing knowledge, displaying command of existing knowledge, and interpreting existing knowledge. The reflection paper and journal assignments are one means of guiding students to achieve these three proficiencies.

## STUDENT REACTION

We have continued to modify these assignments along with many other aspects of our courses each semester. Hence, we cannot provide conclusive pre- and postsurvey results of student attitudes about the effectiveness of these assignments. Nevertheless, we have received positive feedback from students in various forms.

The reflection papers seem to be successful, based on the quality of the work submitted. Students’ reactions confirm this assertion. In fact, as part of student course evaluation written comments, a large number of the macroeconomics students applauded the assignment and identified it as one of the strengths of the course. The following are a sampling of the affirmative comments made by students:

I think that my favorite homework assignment we had were the reflections. I liked the reflections because it allowed us to see how the information that we learned in class affect our daily lives. You don’t realize how much economics plays a part in your life until you are faced with having to think about it.

By doing the chapter reflections, I felt that forced me in a way to review the chapter because I couldn't write a reflection on the chapter unless I knew what it was about. So, I see how beneficial it was to do the reflections.

One thing that I enjoyed doing in this class was the reflection papers. I think it's a good way to learn what we were being taught by trying to relate it to our lives. It made it easier to also study for tests because you could think back to when you wrote your reflection and remember what one thing meant.

As with the reflection papers, student responses to the journal assignments have been positive. It seems they are amazed at the abundance of ways in which economics does enter their daily lives. Students commented that they especially enjoyed recognizing that they have the ability to converse with parents and others about economic concepts in a more intelligent manner. In addition, students recognized a change in their mental perceptions of various situations as economics became more deeply rooted in their analyses. Two journal entries affirm the assignment itself.

(November 19, 1999) This might [have] been one of the weirdest days of my life. My dad really surprised me on this day. As I stood in the kitchen after dinner I was talking to my dad. I was telling him about this project I had to do for this class. He said that it seemed very interesting and asked what I had to do. I told him about some of the topics I could cover and had to relate them to everyday life. Then all of a sudden we got into a supply and demand discussion. He works for Duquesne Light and was telling me what he thought and noticed. He said that it differs during times of year for electricity. At different times supply might be up and demand is down and sometimes supply might be down and demand is up. He said the worst time is around holidays.

(November 29, 1999) I cannot believe that this is my final day of my journal. I really never thought that reading about economic issues could be so interesting. I have really learned a lot about economics through reading about them through the newspaper. I found out economics is really not that bad....

## **BENEFITS (AND COSTS) FOR INSTRUCTORS**

### **Benefits: Correcting False Assumptions**

Beyond the skills our students acquire by completing the journals and reflection papers, we have found the assignments to be tremendously beneficial to our performance as new assistant professors over the last four and half years. Reading these assignments provides a new glimpse into the student world. We gain a keener understanding of their perspectives and where they are coming from without asking deep, dark, personal questions.

Newer teachers are prone to making false assumptions about their students. New faculty must come to terms with the fact that it is very likely the majority of their students are not going to behave as they themselves did academically. This perceived difference between how a faculty member may have performed at the undergraduate and graduate levels and the performance of the average student is clearly a function of the academic standards of the institutions where the faculty member earned his or her degrees and where the faculty member currently is teaching.

Faculty members at a new institution may make other false assumptions. Potential areas of differences include whether students have poorly developed note-taking and study skills, how hard students can be pushed before risking outright rebellion, how many students commute, and how many students are of non-traditional age. By reading what our students have written, we have learned that at our present institution, far more students have part-time or full-time jobs than our previous experiences suggested. We now recognize that when some of our students are not performing as well as we would hope, the reason may be attributable to the time constraints they face. We have learned that a fair number of our students have parents or extended family who worked in the failing coal and steel industries. The implication for us has been to refine our discussions of international trade and trade barriers. We have learned that many of our first-generation college students deal with family expectations that they should remain in the area after graduation despite better job opportunities elsewhere. We have responded by intentionally increasing discussion of future job and graduate school opportunities both in the classroom and in advising situations.

In addition, cultural geographic differences may precipitate a false set of assumptions. Examples could include differences in expectations related to the prevalent religious and political beliefs in an area. One of our favorite examples comes from firsthand experience when we moved to western Pennsylvania from other regions of the country. It turns out that because many public schools, businesses, and community services in the area are closed on the first day of buck (deer)-hunting season, our class attendance also may drop significantly that day. Students perceive this as a very legitimate reason for missing class. We both were shocked at first because neither of us had ever witnessed this particular phenomenon.

### **Benefits: Creating Fresh Examples**

Elzinga (2001) advised faculty to keep systematic files of teaching ideas to draw on when revising lectures. Related to this topic, another of his teaching theses was “good lectures need stories” that are fresh (p. 252). In the process of reading the journals and reflection papers, we also become better equipped to generate up-to-date examples that reflect the popular culture of this generation of students, who embody different attitudes and practices than our own.

This creativity and personalization enables us to help combat the age-old complaint that economics is a boring, dismal science. Examples include more insightful discussions about unemployment as it directly relates regionally to the decline of the coal and steel industries and that a meaningful example of the free-rider problem is a roommate who never seems to have enough money to pay his or her share of the monthly cable bill. This opportunity to discover examples that are clearly relevant to students’ lives is important for both new faculty who have taught a particular course only a few times, if ever, and for faculty whose teaching experience spans the entire lifetime of their current students. In addition to fresh, popular culture references, students sometimes provide examples based on their gender and ethnic background. As a result, faculty can incorporate new

explanations reflecting diversified multicultural and gender perspectives as encouraged by Bartlett and Feiner (1992).

### **Benefits: Learning Enhancement**

From the perspective of student learning, students must think about the course content applications outside of class when completing these assignments. Ideally, they are motivated subsequently to participate and contribute more in the classroom environment. Our experience has been that many of our undergraduate students do not complete suggested reading assignments with any regularity. These same students are often reticent to volunteer in classroom discussion. Nevertheless, as students work on these short, relatively fun writing assignments, they are thinking critically about economics and have more motivation to read parts of the textbook to clarify their rationale. We find that increased classroom participation is a positive spillover for some students following these assignments. Observing a greater excitement about learning among students certainly makes the teaching experience more enjoyable.

In addition, we derive an opportunity to see the “footprints” of a student’s mind at work as we read the assignments (Petr 1998, 230). We see a trail of their mental thought processing and can determine better at what point their own analysis has led them to misunderstanding. Hence, the assignments can serve as both a learning tool and a diagnostic tool.

In a broader context, we believe these writing assignments contribute positively to the economic literacy of other individuals who are not our direct students. Some students report how they find themselves engaging in conversations about economic topics with family and friends as they complete the assignments. In the process, their confidence increases as they discover that they do have something meaningful to contribute to what they previously viewed as boring adult conversation. Thus, we believe these assignments enhance students’ economic education in a very real way, with possible additional positive spillovers for the economic literacy of others.

### **Benefits: Personal Gains**

We believe these types of assignments also may benefit us during the tenure and promotion process. Clearly, like ourselves, the typical tenure-track faculty member hopes to be tenured and promoted at his or her institution. Seldin, Annis, and Zubizarreta (1995) noted the importance of the student-learning section in the teaching portfolio and stressed that a connection between good teaching and good student learning must be established. They cited student writing and other projects as appropriate evidence of the influence of good teaching on students’ progress. Moreover, they attributed the apparent emphasis on research in tenure and promotion decisions to the lack of solid, factual evidence on teaching presented by professors. Samples of student writing, such as journal entries and reflection paper excerpts, represent tangible examples of teaching effectiveness that can be included in a teaching portfolio for the tenure and promotion process.

Finally, unlike other standard homework problems we use, most of these assignments are truly enjoyable to read. Some of the student responses and insights have been completely unexpected. For example, we were surprised to learn that students living in off-campus housing sometimes come to campus to steal toilet paper for their apartments.

### **Costs: Grading and Other Issues**

Elzinga's (2001) teaching theses included the notion that good teaching is hard and is a function of instructor time and diligence. He referred to "sweat equity," whereby the perspiration comes from course preparation (p. 257). From the perspective of being a new faculty member, the costs of developing and grading new assignments are of particular concern in the midst of preparing new courses, moving forward with a research agenda, and getting involved in university service. It is unquestionable that faculty members at different colleges and universities face varied constraints based on course load and class size in a given semester.

To place the assignments in the context of our principles courses, graded assessments include short quizzes, 5 to 15 homework/in-class assignments, and three exams. Exams include a mixture of multiple-choice and written-response questions.

Although these are writing assignments that must be read, they do not have to be terribly time-consuming to grade. As a result, they can be suitable for both large and small class sections. We use the journals and reflection papers with as many as 100 economic principles students in a given semester with little difficulty. Because the assignments can be classified as informal, learning-process writing, a faculty member may legitimately choose not to correct grammatical and spelling errors in order to reduce grading costs. The writing can be "holistically" graded such that the majority of credit is awarded for completing the assignment with slightly more credit being given for greater creativity or more varied applications or examples. The amount of correcting of theoretical concepts can vary from a general careful notation to more detailed written comments, depending on the time constraints faced by the grader. When the assignments are returned, we like to share good examples and discuss any common theoretical errors as additional feedback to students.

The journals are assigned as an extra-credit exercise generally worth 8 points, and the final course average is calculated based on approximately 450 available points. This assignment can affect a borderline letter grade. We encourage creating a grading rubric, particularly if someone other than the faculty member grades the assignment. For example, here is a rubric based on 8 total extra-credit points: (1) journal entry per day of appropriate relevance (1 point/day over six days = 6 points), (2) professional appearance/organization (1 point), and (3) overall creativity/originality (1 point). We experience a participation rate between 50 and 70 percent of our final class rosters by giving the assignment as an extra-credit opportunity. Students earn an average of 89 percent of the available points for the exercise.

The reflection papers are not an optional assignment. They count as approximately one-half of the homework and in-class assignments. They are graded on a

check-minus, check, and check-plus basis. Turning the paper in earns the check minus, as long as the paper is not merely a summary of the chapter. Creativity and evident effort garner additional credit. A mere summary of the chapter earns zero credit. A simple grading rubric also can be created for the reflection papers. Homework and in-class assignments collectively count for 15 percent of the final course grade. Naturally, some students express resistance to the assignments by not completing them. However, there is no evidence of a greater proportion of students not completing the reflection papers relative to other homework and in-class assignments.

For extremely large classes, the assignments could be modified. One option is to divide the class into groups. Then groups could be assigned different chapters and different due dates to reduce the amount of grading both overall and at any single point in time.

For the instructor, an obvious opportunity cost of implementing these assignments is other problem sets. We have begun emphasizing application of course content as a course objective along with knowledge of specific topics and problem-solving skills. Hence, use of these assignments in conjunction with some traditional problem sets helps students attain our stated course objectives. We sometimes have used journal and reflection paper excerpts as the stems for exam questions that ask students to explain how the quoted scenario relates to economic theory as a further link between the assignments and exam assessment.

For instructors who currently are not implementing student writing, these assignments may offer a starting place with manageable increases in grading costs. For faculty who are interested in altering the type of student writing they require, these assignments may offer alternatives with little or no increase in grading costs.

### **MODIFYING JOURNALS AND REFLECTION PAPERS FOR OTHER COURSES**

There are numerous ways in which the journals and reflection papers can be extended to different introductory and advanced courses. Most obvious, the assignment could have a narrower focus. For instance, a journal integrated in public finance or international trade courses should focus on the application of content from that respective field. In some contexts, it may be preferable to require fewer entries during a given week and extend the assignment over a longer period of time. Furthermore, a more precise use of the jargon could be expected from students in upper-level courses.

The assignments can be modified to reach higher rungs on the Bloom's Taxonomy ladder, as well. Students in an econometrics class, for example, could collect journal articles pertaining to a given topic and critique them in a journal format. Alternatively, they could write a reflection paper evaluating the application of an estimation technique to different types of data. This would foster a deeper analysis and engage the student in *evaluation*. In terms of the Hansen (2001) proficiencies, such an assignment potentially would accomplish both interpreting and manipulating economic data, as well as applying existing knowledge.

We combine the journal and reflection paper assignments into a single mandatory assignment for an honors section of a principles of macroeconomics course. Our honors students encounter journals in numerous other classes, so they are accepting of the assignment. Students are asked to write one 1–2-page reflection paper for each chapter. Each paper is to be titled, and a running table of contents is to be maintained. The journal is collected and graded periodically during the semester.

As an additional variation, we assign a news journal in some of our advanced economics courses. Students collect two or three articles related directly to the course per week for a designated period of time. Students then organize the articles according to a classification system of their own design. Finally, students write a paper on a topic for which they collect at least three articles. They summarize the articles, explain how they are related to the chosen classification heading, and synthesize any relationships or trends they can identify among the articles. This type of exercise may be described as an economic issues notebook (Petr 1998).

## CONCLUSION

Instructors have been and will continue to be encouraged to pursue writing in the classroom as part of the nationwide writing-across-the-curriculum initiative (Maimon 1982). We believe our journal and reflection paper assignments can be incorporated practically in various course settings as part of an overall strategy to implement both informal and formal student writing. Our positive experiences with these assignments from both a pedagogical-learning and student-response perspective convince us that these assignments are a valuable addition to our classroom instruction.

Furthermore, although our personal use of student journals has been as newer faculty, we believe faculty members of all levels of experience can learn valuable insights from their students by incorporating similar assignments into their courses. New faculty may bring with them unrealistic expectations or assumptions about their students, and they must adjust to both a new campus and a new community culture. This is true both for new assistant professors hired straight out of graduate school, as well as experienced faculty who move to a new college or university. Experienced faculty who have been teaching at the same institution for a number of years also can benefit from periodically updating themselves on the environment in which their current students are living and current popular culture references. All faculty can use journal and reflection paper assignments to periodically update their information sets and classroom examples.

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## APPENDIX A: PRINCIPLES OF MACROECONOMICS

### MACRO REFLECTION PAPER ASSIGNMENT

#### Introduction

It is often difficult for undergraduate students to see how macroeconomic concepts like GDP, unemployment, and saving pertain to their lives. These topics often seem remote and foreign even though they are very relevant. It is the objective of this assignment to foster an understanding of how the material in Chapters 10 through 20 of the textbook relates to your life. In turn, your grasp of the course material should be deepened and strengthened.

#### Assignment

Write a paper ranging in length from *one paragraph to one page* explaining how one or more of the major concepts in the just-completed macroeconomics textbook chapter

relates to your life. There are really no wrong answers. However, a summary of the chapter is not acceptable. You are simply expected to reflect on the material from the chapter and determine the way(s) in which it is meaningful to you either for the past, present, or future. You will complete one reflection paper for each of the macroeconomics chapters in the textbook over the remainder of the semester.

Due dates will be announced in class as the appropriate chapters are completed. You will be graded on the originality and insightfulness of your work and not the quantity.

Although you are not required to type this assignment, please submit only legible handwritten work. Please *remove spiral edges* from spiral paper if you use it.

## APPENDIX B: PRINCIPLES OF MICROECONOMICS

### EXTRA CREDIT: DAILY JOURNAL ASSIGNMENT

**PURPOSE:** The purpose of this assignment is for you relate real-world experiences to the topics covered in economics. Often, students find that moving from the structured and theoretical world of the classroom and textbooks to developing economic intuition and applying what you have learned in your day-to-day life is not as easy as it might sound. Hence, this assignment should encourage you to think more critically about economics in your daily life so that, with time, this kind of thinking will become more natural. At this point in your academic career, you have begun learning the language of economics and have had some exposure to basic microeconomic principles by taking this course. (You may or may not have taken other economics courses, as well.) With that in mind, you should be beginning to view the world through the lenses of an economist.

**ASSIGNMENT:** Beginning today (Thursday, February 22), record one journal entry per day through Wednesday, February 28. The entry should relate some occurrence in your day-to-day experiences to some economic concept. The occurrence may be a conversation with a friend, an observation to yourself or of others as you walk to class, a song on the radio, a scene from your favorite television show, or an article in *The Penn*.

A student in a previous semester wrote the following entry, "Today I spent the day at the hospital because my boyfriend was having surgery done. I noticed that because it was snowing, people's preference for a hot beverage increased. More people wanted coffee or a hot beverage instead of lemonade or soda. So, I thought this through. If the demand for coffee or hot beverages increases, there would be an increase in the price and quantity of the hot beverages. I asked the worker at the coffee shop how much coffee was in the summer. She said for a small that it was \$0.69. But now it is \$0.96. She explained to me that people don't buy coffee as much as they do if it is cold outside. And I told her that the answer she gave me was the one I was looking for."

Your journal entries may be typed or handwritten. However, if you choose to record your entries by hand, your handwriting must be legible. Each entry should be clearly dated, and entries should be organized in a chronological manner. Your journals should be stapled or assembled in a folder. You should include a cover page for your journal. The overall appearance of the journal should be neat and professional. The journal is worth up to 8 extra-credit points to be added to your accumulated earned points for the semester.

**DUE DATE:** Thursday, March 1 (by the end of class).

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