

MINI ECONOMIC QUESTIONS, BIG IMPACTS: LEVERAGING SHORT INQUIRY PROJECTS TO ENHANCE ECONOMIC LITERACY IN INTRODUCTORY MICROECONOMICS

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Abstract

This paper discusses the implementation and effectiveness of the Mini Economic Question (MEQ) project, a semester-long assignment used in introductory microeconomics to enhance economic literacy. Students identify economic questions grounded in real-world observations and work in teams to explain observed phenomena using core microeconomic concepts and models. This pedagogical approach promotes economic thinking by enabling students to apply their learning to various life situations. Students report positive learning outcomes from the MEQ project, including significant gains in using economic thinking to analyze everyday issues. The paper outlines key benefits and impacts for students and addresses potential challenges for instructors implementing this learning activity. A quick guide is provided for instructors.

Key Words: economic literacy, project, teamwork, principles of microeconomics, learning.

JEL: A20, A22.

Introduction

The question of what students learn from principles of economics courses is important for achieving economic literacy. Previous research suggests that students in introductory economics courses are exposed to too many learning materials, and that to help learners achieve significant learning, the learning objectives and the content of introductory economics courses should be reduced (Salemi 2005; Stigler 1963). In general, students learn concepts, models, and policy ideas, but do not necessarily achieve economic literacy as they forget this learning a few years later. Empirical studies published on this topic found, in general, no effects or only small lasting effects (Bach and Saunders 1965; Lynch 1990).

Economic literacy is concerned with the knowledge of key concepts and principles and the application of economic thinking to real-world problems. When delivered effectively, economics courses help broaden the views of students by relating their learning to real-life activities. Yet, fewer college students take economics courses. For example, 74% of students who began college in 2012 never took any economics courses (Stock 2023). In this paper, I argue that by applying economic thinking using short self-generated economic questions in an introductory microeconomics course, students improve their economic literacy through practice.

This paper documents a short semester-long application research assignment called “*Mini Economic Question*” Project, or MEQ Project, in a college-level introductory microeconomics course as a learning strategy to promote economic literacy among students. A quick start guide in

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Appendix 1 summarizes key suggested guidelines for instructors interested in implementing a similar project in their own courses. The assignment includes both individual and team-based components. The core principle of the assignment is that students use their observation of the real world to identify a microeconomic question that they then work in groups to address by synthesizing, integrating, and applying the content usually covered in principles of microeconomics courses. This project is consistent with the idea of “Big Think” questions, which encourage argumentation, assumption evaluation, and connection-making (Colander and McGoldrick 2009; McGoldrick and Garnett 2013).

With this learning activity, students explain the phenomenon of interest in their question by using concepts, principles, and models traditionally taught in a principles of economics course. By requiring students to focus on three to four core concepts or models, this project aligns with the suggestion that their first economics course should provide students with a self-contained opportunity to gain a deeper understanding and working knowledge of a short list of economic concepts (Hansen, Salemi, and Siegfried 2002). This assignment differs from other assessments typically used in principles of economics. In general, the most common grading items are exams, quizzes, and homework assignments. These items often rely on single-dimensional and multiple-choice questions that “*neither challenge students to begin thinking like economists nor build their ability to use what they are learning*” (Hansen 2001, p.232). In 2010, a survey of a national sample of economics instructors suggested that examinations accounted for the majority of student grades in the introductory course, with a median of 71% (Walstad and Miller 2016). One distinctive feature of the Mini Economic Question project is students’ strong involvement in choosing the questions they eventually research and answer. This student’s choice also promotes student agency and motivation.

With this project, students can develop economic literacy through two requirements: deciding on a microeconomic question and applying economic thinking to address the question. First, in deciding on a microeconomic question, students experiment with making an individual choice by identifying their own research idea, ensuring that the question is relevant to microeconomics rather than macroeconomics. Then, they engage in bargaining and tradeoffs with their groupmates to decide on the research question that their group will address for the rest of the course period. Second, during the application of economic thinking to their research question, students have the opportunity to apply their economic knowledge, deepen their learning through peer instruction, and develop economic presentation skills. The research assignment also leads to other external benefits, such as better student motivation, development of interest in economics, and communication and research skills. One of the potential costs to students is the risk of being overwhelmed by the extent of such a project in an introductory-level course. Instructors who are interested in implementing similar economic literacy assignments in their classrooms can consequently reduce the scope of content covered (Salemi 2005) and limit other types of summative assessments (Stigler 1963). The MEQ project goes beyond other similar learning activities like the economist naturalist assignment (Frank 2006) by leveraging the power of collaborative learning, engaging students in integration and higher-order thinking, choosing challenging and thought-provoking questions, and using alternative forms of media as their deliverables.

Data collected from course evaluations, critical reflections, and student surveys provide supportive evidence on the effectiveness and impacts of the MEQ project. The assignment helps a large majority of students improve their ability to use economic thinking to analyze everyday problems, thus promoting economic literacy. The rest of the paper is organized as follows. The

first section provides a background on economic literacy. The second section describes the MEQ project and the context of its implementation in the course. The final section discusses the benefits and costs of the project by using data and feedback collected from students on the effectiveness of this learning activity.

An Overview of Economic Literacy

What Economic Literacy Is and Why It Matters

There are alternative ways of defining economic literacy. At the core, economic literacy encompasses both the knowledge of concepts and skills in economics as well as the ability to apply this learning in various contexts. Students achieve economic literacy by thinking like economists. As Stigler puts it, “*The authoritative definition of economic literacy is knowledge of the theories which are held by the professional economists*” (Stigler 1970, p.83).

Economic literacy is important to citizens individually and to society as a whole, to shape public opinions and political outcomes (Banaszak 1987; Walstad 1997; Yayar and Karaca 2017). The definition suggests a relationship between economic literacy and informed decision-making, both at the individual and societal levels. A panel analysis of 55 countries shows evidence of a positive relationship between the economic and financial competency of the individuals, their knowledge and skills, and their economic literacy (Jappelli 2010). Economically literate citizens are more likely to participate effectively in the political process and incorporate new economic knowledge into their existing knowledge (Banaszak 1987).

How to Achieve Economic Literacy

Economic literacy goes beyond understanding and knowledge of basic economic theories and concepts to include their application in a variety of contexts (Yasmin, Kouser, and Ahmad 2014). It becomes more important that economics instructors help students develop the tools and abilities to deal with life situations. Michael Salemi (2005), for example, proposes that the first college economics course goes beyond the high school one and involves greater challenges. One way for students to achieve economic literacy is to work with economic concepts in class every day, analyze policies, and construct and support arguments (Salemi 2005).

The “literacy targeted” (LT) approach to teaching principles of economics emphasizes students’ ability to apply a short list of core economic concepts throughout their lives rather than exposing them to a wider list of subjects they barely learn (Hansen, Salemi, and Siegfried 2002). By reducing the breadth of content, the LT approach devotes more time to student-centered and cognitive science teaching strategies (e.g., Goffe and Wolla 2024) that favor depth of learning and lead students to enjoy doing economics (Frank 2006). Moreover, the performance in intermediate economics courses of students who take an LT course is similar to that of students taking traditional principles courses (Gilleskie and Salemi 2012; Benjamin, Cohen, and Hamilton 2020).

More broadly, the goal of economic literacy is to acquaint learners with economic thinking and help them think like economists. Economic thinking refers to a system for making decisions about using scarce resources to satisfy unlimited wants (Banaszak 1987). Such decision-making relies on economic principles and models as well as logical reasoning. This approach is facilitated by the knowledge of economic concepts and generalizations.

While there are many standardized tests, including the test of economic literacy (Walstad, Rebeck, and Butters 2013), which aim to assess the economic literacy of learners, this paper

focuses more broadly on the ability to think like an economist. I argue in this paper that adding an application project to an introductory economics course in which students identify and answer a short economic question promotes economic literacy through the ability to do economics.

A Framework for Promoting Economic Literacy

The Mini Economic Question (MEQ) Project is implemented within an introductory microeconomics² course, along with other learning activities. It relies on a literacy-targeted approach to teaching principles of economics (Cohen 2024).

The context of the project

The project was implemented in an introduction to microeconomics course taught at a small engineering university in the Northeast of the United States. The course enrollment is capped at 60 students during the regular academic year and 25 students in the summer session. The course is usually delivered in person over 7 weeks. However, some sessions were offered online during the COVID-19 pandemic in 2020 and 2021. Students work typically in groups of 3 to 5 during the academic year or 2 to 3 in the summer session, depending on class size.

The MEQ project is part of the course requirements and is worth 20% of the course grade. The key idea is for the project weight to be significant enough for students to care, but not too substantial for those who might not enjoy the exercise. The other course requirements include assignments (30%), one or two examinations (40%), and participation (10%).

Assignments are designed to help deepen student understanding of the material covered in class or from the text. The number of examinations is limited to two to allow students enough time to work on the MEQ project. This idea is consistent with Stigler's suggestion to limit the number of summative assessments to focus on building economic literacy through applications (Stigler 1963). Participation encourages students to be active and engaged with the material every week. Participation is assessed through discussions, clicker-type responses, and in-class learning activities. Participation grades also include self and peer reviews on teamwork in the middle and at the end of the academic period to avoid free riding. The mid-term peer review is formative, while the final peer review is used to adjust students' grades when there is a significant discrepancy (e.g., at least 15%) between the average rating and the individual team member's ratings. For larger class sizes (above 60 students), the help of a Teaching Assistant may facilitate the implementation of the project. The MEQ Project is described in the following section.

Description of the MEQ Project

The goal of the project is to provide an opportunity for students to apply economic principles to a real-life economic question. The project includes both individual and team-based components. It asks students to individually identify an economic question grounded in their own observation of a "*real-world*" phenomenon. The requirement to use an observation from the real world as the basis of the question ensures that it relies on a positive statement in the economic sense. Then, students are required to answer in group one of their questions by explaining the

² This project can also be used in a principles of economics course where both microeconomic and macroeconomic concepts are covered. In that context, the project can be implemented over the period of the class when the course content focuses on microeconomics.

relevant phenomenon using economic concepts, principles, and models covered by the end of the course.

To simplify the assignment, students are encouraged to frame the topic of their research as a concrete question so they can later construct a logical answer to it. The following are examples provided to inspire students: (i) *Why does a mobile phone cost only \$49.99, while a separate battery for that same phone sells for \$59.99?* and (ii) *Why do so many restaurants offer free refills on beverages?*

Students are encouraged to be creative and reminded that the world is full of interesting phenomena that economics can help explain. For the submission, any medium can be used to convey findings, but going beyond a typical written essay is encouraged.

Scaffolding

The open-ended nature of the question can seem daunting for students in an introductory-level course. To help them navigate the project, the assignment is scaffolded into sequences through the following submissions with feedback provided using the learning management system (e.g., Canvas): individual research question, team economic question, key economic concepts and models, and final submission using alternative media.

Individual Economic Question: Even though the MEQ Project is ultimately implemented as a team-based assignment, the first installment is an individual assignment. This allows everyone to think about at least one potential research question by: (1) stating the economic question they would like to answer; (2) explaining why they are interested in this question, and (3) explaining why the question is a microeconomic one or how it involves behavior or decision-making by an individual economic entity.

This individual question formulation promotes student agency as it relates to the ability of students to make decisions that contribute to their learning, with motivation and self-efficacy (Bandura 1990; Vaughn 2020). Appendix 2 provides an example of an individual question submitted by a student.

Team Economic Question: Once students receive feedback from the instructor on their individual question, they meet with their groupmates to identify their team's topic. Teams are made of 3 to 5 students (Albanese and Mitchell 1993). Teams are assigned based on their time availability, seniority, and gender, when possible. I used the Comprehensive Assessment of Team Member Effectiveness (CATME), a platform that includes a "Team Maker," a peer evaluation, and teamwork support tools (Loughry, Ohland, and DeWayne Moore 2007).

The team question phase is a good opportunity for students to experiment with the idea of tradeoff in practice. Sometimes, they would weigh how interested they are in the question against their perceptions of how challenging or easy it may be to answer the question. The grading guidelines value creative and nontrivial economic questions.

In this group phase, the instructor encourages students to discuss their topics before choosing one question for the group. While more vocal students might impose their topic, the instructor's initial feedback can provide incentive for other students with topics deemed interesting to speak up. This group topic selection comes after the instructor has provided feedback on the initial submission. In this feedback, the instructor would either approve the individual question or offer the student feedback on how to make the question more consistent

with the project requirements. However, this feedback is private information, and it is up to the individual student to share it with their teammates or not.

Key Economic Concepts and Models

At this stage, students would have identified and received feedback on a question their team is interested in researching for the rest of the project. The next step is to begin drafting an outline of their answers by identifying the key economic concepts, models, or principles that will allow them to answer the question. More specifically, students are expected to: (1) re-state the question their team is answering, with the possibility of refining the question based on the feedback received from the instructor; (2) list 3 or 4 important economic concepts, principles, or models they intend to use to answer their question, and (3) motivate their choice of the key concepts or models by explaining their relevance to the topic of interest.

When students carefully complete the "key concepts and models" installment, the rest of their project is made easier as they only need to focus on developing these concepts/models further, use them to answer the question and provide evidence (graphical analysis, illustrative example, statistics, or references) to support their analysis. Students select their economic concepts, principles, or models from those already covered or that will be covered in the course.

The example in Box 1 is provided to students to illustrate the expectations.

Box 1: An Example of "Key Concepts and Models" Provided to Students

"Why are diamonds more expensive than water, even though water is a necessity?"

I would use concepts and models such as:

- Marginal analysis
- Scarcity
- Supply and demand model.

Here is a short motivation for my choice:

Marginal analysis: This concept might explain how one additional unit of diamonds has more benefits than one additional unit of water.

Scarcity: I could use this principle to explain how water is more abundant than diamonds and makes the opportunity cost of diamonds larger than that of water.

Supply and demand model: would then explain why the price of diamonds should be significantly higher than the price of water.

Final Project Submission

For their final submission, students select a medium to convey their ideas. The goal is for them to be creative and express their talent beyond a standard written paper, in a format that is more suitable for their topic. For example, they may record a podcast, create a radio segment, produce a short video, develop an animation, etc. When they end up writing a standard essay, they are encouraged to do so in a maximum of 4 pages. Any audio-visual recording is limited to 4 minutes in length.

Grading Guidelines

All the installments of the project are graded with increasing stakes. The individual economic question statement is worth 10% of the project grade. The team question is also worth 10%. The installment on key concepts and models is worth 20% and the final submission of the project is worth 60% of the project grade.

No matter the medium the students choose, the final installment of the project is evaluated based on the following elements:

- *Creativity and Innovation*: The research question should be interesting, non-trivial (the answer should not be that obvious), and driven by a positive statement (based on some observations of the real world).
- *Organization and concision*: Student work should be organized in a logical way that helps the audience follow the progression of their ideas. Precision and concision matter.
- *Introduction*: An introduction that presents the overall question, captures the audience's attention, and provides a plan or road map.
- *Conclusion*: A conclusion that summarizes the key points and indicates understanding and mastery of the topic by the students
- *Main content*: The main content of the project should demonstrate a comprehensive understanding and application of the material, economic thinking, creativity, and logical reasoning.

A grading rubric is provided for a paper submission in Appendix 3 and a video submission in Appendix 4.

Submission Iterations and Feedback

After each installment submission, students receive feedback from the instructor. For each of the installments but the final submission, students or teams are encouraged to revise and resubmit the assignment within 7 days to account for any feedback provided by the instructor on their initial submission.

In earlier implementations, the instructor would meet with students who were struggling with the initial question statement to help them think through it, either individually or as a team. A possible alternative to this process, suggested by students, is to organize mini workshops in class on students' initial ideas of economic questions or their first key economic concepts and models. This would allow students to share their thoughts with and learn from one another.

Timeline

The project covers the entire duration of the course, with students introduced to the assignment in the first week, ideally on the first day, along with a review of the course syllabus. Although students might not have mastered all the course content by the time they submit their question statement, they develop and refine their economic answer by submitting installments throughout the semester. The approximate due dates in Table 1 offer an idea of how much time students are given to work on each installment in a 7-week or 14-week course.

Table 1. *Approximate Due Dates for Different Installments of the Economic Research Question*

Installment	Due Date in a 7-week course	Due Date in a 14-week course
Individual question	End of Week 2	End of Week 4
Team research question	End of Week 3	End of Week 5
Key Economic Concepts and Models	End of Week 4	End of Week 7
Revised Key Economic Concepts and Models	End of Week 5	End of Week 10
Final Submission	End of Week 6-7	End of Week 12-13

Key Learning Objectives of the MEQ Project

The project is based on a question that the student can answer using material from a principles of microeconomics course. The assignment builds on Marshall's definition of economics as the study of mankind in the ordinary business of life (Marshall 2009). By offering a less-structured application to students, the MEQ project helps them achieve economic literacy through the following learning objectives: synthesizing their knowledge, applying their learning to real-world issues, and developing high-level thinking. These learning outcomes are consistent with Hansen's proficiencies in economic literacy, as presented in Appendix (Hansen 2001).

Knowledge Synthesis

To achieve this objective, students must understand the course content sufficiently to select a subset of concepts and principles that they can apply in-depth to answer their own economic questions. In doing so, students work toward accessing, displaying command of, and making sense of existing knowledge (Hansen 2001). Given the broader nature of the question they choose, students synthesize their knowledge to answer the key question. By requiring students to focus on only three to four core concepts or models, the philosophy of this research project aligns with the alternative goal of the principles of economics to provide students with a self-contained opportunity to gain a deeper understanding and working knowledge of a short list of economic concepts (Salemi 2005).

Real-world Application

One of the requirements of the MEQ project is that the questions that students identify be based on real-life observations. In that sense, the question is related to a positive statement as opposed to a normative statement or a hypothetical situation. Allowing students to relate their learning to a specific question from their observations of the world helps them realize how the course can apply to their own personal or professional life (Sternglass 2017). As students take the course content beyond the classroom and, by applying this existing knowledge (Hansen 2001) to their life experiences, they engage in application that improves their analytical thinking skills (McGoldrick 2007).

Higher-level thinking

In relation to Bloom's Taxonomy (Krathwohl 2002), the project requires students to demonstrate higher-order skills such as analysis, critical thinking, and creation. To achieve analysis, students need to have an appropriate knowledge of the basic course content to use higher-level thinking to connect the answer to the research question to the course materials and

create a deliverable. By creating written reports or audio-visual media to represent their analysis, students contribute to creating new knowledge based on pertinent questions (Hansen 2001).

Overall, the MEQ project goes beyond the economist naturalist assignment (Frank 2006) in four ways. First, in the MEQ project, students work in teams, leveraging the power of collaborative learning, unlike the economist naturalist assignment, where students engage in individual work. Second, the economist naturalist offers students the opportunity to work on two unrelated writing assignments. In contrast, the MEQ project involves working on many installments of the same question, thereby fostering a deeper integration of their learning. Finally, in the MEQ project, all students' topics are required to be challenging and thought-provoking, but in the economist naturalist, this requirement is reserved for only "capable" students. Finally, the MEQ project offers students the opportunity to use alternative media to submit their findings instead of relying only on writing, like in the economist naturalist assignment.

Assessing the Value of the MEQ Project

This section aims to share the data collected between 2019 and 2021 on the effectiveness of this learning tool in promoting economic literacy. Table 2 summarizes the questions and how they were administered to students. The data were collected through three complementary methods: student self-assessment of learning gains (SALG), student critical reflections, and university-administered course evaluations.

Table 2. *Questions on Student Perceptions*

Questions	Year	Type
Describe whether and how the Mini Economic Question Project simulated your learning through application, or your interest in economic news and real-world economics	Fall 2019 to Summer 2021	End-of-course Reflection and 2019 Course Evaluation
As a result of your work on the Mini Economic Question Project, what gains did you make in your ability to use economic thinking to analyze everyday issues?	Spring 2021	SALG question in University's Course evaluation
The economic research project made me more INTERESTED in the current economic news.	Fall 2019	Course evaluation
The economic research project helps me REALIZE how basic economic concepts apply to everyday life	Fall 2019	Course evaluation
The economic research project was helpful in APPLYING economics to real-world	Fall 2019	Course evaluation

Student Assessment of Learning Gain (SALG)

Likert-type questions based on Student Assessment of Learning Gain (SALG) were addressed to students (Seymour et al. 1997) at the end of the course in March 2021, to students enrolled in the Introductory microeconomics course. The most relevant question to the MEQ project was: "As a result of your work on the Mini Economic Question Project, what gains did you make in your ability to use economic thinking to analyze everyday issues?" The answer scale ranges from 1 (No gain) to 5 (Great gain). The data were analyzed using descriptive statistics and charts.

Student End-of-Course Critical Reflection

Critical reflection is a reasoning process that helps students make meaning of an experience. In this course, critical reflection was used to describe, examine, and articulate student learning (Ash and Clayton 2009). Students were asked to critically reflect on their overall learning experience in the course. The prompts of interest ask them to explain whether and how the research project provided them or not with an opportunity to apply the concept learned from the course and increase their interest in economics in general (See Table 2). These reflections were gathered between Fall 2019 and Spring 2021. A qualitative analysis of student responses illustrates the effectiveness of the MEQ project.

Student Course Evaluations

In the course evaluations administered by the university, students were asked what they liked or disliked about the course. The instructor can also provide additional questions to be included in the course evaluation survey. The questions provided by the instructor on the MEQ Project are listed in Table 2. They include a description of how the research paper stimulated their learning through application or their interest in real-world economics, and a rating of their level of agreement with the following statements: (1) *The Mini Economic Question Project made me more interested in the current economic news.* (2) *The Mini Economic Question Project helped me realize how basic economic concepts apply to everyday life.* (3) *The Mini Project was helpful in applying economics to the real world.*

They were also asked the SALG question described earlier: “*As a result of your work on the Mini Economic Question Project, what gains did you make in your ability to use economic thinking to analyze everyday issues?*”

The responses provided by students were analyzed through descriptive statistics. To further understand students’ ratings, they were also asked to also “*Describe how the research paper stimulated (or not) your learning through application or your interest in economics or economic news.*” Their responses were analyzed qualitatively and using word clouds.

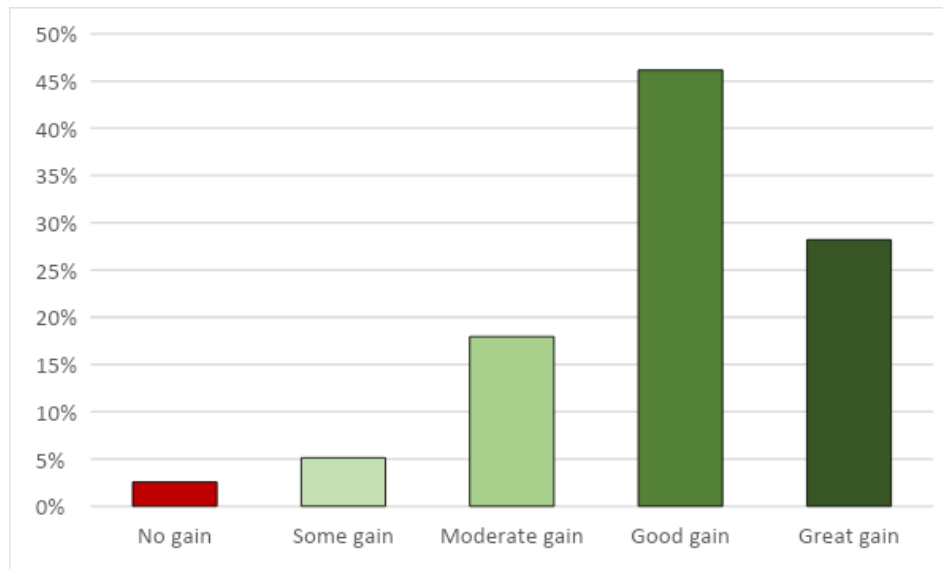
Benefits of the MEQ Project

The results from the effectiveness assessment of the MEQ Project highlight its benefits, including the promotion of economic literacy and other benefits as discussed below.

Promoting Economic Literacy

In surveys, evaluations, and reflections (See Figures 1 and 3), students self-report the impacts of the project on economic literacy and the acquisition of other skills and share their comments on what was most helpful to them.

The results from the SALG question in 2021 are presented in Figure 1. Overall, 97% of students report that the MEQ Project helped them make at least some gains in their ability to use economic thinking to analyze everyday problems. More than 46% experienced good gains while 28% experienced great gains, suggesting high effectiveness of the tool in promoting economic literacy through the application of economic thinking to everyday problems self-identified by students. Only 3% of students reported no gain at all. Students who appreciate the value of the project suggested in the feedback that the instructor “*provide more project work instead of exams and lower the amount of homework problems.*”

Figure 1. Students' gains in economic literacy from the MEQ Project, Spring 2021 (n=39)

Note: Overall, 97% of students (n=39) report at least some gains when asked this question at the end of the short economic research project: “As a result of your work on the Mini Economic Question Project, what gains did you make in your ability to use economic thinking to analyze everyday issues?”

The MEQ project promotes economic literacy through: (i) student agency by providing students with the opportunities to formulate an economic question, both individually and as a group; (2) connection-making between classroom learning and everyday life; (iii) relevance to real world by asking students to apply economic thinking to answer the question; (iv) communication through alternative ways for presenting their research to a larger audience.

Student Agency: Deciding on a Microeconomic Question

In the process of formulating an economic research question, students apply individual and collective choice and distinguish between microeconomic and macroeconomic questions. Table 3 provides some examples of research topics, a justification of their microeconomic nature, and a consideration of their motivation and interest in the question.

- *Individual choice:* To choose a research topic individually, students experiment with individual choice. From their many individual observations, they need to decide on at least one research question, keeping in mind that they may eventually answer that question.

- *Collective choice and tradeoff:* After receiving initial feedback from the instructor, students in groups of 3 to 5 engage in collective choice and bargaining to decide on a single economic question for the team to answer. The process involved bargaining and the application of benefit and cost analysis. In this process, students consider the tradeoff between going with a topic that is potentially easier to answer but that does not spark their particular interest, or a topic centered on their personal interest but may not be so easy to answer.

Table 3. *Examples of microeconomic questions and student motivation*

Question	Why is it a microeconomic question?	Student motivation
Why can bulk good stores sell at a lower unit price than other stores?	I think this is a microeconomic question because it involves the prices set by individual firms. It involves the behavior of the firms which are selling the aforementioned goods on their decision to sell goods at certain prices.	I'm interested in this question because I'm curious about what goes into the prices of things I regularly purchase
Why are free-to-play video games generally much more profitable than pay-to-play games?	This topic would involve consumer tastes in games, as well as the things consumers are willing to buy and how firms can adapt to consumer tastes as time goes on.	Video games are a hobby of mine and throughout the years I've noticed that games that are free to play but have things to buy in-game with real-world money are very profitable. Fortnite is the biggest example that I can think of right now and it is also the biggest game in the world right now.
Some of the oldest businesses in the world have been operating for over a thousand years. What about these firms allowed them to withstand the test of time?	This is a question concerning just a few specific firms and the decisions of their owners over the centuries. It is not an examination of economic systems. Presumably, these firms must have made decisions concerning their own longevity.	I previously studied and enjoyed Japanese economic history. In learning about Japan, I also learned about Japan's many long-standing businesses. I have always wondered what allowed these businesses to exist for so much longer than the average.
Why are there so many Starbucks shops in a small radius?	I think this is a microeconomics question because it deals with the behavior of an individual unit of the economy, the Starbucks company. It involves decision-making by a firm because the company makes the choice of investing more money to open more shops close by, hoping to increase the profits.	I am interested in this question because opening a shop usually requires investing a lot of money and people could just visit the one Starbucks shop in the locality, instead of there being multiple of the same shops.
Some stores have discounts such as buy 2 get 1 for free. Do these discounts really save people's money? Or who gets profits from this?	This is a microeconomic question because the question relates to the decision made by both firms and households.	I am interested in this question because this would happen to everyone in our daily life. This

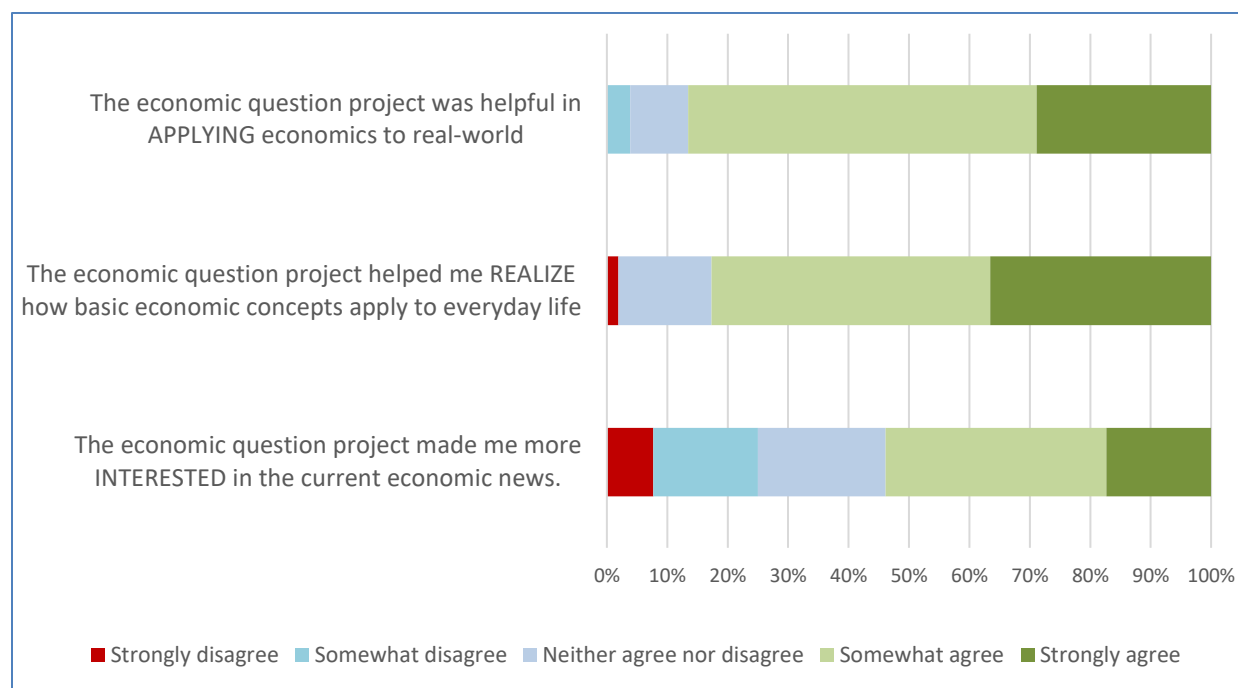
● *Microeconomic v. Macroeconomic question:* Because this course focuses on microeconomics, an important requirement of the choice of the question is a focus on its microeconomic nature. Students demonstrate this requirement by explaining how the question involves the behavior or decision-making of an individual entity. Table 4 offers some examples of initial questions that do not fit the requirement for the assignment, while Table 3 features some good examples of microeconomic questions.

Table 4. *Examples of inappropriate initial questions*

<i>Initial questions by students</i>	<i>Reasons for inappropriateness</i>	<i>Revised Question by Student</i>
How does increasing the minimum wage to \$15 affect lower-middle class unemployment?	The question does not focus on individual behavior or decision-making	Why is America one of the few countries where tipping people in the food serving industry is common and expected?
What are the impacts of consumer behavior on market growth.	Growth is a macroeconomic topic and impact analysis tends to focus on data analysis rather than economic thinking	Why does fruit that travels to the United States from far away countries usually cost less than fruit grown locally?
What is the effect of electric vehicles on local communities from an economic standpoint? Does it actually do more good than harm? How does it affect those who drive gas cars?	The question does not focus on a “why” or “how” question and seems too broad.	How do electric vehicles do more harm than good in society?

Connection-making between classroom learning and everyday life

The project helps students *connect* what they are learning in the classroom to their daily lives. By design, students are expected to derive their questions from an observation they make. This requirement encourages students to use a positive statement as opposed to a normative or hypothetical statement in the economic sense. By doing so, many of them realize how their learning connects more directly to everyday life than they usually imagine. In fact, 8 out of 10 students (83%) agree in a survey that “*the Economic Question Project helped me realize how basic economic concepts apply to everyday life*” (See Figure 3).

Figure 3. *Student Perceptions of the Value of the MEQ Project, Fall 2019 (n=49)**Applying Economic Thinking to Address Real-World Questions*

Addressing their own economic questions provides another opportunity for students to further their economic literacy by thinking like an economist. They do so by applying their economic knowledge and understanding, deepening their learning through peer instruction when they work in teams, and honing their oral presentation skills.

Figure 2. A Word Cloud of Key Economic Concepts and Models Used (Spring 2021), (Created using jasondavies.com/wordcloud)



- Applying their economic knowledge:* To address the research question they chose, students work with their teammates to use economic thinking to answer the question. To achieve this, they would usually identify relevant economic concepts, principles, or models and then apply economic reasoning and evidence-based writing to formulate a logical answer to the question. Figure 2 provides examples of key economic concepts and models. The word cloud in Figure 2 suggests that the most commonly used concepts and models include supply and demand, consumer choice or behavior, incentives, elasticity, marginal analysis, scarcity, tradeoff and opportunity cost, and market structures. While applying their knowledge, they may use graphical analysis and survey the literature to support their claim or support their initial insights. In a course evaluation survey, 9 in 10 responding students (87%) agree or strongly agree with the statement “*The Mini Economic Question Project was helpful in applying economics to the real world.*” Here are some examples of statements from students (See Appendix 5 for more comments).

“It helped connect some real-world concepts to economics, but the level of work easily could have been done by one person.”

“The paper helped me to understand that the concepts we learned in class really do apply to real life and can be used to explain economic phenomena.”

“There were topics I hadn't really even considered as economics that I now see as much more related to economic principles.”

“Final project was interesting to see how the concepts we learned apply to class.”

- Deepening their learning through peer Instruction:* Because students work in small teams, they have the opportunity to explain to each other the economic concepts and models,

leading to a deeper understanding of the material and better economic literacy. Research has indeed shown that peer instruction improves student learning (Cortright, Collins, and DiCarlo 2005; Crouch and Mazur 2001). A student summarizes their improved learning from the project: *“The final project was fun, and I understood my team's concept better than any other we studied throughout the term.”*

- *Presenting their research:* Students use alternative media for presenting their work. Most research outcomes are usually in the form of papers and oral presentations, which help students develop important written and oral communication skills. However, allowing students to use alternative media to present their work helps them reach a larger audience. By addressing a larger audience, students can demonstrate their economic literacy by communicating in non-technical terms. In this project, students used various media such as blogs, short videos, and podcasts to present their analyses.

“I liked the freedom for the term group project, in terms of letting the groups choose what medium they wanted to do (such as a podcast or video or slideshow rather than a traditional paper.”

Other External Benefits

The research project also generates other external benefits such as student motivation, the development of student interest in the subject matter, and teamwork and communication skills.

Student Motivation

The fact that students can use their own research questions based on personal reasons and observations makes them more likely to complete the assignment with purpose and intention, making them more motivated than before:

“Since we got to choose our topics, we were able to make them more personal which motivated us to want to learn more and make it more interesting to us. It also helped me understand some of the overarching themes in this course more in-depth.”

Interest in Economics and Development of Curiosity

Looking back at their learning and through self-examination, students may realize how much their attitude about economics may have changed. For example, they pay more attention to the news and to the way they interact with others every day. On average, 54% of students agree or strongly agree that *“The Mini Economic Question Project made me more interested in the current economic news.”*

In student course evaluations, when students were asked what they liked most about the course, many students spontaneously pointed specifically to the usefulness of the project in their written comments. Here are some examples from Fall 2019 through Spring 2021.

“I liked how the course was interesting and I liked the group work and the team project.”

“The term project increased my interest because I was able to apply in-class concepts to the real world.”

“The course really stimulated my interest in the subject matter especially with the term project and how we are supposed to choose a real-world topic.”

Teamwork, Communication, and Research Skills

Working in teams within the course has encouraged students to learn how to better cooperate with their teammates for the benefit of the whole team. They achieve more through the development of better communication, both written and oral. Critical reflection on the course was revealing from the students' perspectives.

"The second concept (I learned) is that it is important to contribute to the team sometimes even more than expected from you."

"Over the course of the project, it taught me how to make efficient decisions within a group which will be a priority in my major (as I will most likely work in a team), and in most majors, especially in reference to managing data as you want to find an efficient way to store and recall it."

"Until now, I was unable to appreciate the learning opportunities provided by working in a group setting. If I had understood the benefits of studying in groups, I could have improved my grades in classes prior to this term. This newfound appreciation can be displayed through the knowledge attained while working on the term paper. If this were an individual assignment, the end product would be much smaller in scope. However, working on this assignment in a group allowed us to brainstorm much more efficiently than working alone."

"I learned the importance of figuring out how exactly to communicate with my group and arranging face-to-face meetings was critical to all of our successes."

Many students are engaging in research for the first time through the course project. The project also helps students develop micro research skills, as one student explained: *"This project was the first time I ever cited sources in the APA style."*

Finally, the project promotes communication skills by encouraging students to communicate their findings in writing and in oral form. They also choose various audio-visual media to submit their deliverables. Communication skills are among the most desired attributes that employers value when hiring new graduates, according to the Job Outlook survey conducted yearly by the National Association of Colleges and Employers (NACE, 2022).

Potential Costs of the Economic Research Project

To guide other instructors who are interested in applying a similar project, I discuss some of the potential costs associated with the course.

A potential cost can appear in the form of students' negative initial reactions to the project. Students who are not pursuing an economics major may find it unusual or overwhelming to complete a project in an introductory economics course. Such students may have negative initial perceptions. By redesigning the course incentive system, instructors can lessen such negative perceptions. For example, students suggest reducing the number of quizzes and exams to make more room for the MEQ project.

Another potential cost to instructors who engage in this type of assignment is the time needed for grading the assignment. In general, providing students with grading guidelines and leveraging peer reviews in earlier stages can be a time-saving strategy. For example, for the key principles and models, students can provide each other with peer reviews and learn from each other at the same time. Organizing a mini-workshop in a class meeting can allow students from different groups to explain to one another their thinking and mutually share their immediate feedback by leveraging social learning (Maier and Ruder 2024; Cohen and Williams 2019).

These mini-feedback sessions also allow the instructor to share their comments on student progress on the spot, thereby reducing the time needed to provide feedback. Implementing such strategies and similar ones from the writing across the curriculum movement can limit instructor workload (Maier and Ruder 2024).

Another issue could be the potential time taken away from teaching to make room for the project or to organize the feedback and peer-review process. This is not a major issue when the course is designed with economic literacy in mind. As suggested by Salemi (2005), by focusing the course content on a core set of concepts and skills, the instructor can free up time that can then be used for applications such as a short application project like this one. Quick exposure to a vast array of content materials does not allow the students to apply economic logic with which to analyze the economic questions they face in real life (Stigler 1963).

Students suggested that the project would deliver even more value if the teams were required to have check-in meetings with the instructor.

“I think that check-in meetings about the project would be useful - my group had one and it helped us. It is possible that having a mandatory check-in could be beneficial to other groups.”

“I think a little more guidance on the team project would have been helpful, especially in the feedback to the ‘key concepts’ assignment.”

Instructors who are interested in implementing similar projects in their classroom can make room for these targeted student-instructor interactions by reducing other types of assessment.

Conclusion

This paper presents a short economic research project called “*Mini Economic Question Project*” designed to promote economic literacy in introductory microeconomics courses. In this context, economic literacy focuses on the knowledge of key economic concepts, principles, and models and their applications to real life. Students who experimented with the project self-report that this learning activity helped them achieve gains in their ability to apply economic thinking to their everyday lives, a core component of economic literacy. The MEQ project encourages students to develop curiosity about economics. There are many other benefits to the project, including the ability to work in teams, communicating economic thinking to a larger audience using alternative media, and motivating students through interesting “Big Think” questions that promote student agency. Students who are new to economics might benefit from similar projects that can have big impacts in helping them make sense of their learning and the value of economic thinking through connection-making and application. By scaffolding with regular feedback and by leveraging student peer reviews, instructors who are interested in incorporating such a project in their class will find that it does not significantly disrupt their traditional courses.

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There is no conflict of interest to the author's knowledge.

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Appendix 1: Quick Start Guide for Instructors – Mini Economic Question Project

For new adopting instructors, we have found that it is useful to have some streamlined instructions.

Key steps

- Introduce the project and key instructions during the first day or first week of class. Ask if students have any questions.
- Ask students to submit their individual questions by the end of week 2 (See approximate due dates in Table 1)
- Provide immediate formative feedback and a grade on the individual question – the feedback would either validate the student’s question or provide feedback on what needs to be improved. In general:
 - The question needs to be based on an observation of the real world (i.e. based on a positive statement).
 - The question needs to be a microeconomic one – that describes an individual's behavior or decision-making by an individual.
 - The student needs to explain why they are interested in the question or how they came up with it.
- Ask students to work in their groups to identify a team question.
 - When possible, have students work in a mini workshop to provide feedback to each other.
 - Provide feedback to the groups, directing students to one of the approved subjects of their groupmates as needed.
 - Students may revise and resubmit.
- After providing feedback to student groups on their team question, ask them to submit their key concepts and models along with a refinement of the team question as needed.
- Ask students for a mid-term formative self and peer evaluation of their teammates, using, for example, the CATME framework to avoid free riding.
- The instructor provides feedback on the key concepts and models. More specifically:
 - Provide reader’s feedback on the relevance of the concepts.
 - Provide feedback on the ability of the selected key concepts and models to help answer the question meaningfully.
 - See Figure 2 for examples of common key concepts and models. If needed, a good starting point to refer them to is the set of basic principles of economics.
 - Suggest any relevant key concepts that students might not include in their selection.

- Encourage students to revise and resubmit their “key concepts and models” installment before making their final submission.
- If possible, offer struggling groups to meet with the instructor to discuss their questions or potential key concepts and models.
- Students work to submit their final project.
- Ask students to provide reviews on their peers’ submissions.
- Ask students for a final self and peer evaluation of their teammates .
- Grade the final project.

What to share with the students (via the classroom management system or emails)

- Instructions on the project early in the semester
- Grading rubric or guidelines
- Samples of submissions, when possible
- A summary of all feedback after the “key concepts and models” review.

Appendix 2 – An Example of Student Submission of Individual Question

Question: Why do streaming services like Netflix and Disney+ charge consumers monthly or annual fees as opposed to a one-time fee?

➤ Micro vs Macro

I think that this is a microeconomic question since it is discussing the decisions and behaviors of companies and individuals. If this were to be a macroeconomics question, larger bodies such as governments and countries would be discussed.

➤ Interest

I'm interested in this topic because I personally am a consumer of these streaming services, and I would also think it would be more convenient to pay a one-time fee as opposed to the repetitive monthly/annual payments. In addition, I've noticed that there seems to be a trend in the past 5 or so years where more and more networks are coming out with premium viewing platforms, and I wanted to understand a little more about what the new craze is about."

➤ Behaviors and Decision Making

* Firms: Had to make the decisions to create these premium streaming platforms and implement monthly/annual payment options

* Individuals: Have to choose to buy all these individual services to watch the shows they want, and whether to still have a cable subscription as well.

* Both individuals and firms have choices to make and different ways to interact with each other when it involves these streaming platforms.

Appendix 3: Mini Economic Question Project – for Grading Rubric Paper Format

Student:

Grader:

Date:

Dimension (Score)	Exemplary	Proficient	Poor
Topic choice, Introduction, and conclusion ____/5	Your question is interesting, creative, and relevant to the kind of economic analysis we covered in this class. Your introduction presents the overall topic and captures the reader's attention. The conclusion is convincing and shows great understanding of topic.	Your question is interesting and relevant to economic analysis, but not particularly creative or challenging. Your introduction is clear and coherent and relates to the topic. The conclusion shows some understanding of the topic	No title for your paper. Your question is not interesting or relevant to economic analysis. Your introduction shows some structure but no strong sense of what is to follow. No conclusion or poor understanding of the topic.
Research ____/10	You accurately researched and used a variety of information, graphics, and accurate sounds. Your sources include "experts' knowledge" and at least 2 scholarly research papers.	Your sources include at least 1 scholarly research. You recorded relevant information from interpreted significant facts. Some information seems inaccurate.	References to only newspapers, websites, and textbooks. You misinterpreted statements and failed to identify relevant information and sources. No explicit reference
Reasoning ____/15	The project is clear and concise, with a logical progression of ideas and supporting information. Thorough and insightful analysis, which coherently supports your goal or argument. Explicit section-by-section structure	Your paper is written with some logical progression of ideas and supporting facts. Some analyses are well done, and others could be improved. No explicit section-by-section structure	Your paper is vague in conveying a point of view and does not create a strong sense of purpose. No graphs or tables
Use of economic models and analysis ____/15	Every major point was well supported with at least one fact, statistics, and based on economic analysis. You provide information using graphical analysis. You support the analysis using economic models and reasoning	Some points were supported with relevant facts and economic analysis. Some statements are not supported by analysis. Some graphs are not properly referred to in the text. You could use some specific graphical analysis to support your economic analysis.	Some statements are not justified with economic analysis, which makes your viewpoints rather weak. The relevance of some sections was questionable.
Proper Usage of the English Language ____/5	The paper is well written in terms of style and grammar. No major grammatical or spelling errors, helping you get the point across.	Good writing style. A few mechanical errors that do not distort the message	The paper is poorly written. Mechanical errors and mistakes may confuse the reader. The paper lacks structure
Layout ____/5	The paper is written in proper format, not bulleted. The structure is easy to understand and follow. The layout is visually pleasing and contributes to the overall message. Paragraphs are single-spaced, with Arial font, size 11 or Times New Roman, size 12.	The paper is written in proper format. The layout uses horizontal and vertical white space appropriately. Paragraphs are single-spaced, with Arial 11 or Times New Roman 12. In a few places, a long paragraph does not help readability.	The layout shows some structure, but it appears cluttered and visually unappealing. Paragraphs are too lengthy. Paragraphs do not follow formatting instructions
Citations ____/5	All references are cited at the end in proper format, so that the reader can determine the credibility and the source authority of the information. Individual facts are properly cited in-line	Most sources of information use citations and are documented to make it possible to check the accuracy of information. Some Individual facts are not properly cited in-line. List of references not provided or accurate	Sometimes copyright guidelines are followed, and some information does not use proper citations. No list of references.
Total Points ____/60			

Appendix 4: Mini Economic Question Project - Grading Rubric Video Format

	Not Complete	Unacceptable	Needs Improvement	Acceptable	Very Good	Excellent
Content: Introduction to the topic 12 points The topic is presented to the audience and is easily understood.	0 There is no explicit definition of the topic	2 The topic of the project is not immediately evident.	5 It takes the viewer some significant effort to understand the main topic.	8 The topic is mostly clear, but could be better stated or better organized.	10 The topic is clear.	12 The topic is extremely clear and easily understood.
Content: presentation of supporting evidence 12 points Key information from the primary literature is described in terms that a non-scientific audience can understand; the cited evidence is directly relevant to the topic. The evidence is properly interpreted and comes from reputable sources.	0 There is no supporting evidence presented	2 Supporting economic evidence is scant, not explained, completely irrelevant to the topic, or not from a reputable source	5 Supporting evidence is not explained in non-technical terms; the validity of the evidence is questionable; the team uses jargon that is not explained, or evidence that is not relevant to the stated topic	8 Economic evidence is presented and explained in non-technical terms; the quantity of evidence or the quality of the explanation could be improved. One or two facts are not relevant to the topic.	10 Valid economic evidence is presented in non-technical terms that are easy to follow and convincing to the viewer. The data seem relevant to the topic at hand.	12 Valid economic evidence is presented in terms that are easy to follow and convincing to the viewer. The team has shown extraordinary insight in identifying high-quality, relevant data or in interpreting the specific shortcomings of the data that are available.
Content: Conclusion 12 points An interpretation of the preponderance of evidence is presented in terms that are understandable by a non-technical audience; The conclusion is consistent with and supported by the evidence that is presented.	0 No conclusion is stated	2 It is completely unclear how the students interpreted the factual data they presented; the stated conclusion seems	5 The conclusion is very confusing; it is difficult to understand how the students arrived at the conclusion; elements of the	8 A conclusion is stated, and mostly agrees with the given evidence, but could be improved in language or	10 A clear conclusion is given that seems consistent with the evidence provided.	12 The conclusion is very clear; the chosen evidence is entirely consistent with the conclusion. The viewer is convinced of the validity of this conclusion

		contradictory to the evidence presented.	presented data do not seem to support the conclusion.	clarity (too vague or too technical)		
Production: 12 points Includes editing, sound and light, and special effects.	0 Unable to see and/or hear the video well enough to evaluate it.	2 Defects in sound and/or lighting quality make it difficult to watch and understand, and significantly detract from the final product.	5 Some defects in editing, sound quality, or lighting quality detract somewhat from the viewer's experience.	8 Editing, sound, and lighting do not interfere with the viewer's experience, but neither do they enhance it.	10 Students made an effort to enhance the quality of the finished product with sound, lighting, effects, and/or editing.	12 Outstanding effort was clearly made to produce a polished product. Very easy to see and hear. The team went above and beyond in production, editing, and/or effects.
Creativity: 12 points The team attempted to present the information from a new or different point of view. The finished product is entertaining and interesting to watch.	0 Clear lack of effort put into the production of the final video.	2 The presentation lacks creativity.	5 The presentation is dry, or is too complicated or abstract for the viewer to follow.	8 The team attempted to present the story from a new or different point of view.	10 The topic is presented from an interesting or different point of view.	12 The presentation was both interesting and enjoyable to watch. The team truly went "outside-the-box" to create a fresh and innovative way to present their project.

Appendix 5 – Students’ Anonymous Feedback on the Following Question: “Describe how the mini economic question project stimulated (or not) your learning through application or your interest in economics or economics news” (Spring 2019)

- Found interest in a specific topic, able to better understand it, and am more interested when I hear things about my topic in the news.
- I am very interested in the economic news now and in the US and world economy, but the paper was so not needed in this course on top of a video and all the assignments and reading quizzes that we had to do.
- I did not feel like this paper helped. There was very little instruction or thought put into the papers...
- I don't believe it generated any interest to seek out economics in the news and real-world economics, but I did learn a lot in application.
- I guess, it was really hard to come up with a topic our self, but that's real life man. Also, it helps me realize why companies do what they do.
- I really like the research paper and thought it was a good way to test my learning
- I think it stimulated my learning by forcing me to use the economic concepts in a real world setting.
- I think the research paper did provide a means to look at real world economics, but i would have preferred to do a presentation versus a video.
- I thought it was interesting and it made me think more about the real world. I wish it was a solo assignment though so I could pursue stuff I was more interested in, rather than coming up with a topic as a group.
- It allowed us to use the concepts from this class in a real world application. However, it felt sort of rushed.
- It certainly made economics more applicable to real life. It was an excellent opportunity to apply theory to practice. However, it did not stimulate my interest in recent economic news. It will just help me interpret economic news as I stumble upon it.
- It definitely helps me to review all the materials I have learned from this class. It also helps me to systematically regard this world with an economic scientist perspective.
- It didn't really stimulate my yearning to learn about more real-world economics
- It exposes is to the more complicated real world economic situations.
- It helped connect some real world concepts to economics but the level of work easily could have been done by one person.
- It helped in my learning through application
- It is interesting how economics applies to life
- It made me think about a simple question that I observed in terms of economic concepts.
- It made me want to look into more economics news and see what principals are used. Also, it made me realize that there large economic situations in the world are very basic and use very simple principals.
- It reminded me of how economics can relate to my major, as adobe creative cloud is a big part of my professional work life.
- It was a cool assignment, that helped frame the concepts that mostly had whacky examples about impossible things.

- It was hard to be engaged in a topic that was not my own thought or did not come to my mind right away.
- It was interesting to see a real-world application, but finding a topic was difficult and made it hard for me to delve into economics deeper.
- Research paper helps me see the economics in real world rather than applying the principles. I am already interested in economic and willing to learn more about it. Thus, research paper was a huge help.
- Since we got to choose our topics we were able to make them more personal which motivated us to want to learn more and make it more interesting to us. It also helped me understand some of the overarching themes in this course more in depth.
- The final paper was overall good and helped make a real-world connection. The video on the other hand seemed rushed and didn't let us research more, as it was the same content in a new format.
- The paper helped me realize the underlying economic principles and how they apply to real life through a real example. It showed how supply and demand changed in accordance to the people in the market and how that effects pricing.
- The paper helped me to understand that the concepts we learned in class really do apply to real life and can be used to explain economic phenomena.
- The paper made me break down the situation my team selected into component concepts that could be individually rationalized. In other words, I feel more comfortable trying to explain WHY a certain market phenomenon exists (how the situation came to be).
- The paper was interesting and I enjoyed it.
- The paper was interesting because it allowed me to apply what I learned in the class to a real world question.
- The paper was interesting but didn't really spark a new interest.
- The research paper definitely stimulated my learning. Applying the principles we learned to real life problems was not only interesting but helped my understanding of certain concepts as well.
- The research paper helped me understand concepts that we studied in class and connect them to real world situations.
- The research paper helped my learning through application of the concepts. Applying the concepts to a real-world problem really helped with my understanding of the concepts.
- The research paper my group wrote was about the choices fast-food restaurants make to maximize profits. This stimulated my interest in economics because it made me realize how much economics is integrated into our society.
- The research paper stimulated my learning through application because I was required to apply the topics we learned in class to a real world topic. I understood product differentiation much better once I related it back to Apple's models and how they are able to charge more for their products.
- The research paper was just a surface level analysis of economics. It was just another assignment, nothing useful in any way
- The research paper was very easy conceptually but very nitpicky in practice. I would have rather done smaller individual papers on the current class topics. It would have been more work but I think it would have had more educational value.

- There were topics I hadn't really even considered as economics that I now see as much more related to economic principles.
- Through the research paper we were able to understand why video game companies make certain decisions. But more importantly, we learned how to analyze and predict why firms act the way they do. The process of identifying the reasoning of firms after making decisions has given me the ability to analyze any economic decision and make better ones on my own.
- Yes, it effectively stimulates my interest on economic news
- The paper was a great way to take the concepts learned in class to an abstract question you had previously about a real world concept.

Appendix 6: Hansen's proficiencies

Table 1. Hansen's proficiencies of what economics majors should be able to do.

Proficiencies	Selected Assessments
1. Access existing knowledge.	Retrieve information on economic topics/issues.... Track down economic data, data sources.
2. Display command of existing knowledge.	Write precis of a published article. Summarize current condition, outlook of economy in 2-minute monologue or 500-word paper. State dimensions of a current economic policy issue.
3. Interpret existing knowledge.	Explain, evaluate economic concepts/principles used in economic analyses published in newspapers, magazines. Describe how the concepts aid in understanding the analyses.
4. Interpret and manipulate economic data.	Interpret data such as in <i>Economic Report of President</i> . Construct tables from available data to illustrate an economic issue. Explain how to perform/interpret regression analysis.
5. Apply existing knowledge.	Prepare 5-page analysis of current economic problem. Assess costs and benefits of an economic policy issue in a 4-page paper. Prepare 2-page memorandum recommending an economic policy.
6. Create new knowledge.	Formulate questions illuminating an economic issue that needs research. Prepare 5-page proposal for research project. Conduct research study, presenting results in 20-page paper.

Source: Hansen 2001, 232–33.