



I Scream, You Scream, We All Scream for Economics!

Classroom demonstrations that engage learners act as transversals (Picault, 2019) to achieve content acquisition. We bring together two highly engaging hands-on activities that utilize ice cream to stimulate learning. The first activity involves a product taste test with five similar flavors of ice cream. Students try to order flavors from most to least expensive and a dialog ensues about product differentiation. The second activity deploys ice cream sandwiches. Students must examine the functions of money and determine whether ice cream sandwiches could serve as a money. We provide detailed lesson plans for each activity. The lessons are designed for principles-level and 6-12 instruction.

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1. Introduction

“Without ice cream, there would be darkness and chaos.”

- Don Kardong

You probably remember the first time you ran out your front door when you heard the ice cream truck song. Recreate that joy amongst your students by using ice cream as a hook. All you have to do is say: “Today, we will be taste testing different brands of ice cream to learn about product differentiation” or, while holding an ice cream sandwich in one hand: “Do you think ice cream sandwiches would make a good money?” Your students will be primed to learn! As an added bonus, your students most often use sight and sound to learn. Here we will be engaging our taste buds, which helps form lasting memories.

We provide you with everything you will need to create an awesome learning experience. Each lesson plan contains the following elements: an opening statement, an interesting photo, a photo caption, definitions of the key terms and concepts, step-by-step instructions on how to run the activity, debrief questions at the end, a list of key takeaways, and homework you can assign. The lesson plans help learners unpack the activity, which reduces the cognitive load (Sweller, 1988) and makes learning stickier.

2. Literature Review

We begin with a summary of the literature on active engagement; then learn how millennials differ from previous cohorts; and why it is imperative to connect with your audience in order to increase content mastery.

A. Engagement

Students can find themselves lost in the jargon we take for granted. One way around this is to use teaching aids that are familiar to students (O’Roark, 2017; O’Roark and Grant 2018). This puts students in a setting tethered to something recognizable. Most notably, *The Ultimate Guide to Teaching Macro/Microeconomics* (Geerling and Mateer, 2014) includes over 1,000 teaching techniques designed to increase engagement. However, Geerling and Mateer’s resource provides mostly thumbnails. What is missing are in-depth lesson plans that guide inexperienced faculty through all the necessary steps to run the activities. This paper takes two of the thumbnails found in *The Ultimate Guide* and expands upon them to make the learning process stickier.

B. Millennials

Work by Carrasco-Gallego (2017) finds that millennials have a different skill set than previous cohorts. Thus, teaching economic concepts to millennials using lecture alone could be very challenging. Carrasco-Gallego found that short breaks in the lecture contributes to engage millennials by providing them with relevant content. The results of a student self-assessment survey support the expectations of the literature by helping them realize how economics is applicable to the real world, enhancing their internalization of those notions, and recognizing the relevance of economic ideas to their lives. Morreale and Staley (2016) explored several common themes that relate to millennials’ behaviors and learning preferences in college classrooms; however, one omnipresent characteristic of this cohort was the ubiquitous presence of technology and its impact on their lives. The approach taken in the paper flips the traditional chalk and talk script by requiring active participation in both lessons.

C. Transversals

Picault (2019) notes that new teaching methods that include active learning to improve engagement among millennials serve as a transversal between engagement and content acquisition. Utilizing ice cream as a hook is an example of active learning. According to Prince (2004, p. 223): “Active learning is generally defined as any instructional method that engages students in the learning process. In short, active learning requires students to do meaningful learning activities and think about what they are doing”. Freeman et al. (2014) reported results from 225 studies across STEM disciplines, comparing results in classes that rely upon traditional lectures to those employing active learning. In general, students’ average exam scores were shown to improve by around 6% in active learning classes. Additionally, students involved in a traditional lecture setting were 1.5 times more likely to fail as compared to those in classes with significant active learning.

D. Cognitive Load

Cognitive load theory (Sweller, 1988) has improved our understanding of the learning process. Mental resources are limited and the instructor has the ability to allocate those resources in effective, but also ineffective endeavors. However, instructors must consider the amount of load they place on students; if it is too great, they may not learn at all. This is where the existing knowledge (scaffolding) becomes key. As the amount of scaffolding increases, the mental resources necessary to integrate the concept into the student’s existing framework are reduced. With the load reduced, the instructor can begin to focus the students’ resources on processing the course at a deeper level; this has been shown to improve learning (Bransford, Brown, & Cocking, 1999; Entwistle, 2009; Van de Pol, Volman, & Beishuizen, 2010).

3. Lesson Plan 1: Product Differentiation

A. Description of the lesson

This experiment uses a blind taste test to show students how ice cream companies engage in product differentiation in ways that do not relate to taste. Ice cream companies differentiate their product through flavour, quality claims like “all natural” and “super premium”, and brand names. In this experiment, 5 student volunteers taste 5 different brands of vanilla ice cream in a blind taste test, and then have to rank each brand from most expensive to cheapest. You won’t be surprised to learn that students fail miserably. When we ran this experiment at a recent CTREE (Council for Teaching and Research in Economics Education) meeting, the 5 economics educators who volunteered, also failed miserably.

Most of your students have participated in some kind of blind taste test using soda, wine, beer or ice cream as the product of choice. Blind taste tests have become popularised through their use in pop culture: from the Pepsi challenge in 1975 to the Schlitz Brewing Company’s live taste test in front of 100 million people at the Super Bowl in 1981. More recently, blind taste challenges have become a recurring challenge on Gordon Ramsay’s “Hell Kitchen”.

In an infamous parody of Brooklyn hipsters, Budweiser launched its “This Bud’s for Brooklyn” in 2015 with a blind taste test. The premise was quite simple. Hipsters like craft beer, which is more expensive than mainstream brands like Bud. Adherents of craft beer often justify their preference with snobbish references to higher quality – like an art critic. When these hipsters were tricked into thinking that Budweiser was some sort of new age craft beer, by a bartender telling them the beer was “from a 139-year-old recipe, aged in Beechwood”, they

would surely spot this ruse, right? Wrong. Blind taste tests are notorious for making people look foolish.¹

This exercise will help students understand why firms use blind taste tests: To obtain information about customers' perceptions and preferences. It will also clearly demonstrate the influence that brand and reputation have over consumers' preferences. Consumers can save money on brands by first tasting them out.

Interesting photo:



Caption: How do firms differentiate their products? By [advertising!](#)

B. Defining the key terms and concepts

A blind taste test is a scientific test in which either the people being tested or the person testing them, or both, do not know what is being tested.

Monopolistic competition is a type of imperfect competition such that many producers sell products that are differentiated from one another and hence are not perfect substitutes.

Product differentiation is the process that firms use to make a product more attractive by contrasting its unique qualities with competing products.

¹ <https://adage.com/article/ken-wheaton/brooklyn-hipsters-love-budweiser/297657/>

C. Instructions for running the activity

Step 1: Needed items:

1. 5 brands of vanilla ice cream
2. An ice cream scoop
3. 5 small plastic tubs
4. A long table
5. 25 plastic spoons
6. 5 students
7. 5 index cards and pens
8. Some napkins

Step 2: Before class, the instructor needs to place a few large scoops from each brand of vanilla ice cream into 5 tubs marked ABCDE. When class begins, place the 5 tubs on a long table at the front of class. Place 5 spoons in front of each tub.



Step 3: Now call for volunteers by asking: "I need 5 students who like ice cream to participate in an ice cream blind taste test." Display the photo [above](#).

Step 4: When the activity begins, the 5 students will take 1 scoop from each tub. When they have finished, each student must rank the ice cream from most to least expensive on an index card. The instructor (or teaching assistant) can then enter the data into a spreadsheet, which is visible to you (but not yet to the audience).

Step 5: Group work.

1. *Think.* Ask each student to list the factors they look for in choosing their favorite ice cream.
2. *Pair up.* After a couple of minutes, have the students work in small groups and write a list of the most important factors.
3. *Share.* Collect the responses and ask students to share their answers. You would expect to see flavor, cost and taste in most answers. Your role here is to emphasize the importance of advertising in determining preferences. We are about to find out exactly how important.

Step 6: Reveal the cost per gallon of the 5 brands: from most to least expensive. In a standard experiment, we usually opt for the following brands: Häagen Dazs (super premium), Humboldt, Breyers and Blue Bunning (mid-range) and Great Value (dirt cheap). Students are shocked to discover that per ounce, Häagen Dazs is more than 4 times more expensive than the cheapest ice creams: 26.7 ¢/oz v 6.6 ¢/oz. Then, we reveal the student rankings. We like to start with the least expensive. Surely, students can identify the ice cream which tastes like paint stripper?! No. Most get eliminated at this stage. By the time, we get to the most expensive brand, there is nobody left standing in this contest.

Step 7: Debrief discussion.

Most students are genuinely shocked when they see the results of the blind taste test. We have run this test in every semester for the last 10 years and no student has ever successfully ranked the ice cream brands from most expensive to least expensive. This suggests that consumers do not have strong preferences over different brands of ice cream to the extent that they can even tell a difference. We often pose the following question to our students: "Why are people willing to pay so much for luxury brands like Häagen Dazs when they can't identify it as the most expensive ice cream in a blind taste test?" The simple answer, of course, is branding and reputation create the idea of super premium in the consumers' mind.

Step 8: Key takeaways.

1. Most consumers fail a blind taste test
2. Brand and reputation are important.
3. Consider a blind taste test when you are comparing products purely on taste with big price differences.
4. Save money on brands by tasting them out.

D. Homework problem.

If you can't distinguish between cheap and expensive brands of ice cream, under what conditions is it rational to buy the most expensive brand?

4. Lesson Plan 2: The Functions of Money

A. Description of the lesson:

The ice cream sandwiches (about the same width and length as U.S. currency) are used to help learners better understand what makes a good money. The ice cream sandwiches (which are stored in a cooler) are tossed out to participants to help them understand money as a medium of exchange, store of value, unit of account, and liquidity. After tossing out the sandwiches, ask students to work in small groups to see how many of the four functions of money ice cream satisfies. This prompts a fun discussion and helps every student recall the

difference between a good money and a bad money.

This exercise will also help students appreciate the history of money. Early monies included items like feathers, shells and beads. As societies became less isolated, items that were generally accept in exchange became universal. Eventually this led to the use of gems, precious metals and coins. Today, banknotes, plastic, digital, and virtual monies all are widely used.

Interesting photo:



Caption: Would [ice cream sandwiches](#) make a good money?

B. Defining the key terms and concepts:

Liquidity refers to how easy it is to sell or covert an asset into cash without any loss in its value. In simpler terms, liquidity is the ability to get your money whenever you need it.

Medium of exchange is a widely accepted token that is exchanged for goods and services. The token acts as an intermediary instrument and avoids the limitations of barter; where what one wants is exactly matched with what the other has to offer.

Money is a good that acts as a medium of exchange in transactions.

Store of value is anything that retains purchasing power into the future.

Unit of account is the function of money that enables the user to value transactions.

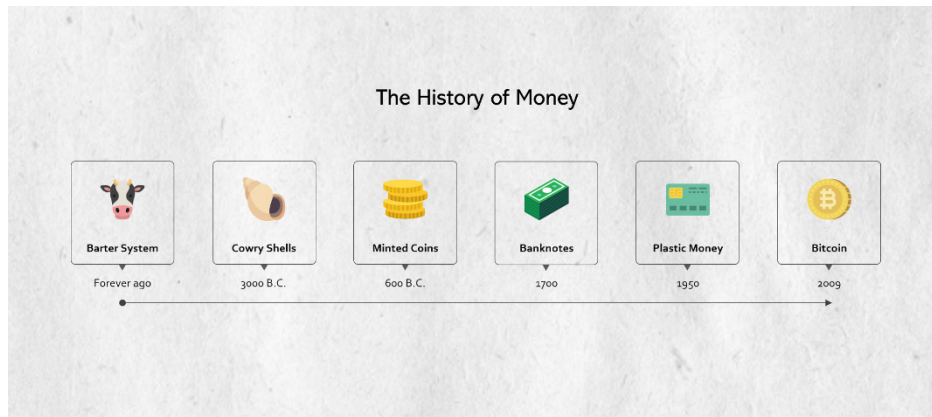
C. Instructions for running the activity:

Step 1: Needed items:

1. 24 ice cream sandwiches.
2. A medium-sized cooler to store the sandwiches.
3. Ice or ice-packs.

Step 2: On the day of the activity fill the cooler with the ice cream sandwiches, add ice or ice packs, if necessary, to ensure that the sandwiches do not melt before you begin.

Step 3: Familiarize yourself with the key concepts and definitions noted above. The point you will want to drive home is that a “good” money has four traits: (1) it is a medium of exchange, (2) store of value, (3) unit of account, and (4) it is liquid. Money exists because it helps overcome the double coincidence of wants necessary in barter, by enabling people to trade when they do not possess exactly what the other person is looking for. Money acts as an acceptable intermediary, allowing parties to exchange with the knowledge that the money obtained will allow the recipient to buy the desired item in a future transaction. The following image is especially good at getting across how money has evolved



Step 4: After introducing the topic of money and its uses, display the photo image and ask, “Would ice cream sandwiches make a good money?”²

Expect plenty of confused looks and lots of “no” responses. Now say, “Let’s find out!”

Step 5: Pull out the cooler and ask, “Would anyone like an ice cream sandwich?” Immediately hands will shoot into the air and the classroom becomes filled with excitement. Hand (or toss) out the ice cream sandwiches. (Note: This activity has been successfully implemented in small (n=20) and large (n=700) classes. In larger settings, tossing out the ice creams sandwiches is an especially effective way to reach enthusiastic students.

Step 6: Group work.

1. *Think.* Give each student time to work on their own, using the four traits of a good money, to explain why ice cream sandwiches would make a good money or not.
2. *Pair up.* After a couple of minutes have the students work in small groups and write up a joint explanation of why ice cream sandwiches either would, or would not, meet each of the four traits of money.
3. *Share.* Collect the responses and have students share their answers. Your role here is to emphasize the four characteristics of a good money in the resulting discussion.

Step 7: Debrief discussion.

Of course, ice cream sandwiches are not a very good money but can students explain why that is the case. Ice cream melts (not very durable) quickly unless it is stored somewhere cold. You might make a bad joke that ice cream easily converts from a frozen to a liquid state just to make sure students can identify what the definition of liquidity actually means. Some students may argue that because you can store ice cream sandwiches in freezers that they

² https://cdn-images-1.medium.com/max/2000/1*mujQgnBV8-qzifxaJE2qmQ.png

retain their value into the future. You might respond with, "That's true but it costs you money to run the freezer." Likewise, some students may argue that ice cream sandwiches can serve as a unit of account. For instance, "It takes 6 ice cream sandwiches to buy a gallon of milk." This is a valid argument. Your job is to lead the conversation so that most students realize on their own that the reason we do not ever see ice cream sandwiches used as a money is that they are an inferior option when there are more practical money choices available.

There are many interesting examples of unusual monies throughout history: Large doughnut-shaped stones from the Island of Yap, cigarettes in prisoner-of-war camps, Tide detergent, and ramen noodles in prisons.³

Step 8: Key takeaways.

1. The best monies are those that are the most widely accepted, are an excellent store of value, and are liquid.
2. Money takes on many forms. If an unusual money exists, it is because there is no better option available in that circumstance.

D. Homework problem.

Describe, using the four traits of money, the advantages and disadvantages of using bees as money in the following clip from Teen Titans Go!⁴

5. Conclusion

The two lesson plans included in this paper can easily be adopted by principles-level and high school instructors (grades 6-12) to increase the level of classroom engagement. Ice cream is familiar to all students, which makes it an ideal medium for teaching. Using a hands-on activity in the form of a product taste test can help consumers make more informed choices about what they buy. Money is at the heart of any economy yet many students have difficulties understanding how money has evolved over time and the difference between what makes a good money and what makes a bad money. These activities help students connect the dots between abstract theory and everyday life. We urge teachers to try one or both of these activities and help recreate the joy ice cream brings to the hearts of most children.

³ See, for example: "The Island of Stone Money", Planet Money Podcast, December 10, 2010; Yves Smith, "Was 'Cigarette-Money' in World War II POW Camps a Case of Commodity Money Origination?", in Naked Capitalism blog (April 17, 2013); Stuart Green, "Why Would Drug Dealers Use Tide as a Currency?", in The New York Times, January 14, 2013; Amy B. Wang, "They'll kill for it': Ramen is the black-market currency in American prisons", Miami Herald, August 23, 2016.

⁴ "Teen Titans Go! — Bees as Money". Accessed from <https://econ.video/2015/04/20/teen-titans-go-bees-as-money/>

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