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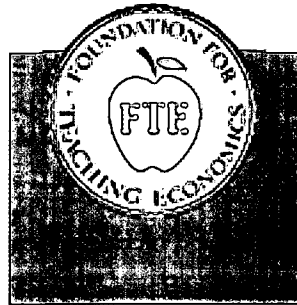
ABSTRACT

This lesson plan offers students the opportunity to participate in the three basic economic systems (market, command, and tradition). By working in each of the systems, students will internalize the fundamental values present in each system and will gain insights into the basic advantages and disadvantages of each system. The lesson plan provides objectives; lists materials needed; and outlines a step-by-step procedure. Attached are information sheets about the economic systems, scoreboard sheets, and answers. (BT)

# Foundation for Teaching Economics

## Bead Game Simulation Lesson Plan

By Ken Ripp



2001

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# Bead Game Simulation

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## PURPOSE:

Students will have the opportunity to participate in the three basic economic systems, (market, command, and tradition). By working in each of the systems, students internalize the fundamental values present in each system. They also gain insights into the basic advantages and disadvantages of each system.

## OBJECTIVES

Students will:

- produce in each of the three basic economic systems.
- learn the names of each of the systems.
- gain insights into the basic values of each system.
- evaluate the incentive structures of each system.
- recognize how each system touches their lives.
- categorize countries by their economic systems.

## MATERIALS

- Six balls of light packaging string.
- each of red, blue, yellow and green wooden or plastic hobby beads.
- A ruler, scissors, and bead "bowl" for each group.
- copies of each of the systems values and goals sheets.
- Overhead of the score board sheet.
- Student copies of the debriefing sheets (Systems Chart and Countries' GDP and System).

## PROCEDURE

1. Have the room set up in six small groups, 4 or 5 students per group.
2. Each group should have a ball of string, a bead bowl, a scissors, a ruler, and six copies of one of the system's values and goals sheets.
3. Three seven minute rounds will be played. The values and goals sheets are rotated from group to group after each round so every group can experience each system during the hour. ( The teacher must be very familiar with the information on each of these sheets, as it helps to speed up the scoring after each round.)
4. Groups are to follow whatever directions are on their values and goals sheet. The teacher acts as the person to distribute the beads each round and as the quality control person.
5. After each production round the group scores are posted on the score board. The winning group is the one that has the most dollars per person after the third round.
6. One fifty minute period is required for the game. Another two or three periods are required

for the debriefing, especially if the question about which system is best is pursued in any depth.

7. Students don't realize how much they learned stringing beads until the debriefing. I keep them in their groups and turn the filling in of the debriefing sheets into a round robin type competition. It's fun and the students are amazed how they can use the fundamentals learned in the game to fill in the systems chart and to hypothesize about the GDPs and real world systems. Answers for both of these sheets are included.
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## Values and Goals of: "That's The Way We've Always Done It Ville"

- Values:** Your group is really concerned with the way things were done in the past. Position of authority, jobs, etc. are handed down according to tradition. You value the past and see no need for concern about increased economic growth in the future. Basically everything in your society is determined by beliefs and customs.
- Goals:** To produce what your ancestors did and in the same way that they did. Following tradition is your basic underlying goal.
- Situation:** With your present limited resources of string, beads, ruler, and scissors you can create either rings, necklaces, or bracelets. Your group gets \$10 (dollars) for each necklace, \$5 (dollars) for each bracelet and \$2 (dollars) for each ring. Your country has always produced bracelets so everyone must produce bracelets.
- Production Procedure:** Each person must make the entire bracelet, no specialization of tasks. The person designated by the teacher will use the string, ruler, and scissors first and then pass it clockwise around the table. Each bracelet must be made with a 12 inch piece of string with 8 beads on it in this sequence: 3 red, 2 yellow, and 3 green. After the beads are on the string it should be tied in a knot to finish the bracelet. The knot should be neatly trimmed off, as done by past generations. After each bracelet is finished it must be passed around the group clockwise and each member must tell the maker how beautiful it is. (This is an old tradition of our country.) The maker then hands it to the quality control person who records the \$5 (dollars) if all procedure are followed correctly. According to tradition each person can only make 1 bracelet every 15 minutes before starting the second one. So after you complete your first one, relax for 15 minutes before starting the second one.
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## Values and Goals of: "We Do What We're Told Ville"

- Values:** You've accepted a government which is run by a very strict and strong central leadership group. You're highly organized and the people of your group are assigned specific tasks by the leader. Your country strives for efficient use of time and resources, which will increase economic growth and hopefully raise the standard of living. It is up to the central leaders to determine what is needed and how the resources will be used.
- Goals:** To produce what the central leadership finds necessary for your society. Also, there must be an efficient use of time and resources so increased production and growth will occur.
- Situation:** With your limited resources of string, beads, ruler and scissors you can create either rings, necklaces or bracelets. Your group gets \$10 (dollars) for a necklace, \$5 (dollars) for each bracelet and \$2 (dollars) for each ring. Your country needs 5 bracelets immediately, and then the central planners want necklaces to be produced by your group.
- Production Process:** The central planners emphasize specialization. The person sitting closest to the front of the room will be the string cutter, then going clockwise around the group, the next person will be the bead sorter, then the bead stringer, knot tier and knot trimmer. A bracelet must be made from a 12 inch piece of string with 8 beads on it, in this sequence: 2 red, 2 yellow, 2 blue, and 2 green. A necklace is made with a 20 inch piece of string and 10 beads in this sequence: 3 yellow, 3 blue, 2 green, and 2 red. After the beads are on the string it should be tied in a knot and the knot should be neatly trimmed. The finished product is then handed to the quality control person who marks down the dollar amount. Your group will receive \$10 (dollars) per person if the required quota is filled. After that, the dollars earned by your production will go to the central planners and will not be added to your total dollar amount.
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## Values and Goals of: "Make As Much As We Want Ville"

- Values:** Your country and economic system reflects values which center around rugged individualism. It is up to each person to make herself/himself more prosperous than other people. Your country produces whatever brings the highest price and produces it with the method that costs the least. Individual rewards and material incentives are used to encourage and stimulate continuous economic growth and production.
- Goals:** To produce whatever your group decides will be most beneficial for it. You will also want to organize yourselves so you can make the most efficient use of time and resources. Maximized profit is the key.
- Situation:** With your present limited resources of string, beads, ruler, and scissors, you can create either rings, necklaces, or bracelets. Your group gets \$10 (dollars) for a necklace, \$5 (dollars) for a bracelet and \$2 (dollars) for a ring. Your group produces whatever it wants.
- Production Process:** It is up to you to organize your group and choose jobs in whatever fashion you want. (You should have a string cutter, bead sorter, bead stringer, and knot tier). A ring must be made from a 6 inch piece of string with 4 beads in this sequence: 1 red, 1 yellow, 1 blue, and 1 green. A bracelet must be made from a 12 inch piece of string with 8 beads on it in this sequence: 2 red, 2 yellow, 2 blue, and 2 green. A necklace is made with a 20 inch piece of string and 10 beads in this sequence: 3 yellow, 3 blue, 2 green, and 2 red. After the beads are on the string it should be tied. You may trim the knot neatly if you want. After the tying is done the finished product must be handed to the quality control person. Your group will be paid in full for as many of the items as you can produce within the time limit.

## Scoreboard Sheet

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| Team | Market | Command | Tradition |
|------|--------|---------|-----------|
| 1.   |        |         |           |
| 2.   |        |         |           |
| 3.   |        |         |           |
| 4.   |        |         |           |
| 5.   |        |         |           |
| 6.   |        |         |           |

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## Scoreboard Sheet

|   | Market | Command | Tradition |
|---|--------|---------|-----------|
| Progress: Is it Stressed?                 |        |         |           |
| Choice of Jobs                            |        |         |           |
| Motivation to Produce                     |        |         |           |
| How to Produce (Degree of Specialization) |        |         |           |
| What to Produce                           |        |         |           |
| For Whom to Produce                       |        |         |           |
| Base Values                               |        |         |           |

Which system is best? Explain.

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**1994 Figures or Estimates**

**GDP = Gross Domestic Product (total production of a country)**

**S = System (market, command)**

**PCI = Per Capita Income**

|             | <b>S</b> | <b>GDP</b> | <b>PCI</b> |
|-------------|----------|------------|------------|
| Afghanistan |          |            |            |
| Canada      |          |            |            |
| China       |          |            |            |
| Cuba        |          |            |            |
| France      |          |            |            |
| Iran        |          | 90         | 1,500      |
| Germany     |          | 1,339      | 17,400     |
| Japan       |          |            |            |
| Russia      |          |            |            |
| USA         |          |            |            |

|                          |       |        |        |        |        |
|--------------------------|-------|--------|--------|--------|--------|
| <b>GDPs in billions:</b> | 537   | 14.9   | 396    | 6,379  | 3      |
|                          | 413   | 1,008  | 90     | 1,339  | 4,254  |
| <b>PCI's</b>             | 1,370 | 370    | 18,900 | 34,040 | 2,680  |
|                          | 200   | 19,600 | 1,500  | 17,400 | 20,817 |

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## ANSWERS

|   | Market  | Command  | Tradition                            |
|---|---|--|--------------------------------------|
| Progress: Is it Stressed?                 | (Highly Stressed)                                 | (To Some Degree)   | (Not at All)                         |
| Choice of Jobs                            | (Individual Preference)                           | (Government Directed)  | (Custom Directed)                    |
| Motivation to Produce                     | High Self-gain                                    | Limited Social Gain  | Traditional Incentives               |
| How to Produce (Degree of Specialization) | Least Cost Method                                 | Least Cost Method  | Traditional Ways                     |
| What to Produce                           | Whatever is Most Profitable                       | Whatever the Government Decides is Needed                        | Whatever was Traditionally Produced  |
| For Whom to Produce                       | Highest Bidder                                    | Those Declared in Need   | Distributed by Custom                |
| Base Values                               | Competition, Material Rewards, Self-gain, Freedom | Cooperation, "Moral" Rewards, Societal Gain, Governmental Decree | Custom, Traditional Ways and Beliefs |

Which system is best? Explain. (This is a great lead into a discussion of basic economic goals such as growth, efficiency, stability and equity.)

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# Answers

## 1994 Figures or Estimates

**GDP = Gross Domestic Product (total production of a country)**

**S = System (market, command)**

**PCI = Per Capita Income**

|             | <b>S</b>        | <b>GDP</b> | <b>PCI</b> |
|-------------|-----------------|------------|------------|
| Afghanistan | (command)       | (3)        | (200)      |
| Canada      | (market)        | (537)      | (19,600)   |
| China       | (in transition) | (413)      | (370)      |
| Cuba        | (command)       | (14.9)     | (1,370)    |
| France      | (market)        | (1,008)    | (18,900)   |
| Iran        | (command)       | (90)       | (1,500)    |
| Germany     | (market)        | (1,339)    | (17,400)   |
| Japan       | (market)        | (4,254)    | (34,040)   |
| Russia      | (in transition) | (396)      |            |
| USA         | (market)        | (6,379)    | (20,817)   |

|                          |       |        |        |        |        |
|--------------------------|-------|--------|--------|--------|--------|
| <b>GDPs in billions:</b> | 537   | 14.9   | 396    | 6,379  | 3      |
|                          | 413   | 1,008  | 90     | 1,339  | 4,254  |
| <b>PCI's</b>             | 1,370 | 370    | 18,900 | 34,040 | 2,680  |
|                          | 200   | 19,600 | 1,500  | 17,400 | 20,817 |



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