

FREELoader

Freeloder prompts players to deliberate whether to work for themselves or the group. This simple game requires minimal materials and preparation and can be played by groups from 3 to 20 or 30. In a large class, groups of different sizes can play simultaneously.

The game is inspired by the *free rider problem*, a key topic in game theory and social psychology with implications for economic, environmental, political, and other contexts; it is potentially applicable to any social situation in which a community draws from a shared resource. Those who use the resource for personal gain but rely on others to maintain it are “free riders” or “freeloaders.” Any such system can only tolerate a limited number of freeloaders before the resource is depleted or destroyed. Public broadcasting systems and

environmental resources (like parks and green spaces) that require maintenance but do not charge users a direct fee are common entities in which freeloding can be a major problem.

In that sense, the concepts explored here are related to the Tragedy of the Commons, first described in 1968. Whenever a group is responsible for maintaining a common resource—a plot of land, a source of water, a population of fish or game—each individual within the community is rationally motivated to use as much of that resource as possible. However, if everyone does so, the resource may be damaged beyond its ability to replenish itself. Overfishing, deforestation, and pollution can all result in a resource being destroyed by the collective actions of the individuals using it.

PROCEDURE

MATERIALS

- Tokens (e.g., pennies, washers, marbles, pebbles etc.) for each player.
- A method for tabulating and displaying results (white/blackboard, etc.).

PREPARATION

Decide how many groups you need to divide your class into. A group size of five to seven is ideal. Once each group is formed, give each player a penny or other token. Ask each group to form a circle with their hands behind their backs.

For each group, create a scorekeeping grid like this:

| | PLAYER 1 | PLAYER 2 | PLAYER 3 | ... |
|---------|----------|----------|----------|-----|
| ROUND 1 | | | | |
| ROUND 2 | | | | |
| ROUND 3 | | | | |
| ... | | | | |

PROCEDURE (CONT'D)

INSTRUCTIONS

Tell the class:

- “ 1. This game will be played in a series of rounds. In each round, all *each* of you has to decide is: Should I show a token or not?
2. Each of you has a token. Behind your backs, make a fist with one hand, either with or without the token in your hand.
3. I'll run each round with a countdown: "5, 4, 3, 2, 1, Show!" When you hear "Show," everyone shows his or her hand, which will either be holding a token or empty. (Demonstrate.)
4. Here's how you score points: If you're holding a token, you get 1 point.
5. If you're not holding a token, but someone else in your group is, you get 2 points.
6. But at least one person in the group has to be holding a token. If nobody is holding a token, the game is over!
7. Feel free to talk or negotiate with other players until I start the countdown. Do you have any questions? ”

PROCEDURE (CONT'D)

INSTRUCTIONS (CONT'D)

When all of the groups are ready, tell them that the first round is about to begin. Give them 30 seconds to negotiate if they wish to. Encourage discussion. Then start your countdown for the first round. When the group's hands are visible, tabulate each individual's score using the scorekeeping grid. As an example, if in the first round, players 1 and 3 both held a token, but player 2 did not, scores would be:

| | PLAYER 1 | PLAYER 2 | PLAYER 3 | ... |
|---------|----------|----------|----------|-----|
| ROUND 1 | 1 | 2 | 1 | |
| ROUND 2 | | | | |
| ROUND 3 | | | | |
| ... | | | | |

(If you have multiple groups, you may want to designate a scorekeeper for each group.)

If nobody in one group holds a token in a given round, their game is over. Play up to 10 rounds, then ask everyone to look at the scores of all of the groups. Did any group fail to play more than a few rounds? Did any group keep playing for all 10?

See the Variations section for different ways to run this activity.

DISCUSSION QUESTIONS

- What does *freeloader* mean to you? Were there any freeloaders in this game? When did you realize they were faring better than others? What did you do about it? Did you retaliate by “punishing” them? How? If you did not retaliate, why not?
- How does *reciprocity*—“I’ll scratch your back if you scratch mine”—come into this game?
- Can you think of examples of freeloaders in the real world? What kinds of goods or services can be exploited by freeloaders? (You may wish to provide economic or environmental examples.) What techniques might be useful in reducing freeloading? Are there *good* reasons to be a freeloader?
- Find patterns in the data. Perhaps one player showed the token every time while another had an empty hand throughout the game. Ask what prompted each strategy and what participants thought of those behaviors.
- How do emotions drive behaviors in this game?

VARIATIONS

- Instead of 10 rounds, let *players* decide when to stop. (You’ll need to keep track of the number of rounds played.) How did they decide? How many rounds do they play? Does the motivation for a group to play more rounds outweigh the motivation of individual players to score more points?
- To reinforce big picture connections, you may want to play with more symbolic tokens. Instead of neutral tokens, participants could be given fake money or representations of a natural resource. How does this influence the way the game is played or the discussions players have?
- Change the amount of time players have to make decisions by lengthening or shortening the countdown. Does having less time make people more or less likely to freeload? Or give players more time between rounds to talk amongst themselves.
- Experiment with anonymity. Can you modify the game so that players don’t know exactly who the freeloaders are?
- Divide the class into two halves and separate them in different rooms if possible. Each half should engage in the activity in the same way, but give each a different title—one emphasizing individual gain (e.g., Take Care of Yourself), the other emphasizing cooperation (We’re All In it Together). Does this *framing* manipulation affect how many freeloaders are in each group, or how many rounds groups play? You might first tell students that they played the same game and ask for their predictions of how that might have affected game play before revealing the results. What other examples of framing can the class come up with?

RESOURCES

Rock, Paper, Scissors: Game Theory in Everyday Life (2008)

Len Fisher's easy-to-read guide outlines the core concepts of game theory and how they apply to many everyday situations.

Thinking Fast and Slow (2013)

Nobel-winning psychologist Daniel Kahneman discusses research suggesting that we have two ways of processing information—a quick, intuitive, often unconscious method and a slower, more deliberative method.

Moral Tribes: Emotion, Reason, and the Gap Between Us and Them (2013)

In this thought-provoking book, Harvard psychologist Joshua Greene reviews research on how people do and don't work together to solve common problems and discusses the implications for human societies.

Free Rider Problem

en.wikipedia.org/wiki/Free_rider_problem

An overview of the free rider problem.

Tragedy of the Commons

garrethardinsociety.org/articles/art_tragedy_of_the_commons.html

Garrett Hardin's 1968 paper describing situations in which joint management of shared resources can lead to tragedy for all.

Framing Effect (Psychology)

en.wikipedia.org/wiki/Framing_effect_%28psychology%29

A description of research on framing effects.



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