



Public goods game



This sequence is intended as a framework to be modified and adapted by teachers to suit the needs of a class group.

Resources needed

- A set of playing cards for every 13 students. If you have more than 13 students, use a second deck with a different coloured front-side.
- Public goods game – Instructions
- Earnings scorecard



Suggested activity sequence

- 1** Distribute a set of 4 cards to each student (each student to be given 4 cards with the same value from the one pack, such as 4 Jacks – one of each suit).
- 2** Use the *Instructions* to explain the rules and procedure of the game. Students will need to complete their own *Earnings scorecard* after each round.
- 3** After the 10 rounds have been played, discuss with students what they learned about public goods and the **free-rider problem**. Possible discussion points include:
 - How did the incentive to ‘free-ride’ on the contribution of others affect your decision to contribute?
 - If you chose to contribute to public goods, why did you do so?
 - If you chose not to contribute, why?
 - What does your scorecard tell you about the relationship between maximising your earnings by not contributing and maximising group earnings when everyone contributes?
 - What happened to contributions to public goods when the value of not contributing was reduced? Why?
 - What patterns can you see from your scorecard in relation to group contributions? Did people contribute more or less as the first 5 rounds progressed? Why do you think so?
 - How did this game illustrate the idea that a **pure public good** is both non-rivalrous and non-excludable?

**Note:**

- A good is **non-rivalrous** is when the consumption of the good by any one individual does not inhibit another's benefit from this good.
- A good is **non-excludable** when it is impossible to prevent an individual from enjoying the benefits of this good even if this individual has paid nothing toward its provision (non-excludable).

- 4 *Think-pair-share*: The conflict between individual incentives to free-ride and social incentives to contribute towards the provision of a public good.

You might like to also try a *Where do you stand?* activity to the statement:

Public goods should be made private so everyone is forced to pay for their use.