

# Game theory assignment



**ASSIGN  
BUSTER**

Assignment 2: Planning and Playing a Game Objectives: • Learn how individuals contribute to teamwork • Experience some of the features of group work and teamwork • Understand what managers and organizational developers do to transform • groups into teams • Articulate the tangible benefits (both quantitative and qualitative) of • high-performing teams • Finish with an interest in learning more about these concepts and • techniques to apply what you learn Background: For this assignment, you will plan and play a game with your family or friends, or at work based on the idea of the classic prisoner’s dilemma.

If you have had a class on game theory, you will be well aware of this concept. It forms the basis of many TV game shows. The prisoner’s dilemma was illustrated in Truman Capote’s book, “ In Cold Blood” concerning the 1959 robbery of a Kansas farmhouse by Perry Smith and Dick Hickock, who murdered their victims in order to eliminate the witnesses. After the men were captured, the police interrogated them separately. To get a confession, the police offered the men a reduced sentence for cooperating. Failure to cooperate would result in a death penalty charge for both.

In the prisoner’s dilemma, if both parties cooperate they are mildly punished; if one betrays another, one is severely punished while the other goes free; and if both betray one-another, both are moderately punished. Can you think of settings where you work in which the organizational structure has created a prisoner’s dilemma? Competition can (but does not necessarily) bring out conflict. In game theory, there are non-cooperative and cooperative games. A non-cooperative zero-sum game has a definite winner and loser. For one to win, one must lose. We often think of politicking as an element of that.

A cooperative game is where everyone who plays is better off for having played than not having played the game. That is not to say that everyone is equally well off, but simply better off than they were before playing. Hence, even in a cooperative game, some people will likely benefit more than others.

Instructions

- Review in your textbook, the Big Five personality dimensions, pp. 74-76, and then consider the 3. 1 Personality Insights inventory
- Select four or five friends, coworkers, or family members and have them take the personality inventory
- Plan and play a game with the participants

Write a 5-10 page paper that addresses the assignment questions below

As you plan and play your game, you will negotiate the type of game you want to play and your role in it. Strive to determine some personal characteristics of the game participants a head of time, or by observing them. Consider how the personal characteristics of the individuals in the game manifest themselves in the informal roles they assume during the planning and execution of the game. For the purpose of this assignment, you will want both a cooperative and a competitive element.

To do that, you can form several groups to compete and cooperate with each other, or you can have individuals in one group compete and cooperate. You can use rewards and/or punishments to create the competitive/cooperative motivations.

Evaluation: When groups are formed, we want to consider how organizational structures, processes, and situations impact on group motivation, politics, and goals achievement. Alignment of all of these structural, personal, and interpersonal components will help to ensure that the group will meld into a team.

A defining feature of teamwork (versus group work) is cooperation! One of the factors that affect cooperation is conflict. Conflict is defined as when someone perceives that his/her interests are opposed or negatively impacted by another. Conflict can at times produce positive results depending on the basis for the conflict and how the conflict is handled (functional conflict). The worst kind of dysfunctional conflict produces betrayal. Note that team performance can be observed in how well the team coordinates their interdependencies, works efficiently, communicates, and accomplishes their mission.

Consequently, as you implement your game, assess your players based on these factors and the informal roles they play. After you have played the game, reflect on the personality assessments your participants took, and then consider how they planned and played the game. Write a (5- 10) page analysis to address the following questions: 1. How well did the personality assessments reflect in the behaviors participants displayed during the game? 2. What do these assessments tell us about how we perceive ourselves versus how others perceive us? . What informal roles did participants assume during the game, and were they different from the planning portion from the playing portion of the exercise? 4. What did I learn about myself? For example, did the exercise show that you have characteristic ways of relating to others that are distinctive, or similar, to those the others? Did the exercise show that in a particular type of situation you acted in a particular way, or that when others acted in a particular way, you felt happy or anxious or angry, etc.? . What did I learn about someone else in the exercise? Did you see something new about them, such as “ they seemed more capable than I

imagined,” or “ inattentive when things were stressful? ” 6. In playing your game, what could you have done to increase cooperative behaviors? 7.

Based on your game experience, what are some of the key factors involved in gaining cooperation from people in a business setting? 8. How would you go about getting cooperation from a “ difficult” co-worker? Give an example or scenario.