

# [Free research paper on the game theory concept](https://assignbuster.com/free-research-paper-on-the-game-theory-concept/)

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## Introduction

Over the years, many theories have been stipulated to explain how different things happened or happen. Different disciplines have different theories that try to explain why different things in the concept came to be. For instance, in economics, there are different theories that show different concepts. Game theory is one of these theories, and it attempts to establish logically and mathematically the strategies that different players need to have to ensure the best results in a wide range of “ games.” However, all these games share a common feature. This feature is called interdependence. In that, the result for each partaker will more likely depend on the strategies of all other players. Zero-sum games is a case whereby the players interests of the totally conflicts totally. In most cases this happens when one of the players becomes selfish and wants to gain in the expense of the rest. This paper will exclusively discuss this and more application of this theory.

## Discussion

The main proponent of the game theory is a Princeton mathematician called . According to this mathematician, in the past years the main emphasis has been zero-sum games (pure conflict). Here, all the other games were considered in a complaisant form in which the partakers are supposed to not only choose their actions, but to also implement them (Ross 43). Today, the research has not focused on purely cooperative or zero-sum. The core importance of the game theory is that the theory gives the different strategies that can be used by each player to come up with the best results. The theory has proposed two different types of strategic interdependence. They include simultaneous and sequential. According to simultaneous strategy, in order to achieve desirable outcomes, all players need to act at the same time and just ignore the actions of the other players. On the other hand, sequential all the players are supposed to move together with each player aware of the actions of the rest 54)
The overall principle for a participant in a sequential-move game is to reason back and look ahead. Here, each player needs to work out the reaction of the other players when they discover his current move. The player antedates where exactly his original actions will eventually lead. He then uses this information to estimate his present best choice. Before thinking of how the rest of the players will respond, he first puts himself in their situation and tries to figure out how they will think. This is done to avoid assuming things and instead try to reason like the rest of the players. An unpretentious game like tic-tac-toe can be resolved using sequential-move game and make the whole process much easier. For other games that are complex like chess, players find moves and evaluate the outcomes on the basis of experience (Colin 8).
Unlike sequential, that is described with rectilinear chain of reasoning, simultaneous moves involves a mainly dependent on logical circle. Despite the fact that all players act at the same time, each partaker needs to know what the rest of the players are doing. This in turn applies to all the rest, they all must find out what the group is doing. Therefore, each player must metaphorically put himself in the situation of all and try to calculate the results. The difference with sequential is that one’s best action are always incorporated in the overall calculation (Roger 7).

## Conclusion

This paper has exclusively explored the game theory and how it’s applied. The paper has provided two types of the game theory and explained how each of these perspectives are applicable.

## Work cited

. . Game Theory: Analysis of Conflict, Harvard University Press, p. . Chapter-preview links, pp. . 1991. Press
. Behavioral Game Theory: Experiments in Strategic Interaction, pp. 5-7 (scroll to at ). 2003. Presss
. " game theory," Introduction, , 2nd Edition. 2008. Press
Ross, Don. . The Stanford Encyclopedia of Philosophy (Spring 2008 Edition). Edward N. Zalta (ed.). 2008. Press Retrieved 20012-12-05.