

## **Data about: Increasing cognitive demands during a cooperation-opposition game can reduce gender disparities on participation**

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### **General Introduction**

This dataset contains data collected during participation in a traditional game of cooperation and opposition (Capture the Flag) in physical education classes (203-2024). It is being made public both to act as supplementary data for publications. The data in this dataset were collected at the University of Barcelona, Faculty of Education (in May 2023), at the Escola Sant Vicenç primary school (in May 2024), at the Institut-Escola Manresa primary school (in May 2024) and at the Institut Quercus secondary school (between October 2023 and June 2024).

### **Purpose of the experiments**

The purpose of these experiments was to determine gender differences in participation in a motor game according to the cognitive demands of the game.

### **Intervention**

Each group of students participated in the same traditional game, "Capture the Flag", classified as a cooperation-opposition game, under two conditions: the standard version of the game (CONTRAST) and a modified version designed to increase the cognitive demands (COGNI). Multiple rounds of each game version were played for 10 minutes each. Each player was observed for a randomly selected three-minute period from the full game recording for both game versions (CONTRAST and COGNI).

### Description of the data in this data set

The data included in this data set refers to subjects' characteristics (anonymous) and the roles they adopted while playing the game Capture the flag in two different versions (CONTRAST and COGNI) (see Table 1). The experimental group 1 refers to the students from the primary schools (children). The experimental group 2 refers to the students from the secondary school (teens). The experimental group 3 refers to the students from the university (young adults).

**Table 1.** Behaviour Recording System During the Two Versions of the Game

Roles		Description	Codification
Offensive	OG	Gets the flag	OG_OF
	OD	Dodges an opponent	OD_OF
	RA	Runs away from an opponent	RA_OF
	OR	Helps a fellow escape	OR_OF
	NR	Does not recognize being caught	NR_OF
	OB	Back to defensive camp	OB_OF
	OBF	Back to defensive camp with a flag	OBF_OF
	OC	Is caught by a defender	OC_OF
	DO	Goes to offensive camp	DO_OF
Defensive	DC	Catches an opponent without flag	DC_DEF
	DCF	Catches an opponent with flag	DCF_DEF
	CO	Chases an opponent	CO_DEF
	DP	Defends a prisoner	DP_DEF