

Jonathan Piatos  
Carlos Agudo  
September 18th

## Usability-metrics

This experiments aims to obtain some evidence of usability by measuring a set of tasks performed on Call of Duty Black Ops. and Modern Warfare 2 for Xbox 360

### Test Procedures for Users:

- User must start a new game from the title menu. If their is a previous save file, the user overwrite the file.
- User must pause the game prior to the start of the tutorial/ mission in order to change the brightness settings. Users can access these changes by going under "Options"
- User must complete Tutorial (In Modern Warfare 2)/ First Mission (In Black Ops).

		EFFICIENCY			LEARNABILITY	
	Sub	BLACK OPS.	M.W.2	Sub	BLACK OPS.	M.W.2
User must start a new game from the menu	#1	4.0	4.0	#4	14.5	11.7
	#2	5.4	5.1	#5	15.0	4.5
	#3	3.3	3.5	#6	15.3	11.6
		time in sec	time in sec		time in sec	time in sec
User must change the brightness settings	#1	6.0	3.4	#4	10.5	14.6
	#2	5.2	3.2	#5	9.0	7.5
	#3	4.2	3.5	#6	11.0	13.5
		time in sec	time in sec		time in sec	time in sec

		EFFICIENCY			LEARNABILITY	
User must complete either tutorial/ first mission	#1	2.32.7	2.40.0	#4	6.36.0	8.24.5
	#2	2.40.0	3.59.0	#5	4.10.0	9.50.0
	#3	2.16.3	4.15.1	#6	5.16.4	10.17.6
		time in min.sec	time in min.sec		time in min.sec	time in min.sec
		SATISFACTION				
User was asked to rate his satisfaction	#1	5	4	#4	4	7
	#2	7	7	#5	5	8
	#3	8	7	#6	5	6

### AVERAGES

	EFFICIENCY		LEARNABILITY	
	BLACK OPS.	M.W.2	BLACK OPS	M.W.2
Task 1	4.3 s	4.2 s	15.0 s	9.27 s
Task 2	5.1 s	3.4 s	10.2 s	11.7 s
Task 3	2 min 44.6 s	4 min 16.6 s	5 min 44.0 s	9 min 43.6 s
	time in min.sec	time in min.sec	time in min.sec	time in min.sec
	SATISFACTION			
	6.7	6	4.7	6

### CONCLUSION

-Efficient users showed very similar results when performing tasks 1 and 2 which are related to menu navigation. This means that there is no strong interface usability difference in between Black Ops and M.W.2 for experienced users.

-Beginner users took less time to learn how to perform basic menu navigation on M.W. 2 than in Black Ops. This can lead to the conclusion that M.W.2 provided a better learnability for menu navigation.

-There was a bigger difference on the timing average between beginners and experienced users for the M.W.2 tutorial than for the Black Ops. tutorial. This leads us to the conclusion that Black Ops. provided a tutorial with higher learnability than M.W.2.

-Efficient users rated higher on Black Ops. for satisfaction than M.W.2. Oppositely, beginners rated higher on M.W.2 for satisfaction than on Black Ops.

-Taking into account all the previous conclusions, and focusing on the fact that the primary metric for video-games is satisfaction, it can be inferred that M.W. 2 is better designed to satisfy beginner users, and Black Ops. is better designed to satisfy more experienced users.