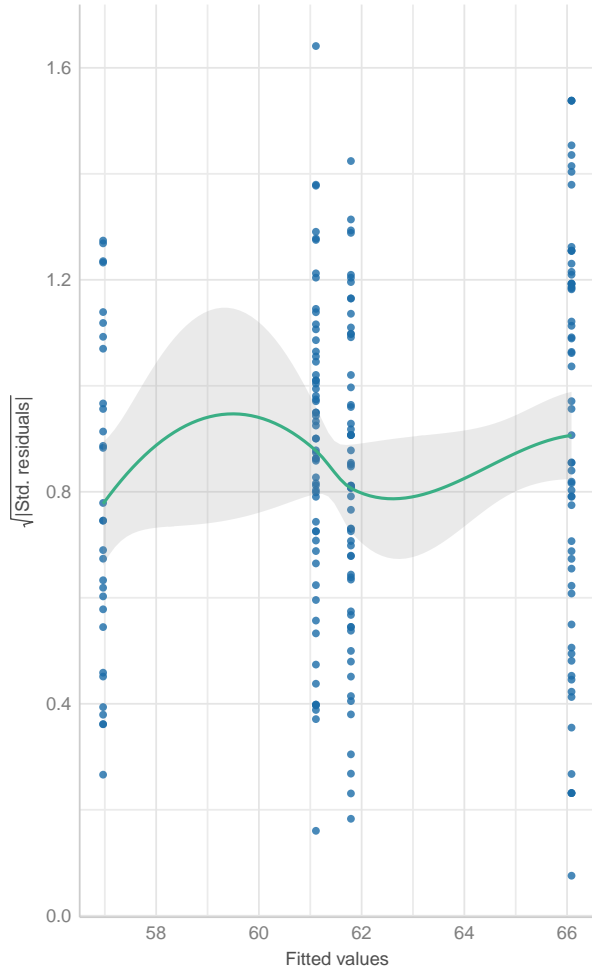


# **Effects of Different Pain Relievers and Dosages on Cognitive Retention**

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Vanshika Vanshika      Jena Shah

February 27, 2025

Homogeneity of Variance  
Reference line should be flat and horizontal



Normality of Residuals  
Distribution should be close to the normal curve

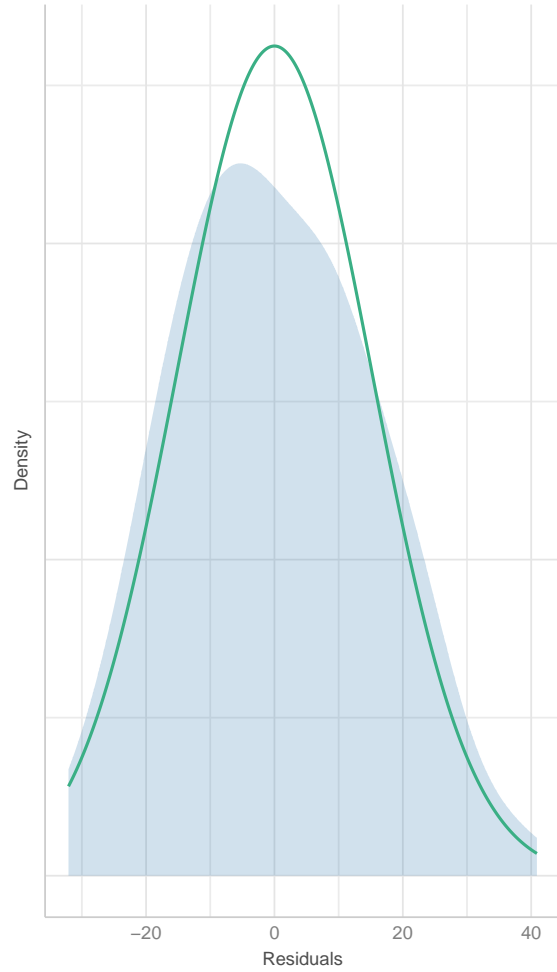


Figure 1: Assumption Check for Time taken after taking the Drug

Table 1: Mean Improvement in Game Scores by Drug

drug	Mean_Improvement	SD_Improvement	Median_Improvement
Aspirin	-1.581667	5.278723	-1.55
Paracetamol	1.713333	5.249551	1.30
Placebo	-1.086667	5.754263	-0.95
Tramadol	-0.415000	6.014836	-1.25

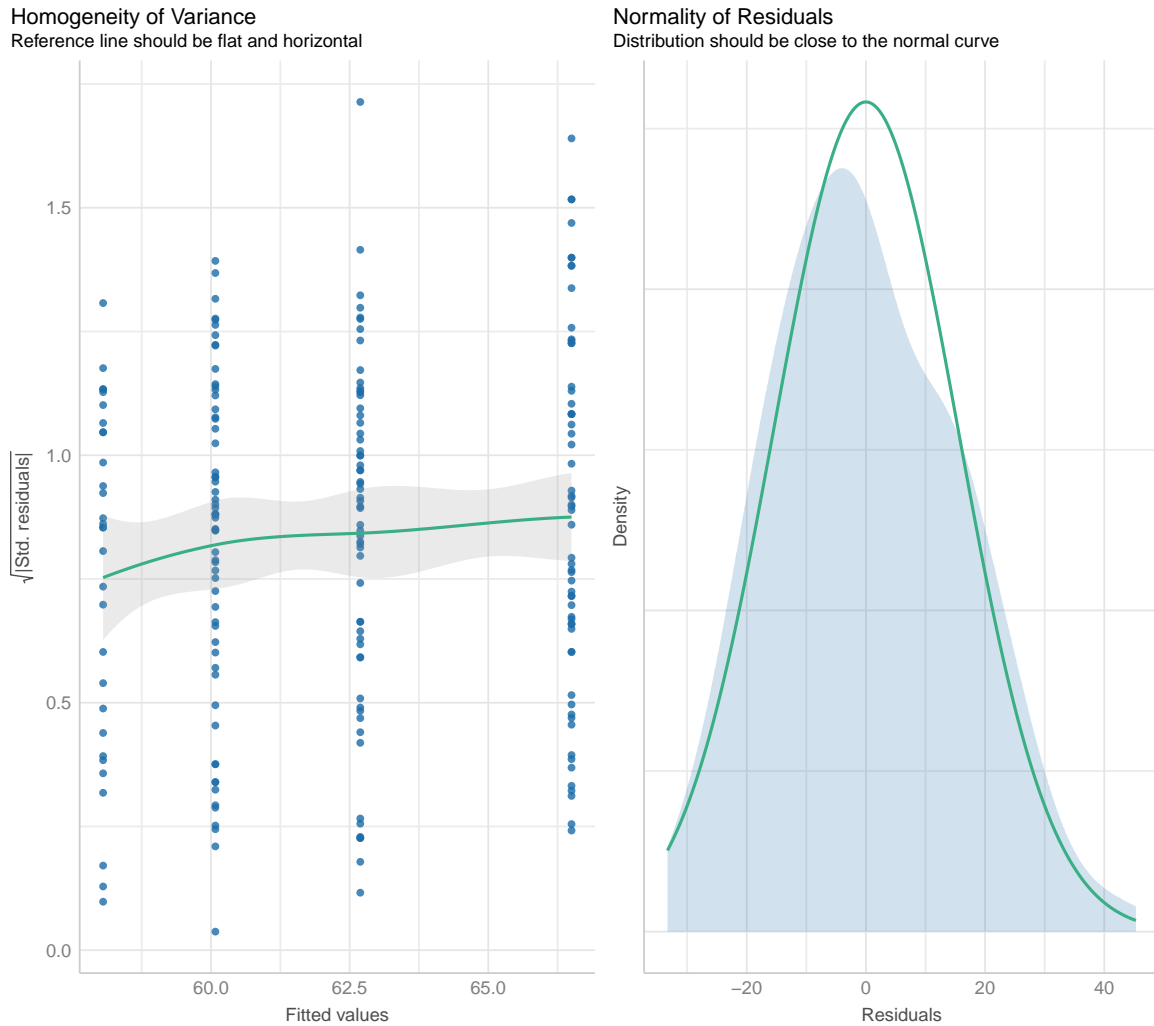


Figure 2: Assumption Check for Time taken before taking the Drug

Table 2: Summary Statistics for Quantitative Variables

Statistic	Game_Before	Game_After	Cards_Before	Cards_After
Mean	62.37095	62.13476	8.128571	8.042857
Median	60.50000	61.10000	9.000000	9.000000
SD	15.73766	15.48217	1.918842	1.917702
IQR	23.07500	23.22500	3.000000	2.750000

Table 3: Summary of Drug Types

Drug	Count	Percentage
Aspirin	60	28.57
Paracetamol	60	28.57
Placebo	30	14.29
Tramadol	60	28.57

## 1 Introduction

Table 4: Summary of Dosage Levels

Dosage	Count	Percentage
High	90	50
Low	90	50

Table 5: Summary of Locations

Location	Count	Percentage
Arcadia	60	28.57
Hayarano	30	14.29
Nelson	30	14.29
Reading	30	14.29
Shinobi	30	14.29
Talu	30	14.29

Table 6: Summary of Age Groups

Age_Group	Count	Percentage
18-34	70	33.33
35-50	70	33.33
50+	70	33.33

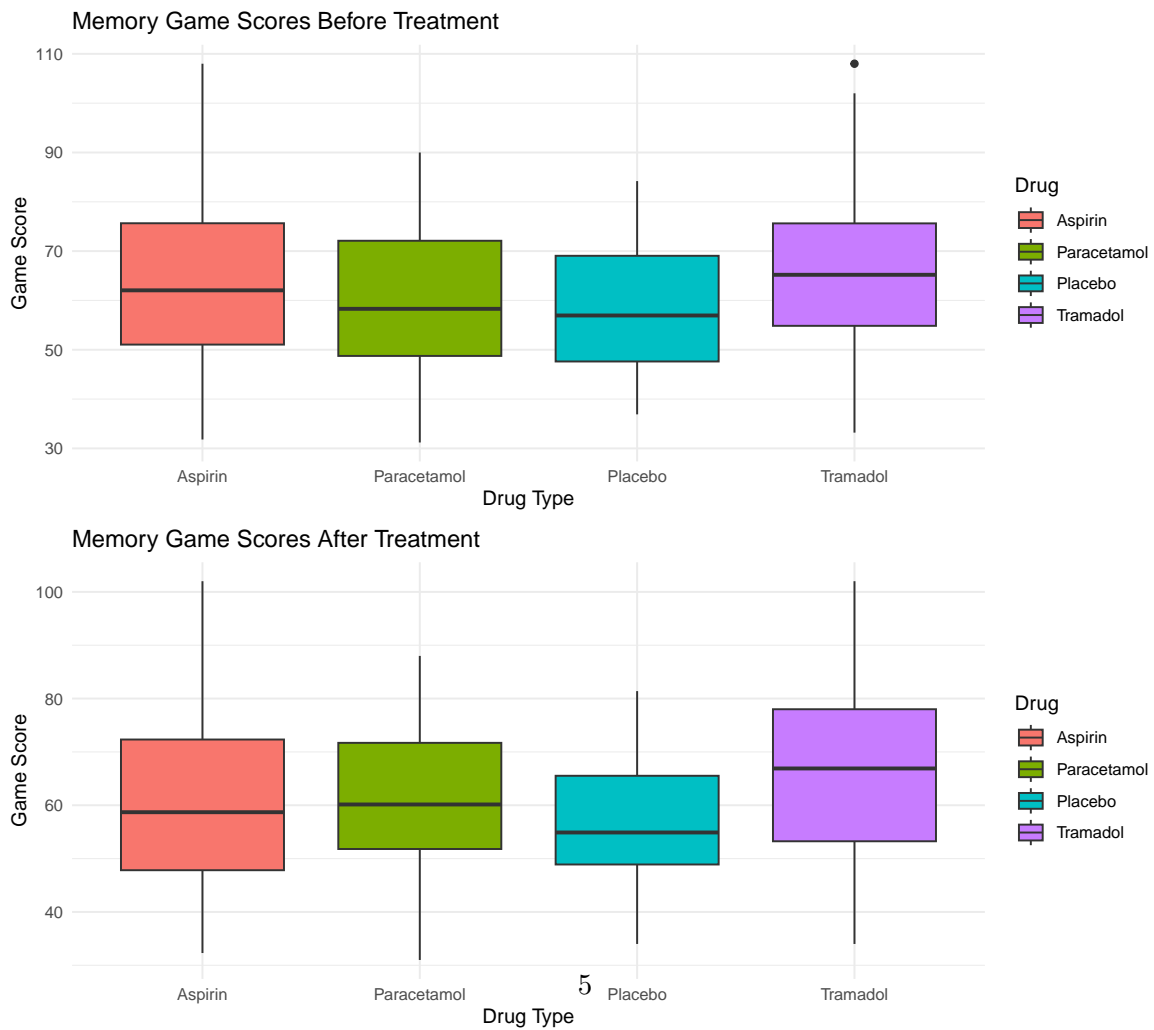


Figure 3: Boxplot of Game Scores Before and After by Drug

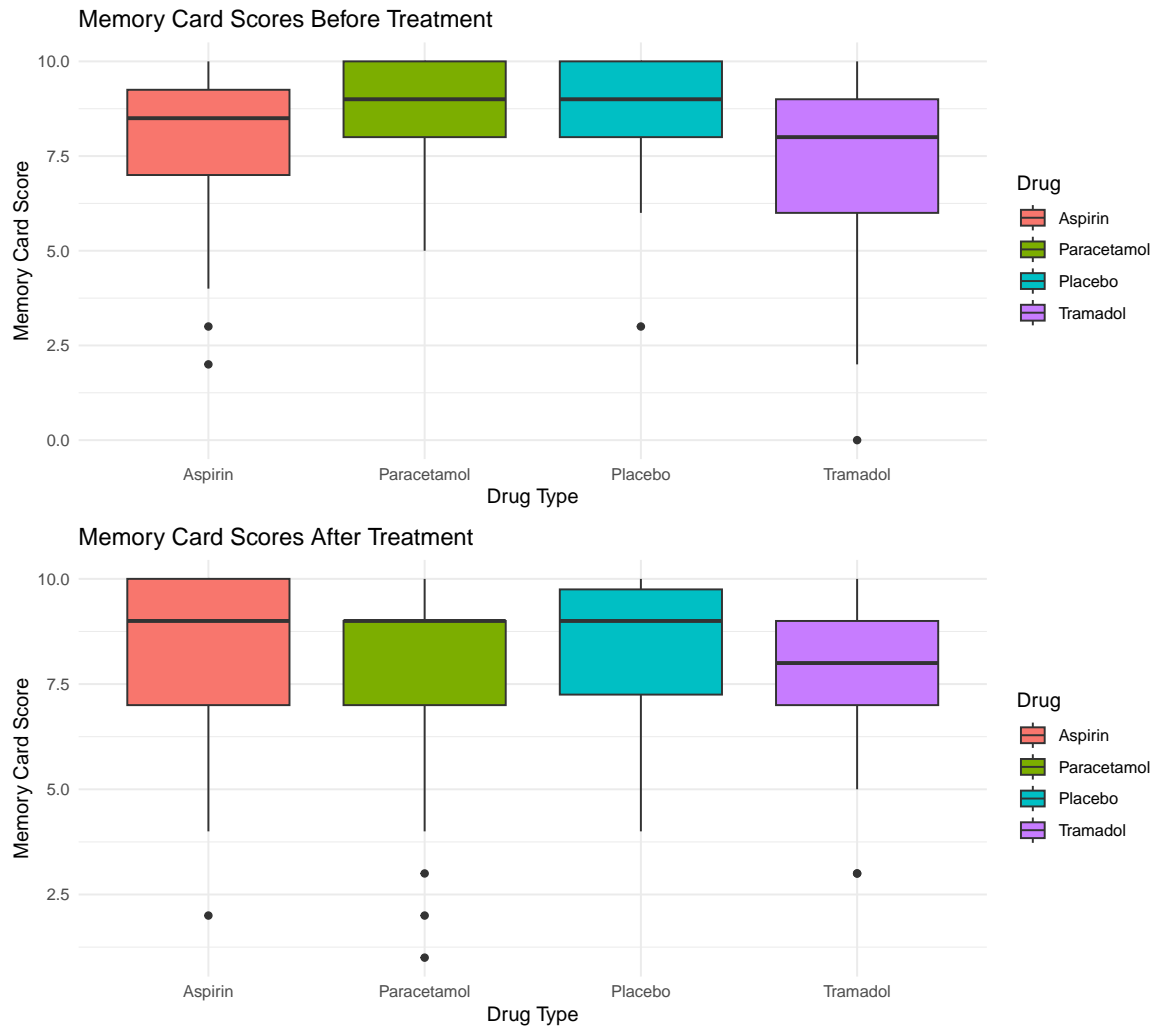


Figure 4: Boxplot of Memory Card Scores Before and After by Drug

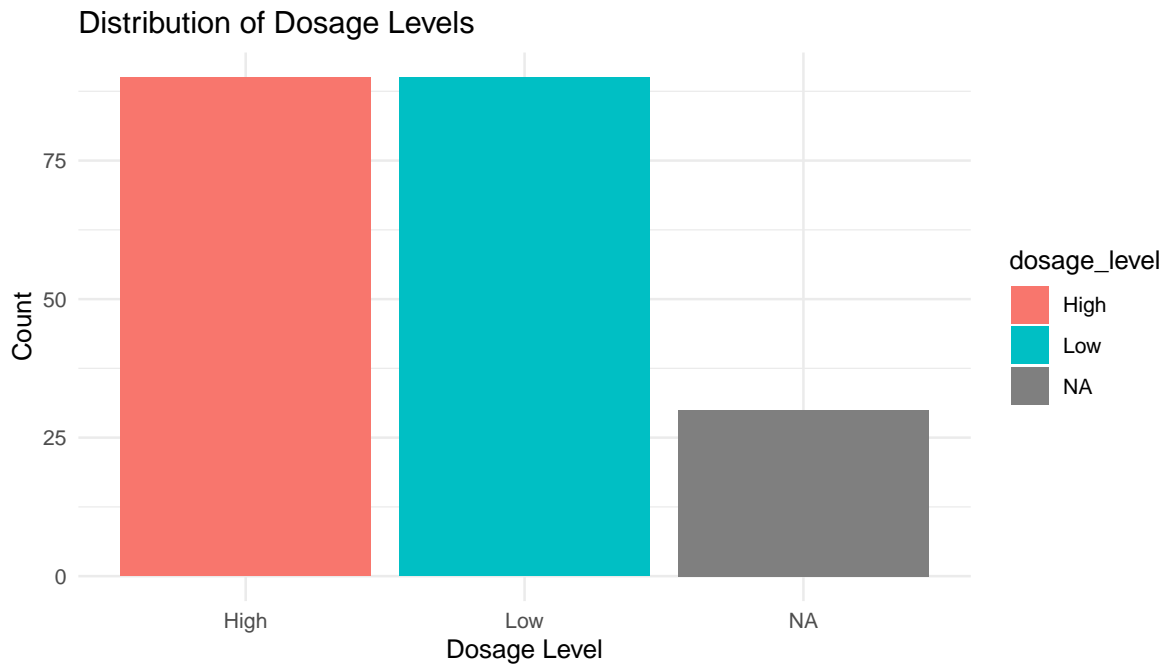


Figure 5: Distribution of Dosage Levels

## 2 References