

# How to fix `mapping` must be created by `aes()` in R?

Authored by  
**stats writer**

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## RECOMMENDED CITATION

stats writer (2024). *How to fix `mapping` must be created by `aes()` in R?*.

PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=144048>

**Fix in R: error: `mapping` must be created by `aes()`**

**One error you may encounter when using R is:**

**Error: `mapping` must be created by `aes()`**

This error occurs when you attempt to use the `aes()` argument when creating a plot in `ggplot2` and use it in the incorrect place or use it without the 'mapping' syntax.

The following example shows how to fix this error in practice.

How to Reproduce the Error

Suppose we attempt to create a boxplot using `ggplot2`:

```
library(ggplot2)
```

```
#create data
```

```
df <- data.frame(y=c(2, 3, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 16,  
19, 28),
```

```
x1=c(1, 2, 2, 3, 5, 6, 8, 8, 9, 9, 10, 11, 12, 15, 15),
```

```
x2=c(8, 7, 7, 6, 6, 4, 3, 5, 4, 6, 5, 4, 3, 2, 2))
```

```
#attempt to create boxplot for 'x1' variable
```

```
ggplot() +  
geom_boxplot(df, aes(x=x1))
```

**Error: `mapping` must be created by `aes()`**

We receive an error because the `aes()` argument is used in the `geom_boxplot()` function without using the 'mapping' syntax.

How to Fix the Error

There are two ways to fix this error.

**Method 1: Use 'mapping' Syntax**

One way to fix the error is to specifically use the 'mapping' syntax in front of the `aes()` argument:

```
library(ggplot2)
```

```
#create data
```

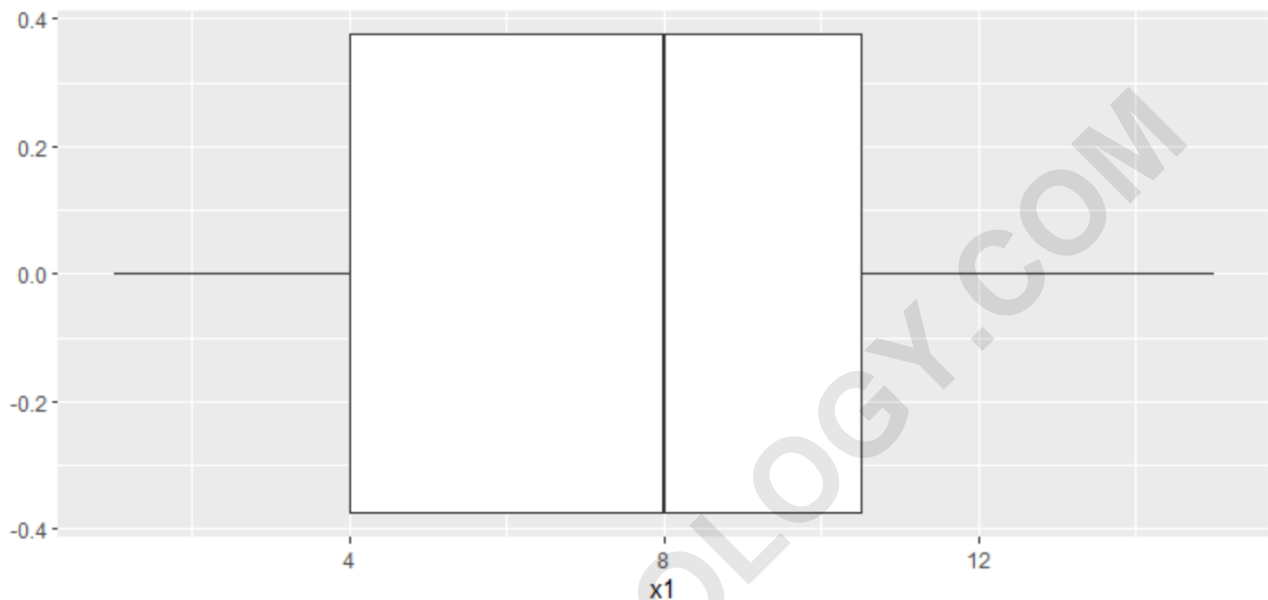
```
df <- data.frame(y=c(2, 3, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 16,  
19, 28),
```

```
x1=c(1, 2, 2, 3, 5, 6, 8, 8, 9, 9, 10, 11, 12, 15, 15),
```

```
x2=c(8, 7, 7, 6, 6, 4, 3, 5, 4, 6, 5, 4, 3, 2, 2))
```

```
#create boxplot for 'x1' variable
```

**ggplot() +  
geom\_boxplot(df, mapping=aes(x=x1))**



**Since we explicitly used the mapping syntax, we avoided any error.**

**Method 2: Use 'aes' in ggplot Function**

**Another way to fix this error is to use the aes() argument within the ggplot() function:**

```
library(ggplot2)
```

```
#create data
```

```
df <- data.frame(y=c(2, 3, 3, 4, 5, 5, 6, 7, 8, 8, 9, 10, 16,
```

**19, 28),**

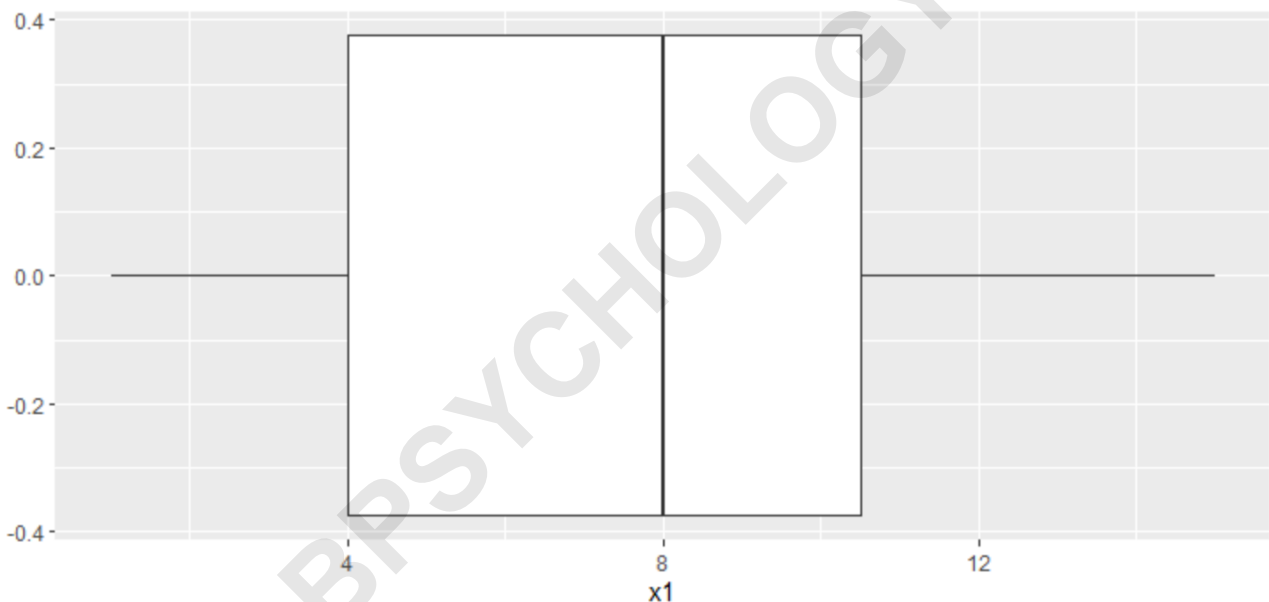
**x1=c(1, 2, 2, 3, 5, 6, 8, 8, 9, 9, 10, 11, 12, 15, 15),**

**x2=c(8, 7, 7, 6, 6, 4, 3, 5, 4, 6, 5, 4, 3, 2, 2))**

**#create boxplot for 'x1' variable**

**ggplot(df, aes(x=x1)) +**

**geom\_boxplot()**



**We're able to successfully create the boxplot and avoid any errors because we used the aes() argument within the ggplot() function.**

**The following tutorials explain how to fix other common errors in R:**