

How can I change the legend title in ggplot2?

Authored by
stats writer

April 20, 2024

RECOMMENDED CITATION

stats writer (2024). *How can I change the legend title in ggplot2?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=137485>

The process of changing the legend title in ggplot2 involves utilizing the "labs()" function and specifying the desired title within the "fill" or "color" argument. This function allows for the customization of the legend title, as well as other features such as axis labels and plot titles, providing a more visually appealing and informative graph. By following this procedure, one can easily modify the legend title in ggplot2 to better represent the data being presented.

Change the Legend Title in ggplot2 (With Examples)

There are two easy ways to change the legend title in a ggplot2 chart:

Method 1: Use labs()

```
ggplot(data, aes(x=x_var, y=y_var, fill=fill_var)) +  
geom_boxplot() +  
labs(fill='Legend Title')
```

Method 2: Use scale_fill_manual()

```
ggplot(data, aes(x=x_var, y=y_var, fill=fill_var)) +  
geom_boxplot() +  
scale_fill_manual('Legend Title', values=c('color1',  
'color2'))
```

This tutorial shows examples of how to use these two methods in practice.

Method 1: Change Legend Title Using labs()

The following code shows how to create a **grouped boxplot** for a given dataset:

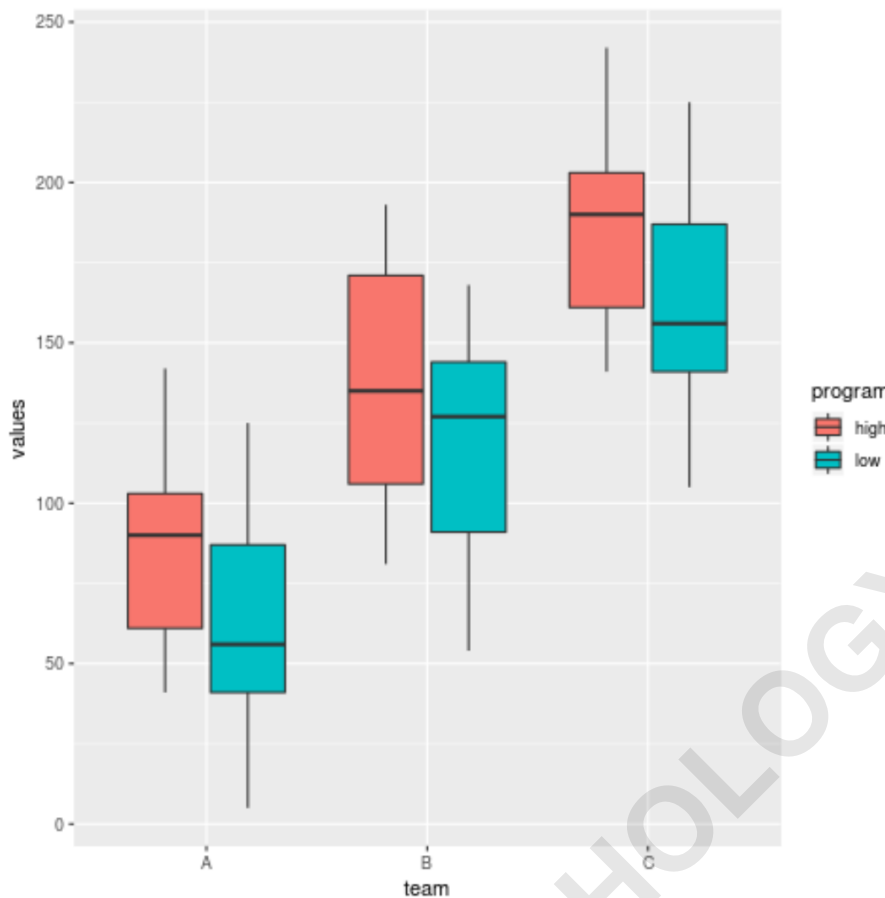
```
library(ggplot2)
```

```
#create dataset
```

```
data <- data.frame(team=rep(c('A', 'B', 'C'), each=50),  
program=rep(c('low', 'high'), each=25),  
values=seq(1:150)+sample(1:100, 150, replace=TRUE))
```

```
#create boxplot
```

```
ggplot(data, aes(x=team, y=values, fill=program)) +  
geom_boxplot()
```



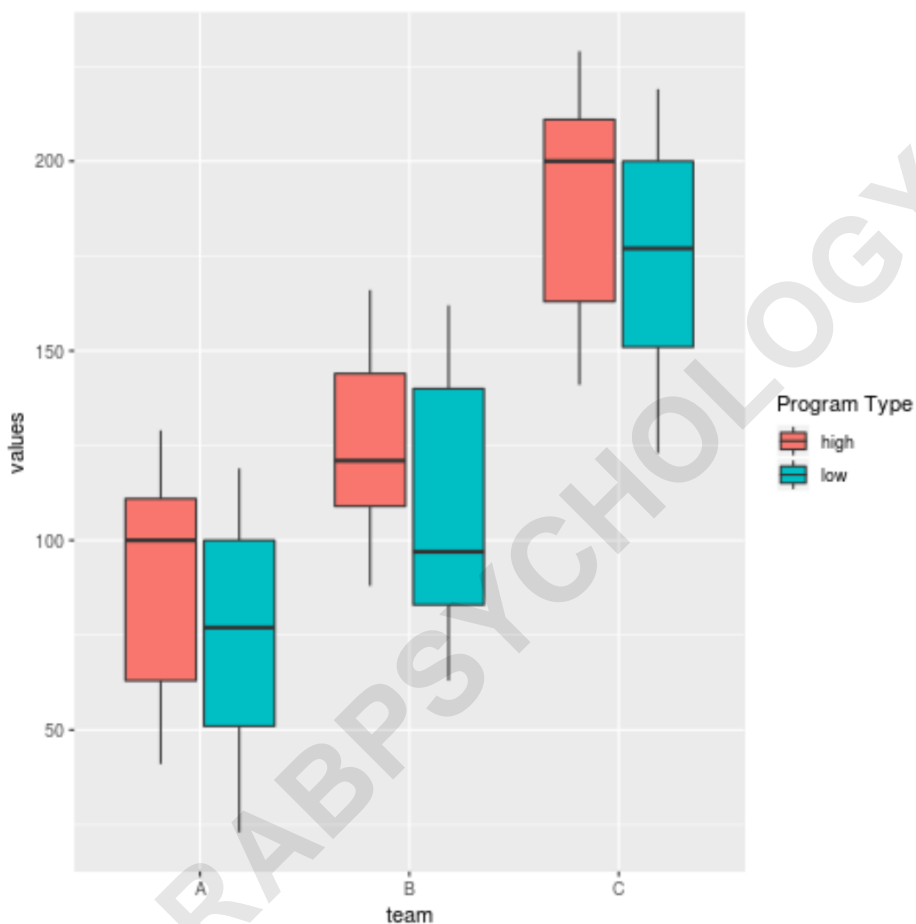
By default, ggplot2 uses the variable name in the dataset as the legend title. However, we can use the `labs()` function to easily change it:

```
library(ggplot2)
```

```
#create dataset
```

```
data <- data.frame(team=rep(c('A', 'B', 'C'), each=50),  
program=rep(c('low', 'high'), each=25),  
values=seq(1:150)+sample(1:100, 150, replace=TRUE))
```

```
#create boxplot  
ggplot(data, aes(x=team, y=values, fill=program)) +  
geom_boxplot() +  
labs(fill='Program Type')
```



We can also add a line break in the legend title by placing `n` wherever we'd like the new line to start:

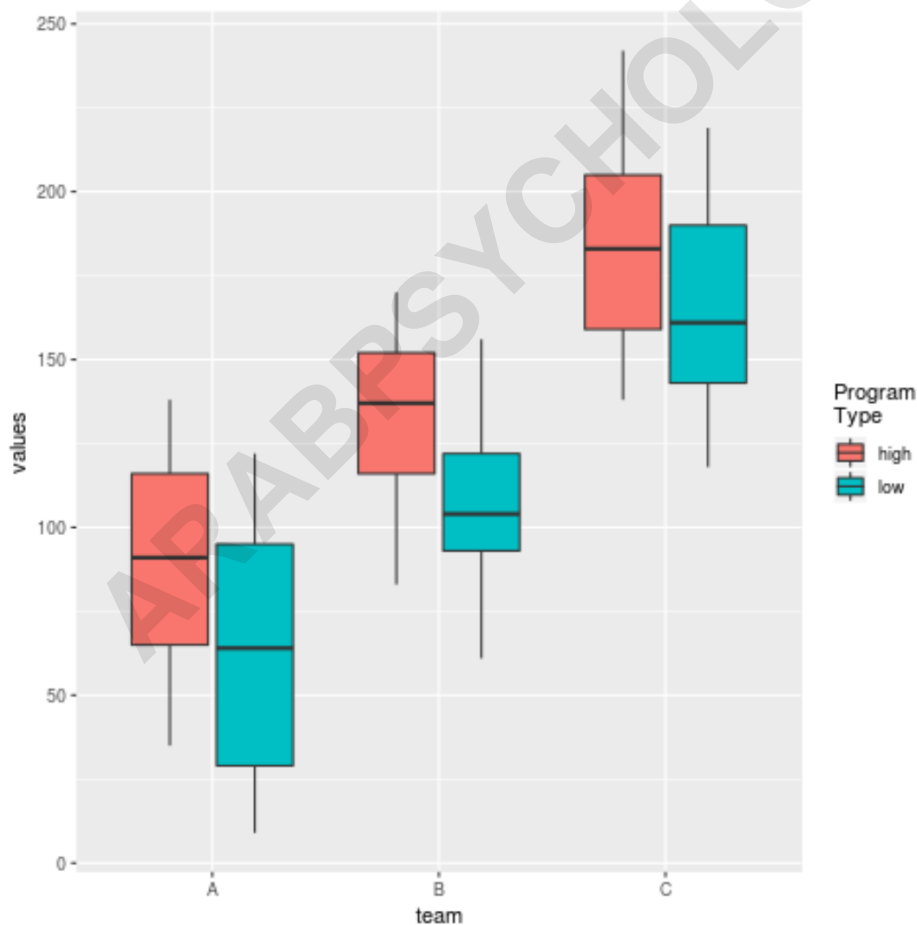
```
library(ggplot2)
```

#create dataset

```
data <- data.frame(team=rep(c('A', 'B', 'C'), each=50),  
program=rep(c('low', 'high'), each=25),  
values=seq(1:150)+sample(1:100, 150, replace=TRUE))
```

#create boxplot

```
ggplot(data, aes(x=team, y=values, fill=program)) +  
geom_boxplot() +  
labs(fill='ProgramnType')
```



Method 2: Change Legend Title Using scale_fill_manual()

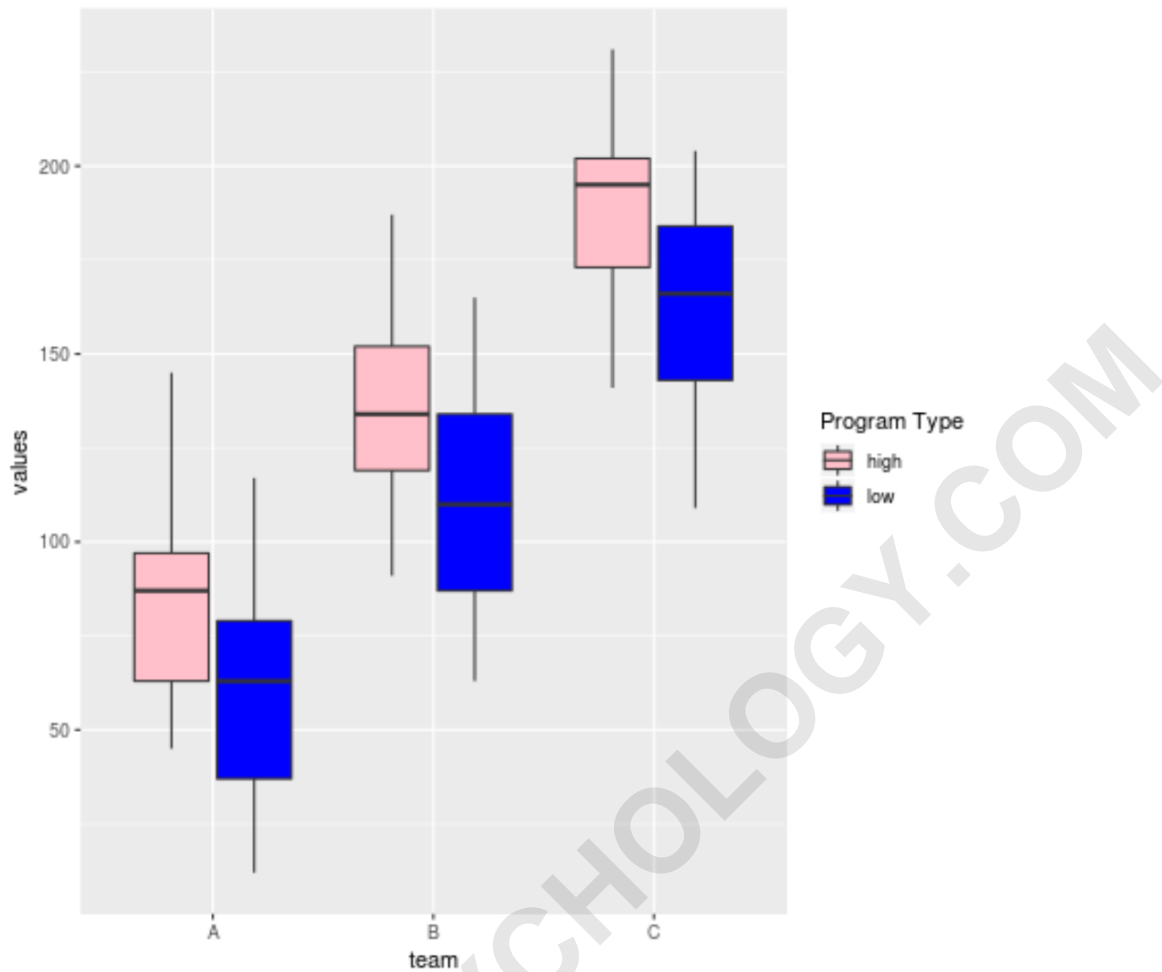
```
library(ggplot2)
```

```
#create dataset
```

```
data <- data.frame(team=rep(c('A', 'B', 'C'), each=50),  
program=rep(c('low', 'high'), each=25),  
values=seq(1:150)+sample(1:100, 150, replace=TRUE))
```

```
#create boxplot
```

```
ggplot(data, aes(x=team, y=values, fill=program)) +  
geom_boxplot() +  
scale_fill_manual('Program Type',  
values=c('pink','blue'))
```



Note that the values for the colors can either be names or hex color codes.

[A Complete Guide to the Best ggplot2 Themes](#)

[The Complete Guide to ggplot2 Titles](#)

[How to Create Side-by-Side Plots in ggplot2](#)