World Happiness Report

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World Happiness Report

Data from the World Happiness Report, 2019

The goal of this analysis is to look for general trends in the World Happiness Report. I will be looking at four different variables and how they affect the overall score: GDP per capita, life expectancy, perception of corruption, and generosity.

Load appropriate packages

```
library(tidyverse)
```

```
## ── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──
## ✔ dplyr     1.1.2     ✔ readr     2.1.4
## ✔ forcats   1.0.0     ✔ stringr   1.5.0
## ✔ ggplot2   3.4.2     ✔ tibble    3.2.1
## ✔ lubridate 1.9.2     ✔ tidyr     1.3.0
## ✔ purrr     1.0.1
## ── Conflicts ────────────────────────────────────────── tidyverse_conflicts() ──
## ✖ dplyr::filter() masks stats::filter()
## ✖ dplyr::lag()    masks stats::lag()
## ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflic
ts to become errors
```

Load data

```
world19.df <- read_csv('2019.csv')
```

```
## Rows: 156 Columns: 9
## ── Column specification ────────────────────────────────────────────────────────
## Delimiter: ","
## chr (1): Country or region
## dbl (8): Overall rank, Score, GDP per capita, Social support, Healthy life e...
##
## ℹ Use `spec()` to retrieve the full column specification for this data.
## ℹ Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

Get an overview of the dataset

```
head(world19.df)
```

```
## # A tibble: 6 × 9
##   `Overall rank` `Country or region` Score `GDP per capita` `Social support`
##            <dbl> <chr>               <dbl>            <dbl>            <dbl>
## 1              1 Finland              7.77             1.34             1.59
## 2              2 Denmark              7.6              1.38             1.57
## 3              3 Norway               7.55             1.49             1.58
## 4              4 Iceland              7.49             1.38             1.62
## 5              5 Netherlands          7.49             1.40             1.52
## 6              6 Switzerland          7.48             1.45             1.53
## # ℹ 4 more variables: `Healthy life expectancy` <dbl>,
## #   `Freedom to make life choices` <dbl>, Generosity <dbl>,
## #   `Perceptions of corruption` <dbl>
```

Remove spaces from columns to prepare for visualization

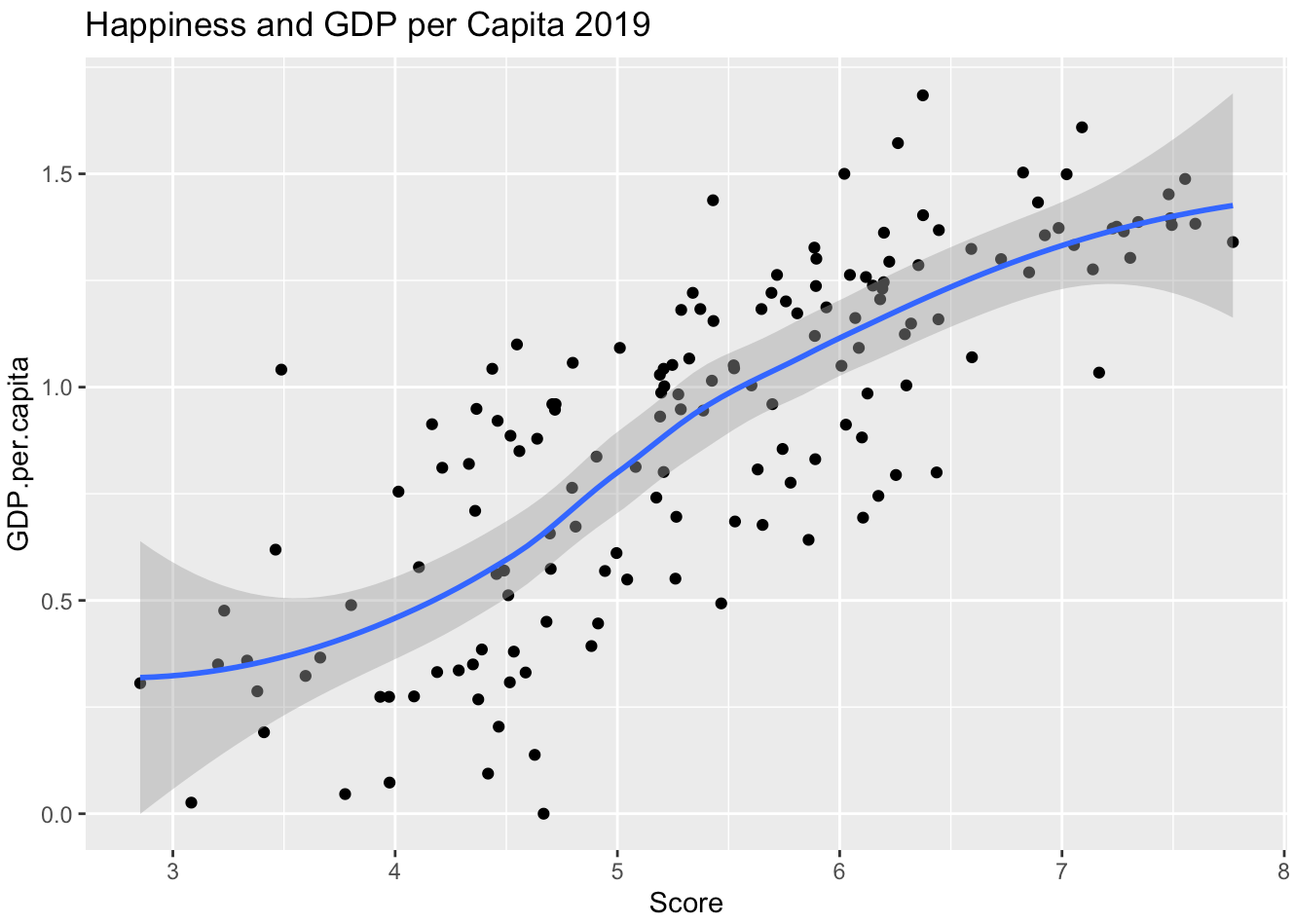
```
names(world19.df) <- make.names(names(world19.df),unique=TRUE)
```

Visualize the data to look for trends

Correlation between Score and GDP per capita

```
ggplot(data=world19.df, mapping=aes(x=Score, y=GDP.per.capita))+
 geom_point()+
  geom_smooth(level=0.99)+
  labs(title='Happiness and GDP per Capita 2019')
```

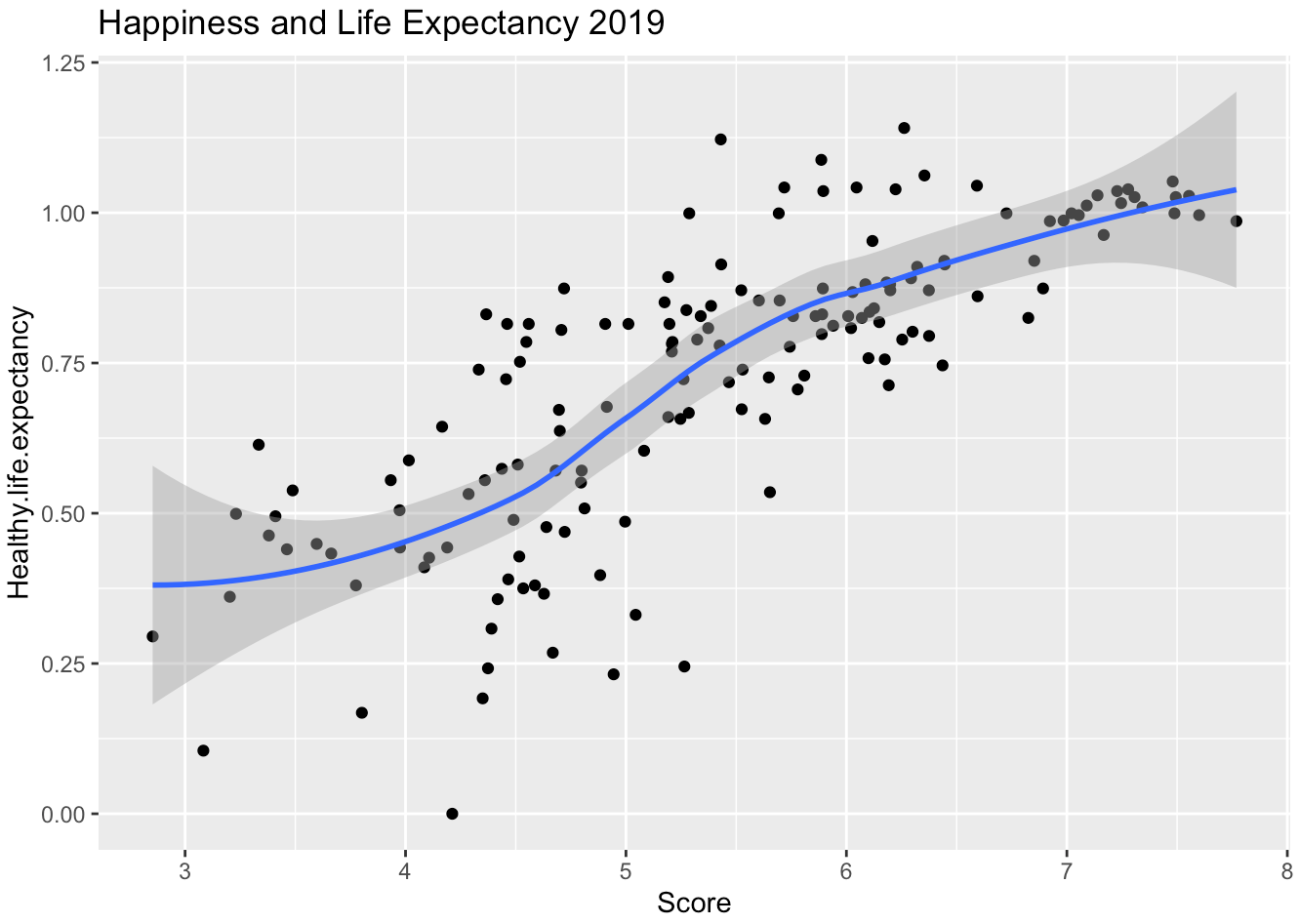
```
## `geom_smooth()` using method = 'loess' and formula = 'y ~ x'
```



Correlation between Score and Life Expectancy

```
ggplot(data=world19.df, mapping=aes(x=Score, y=Healthy.life.expectancy))+
 geom_point()+
  geom_smooth(level=0.99)+
  labs(title='Happiness and Life Expectancy 2019')
```

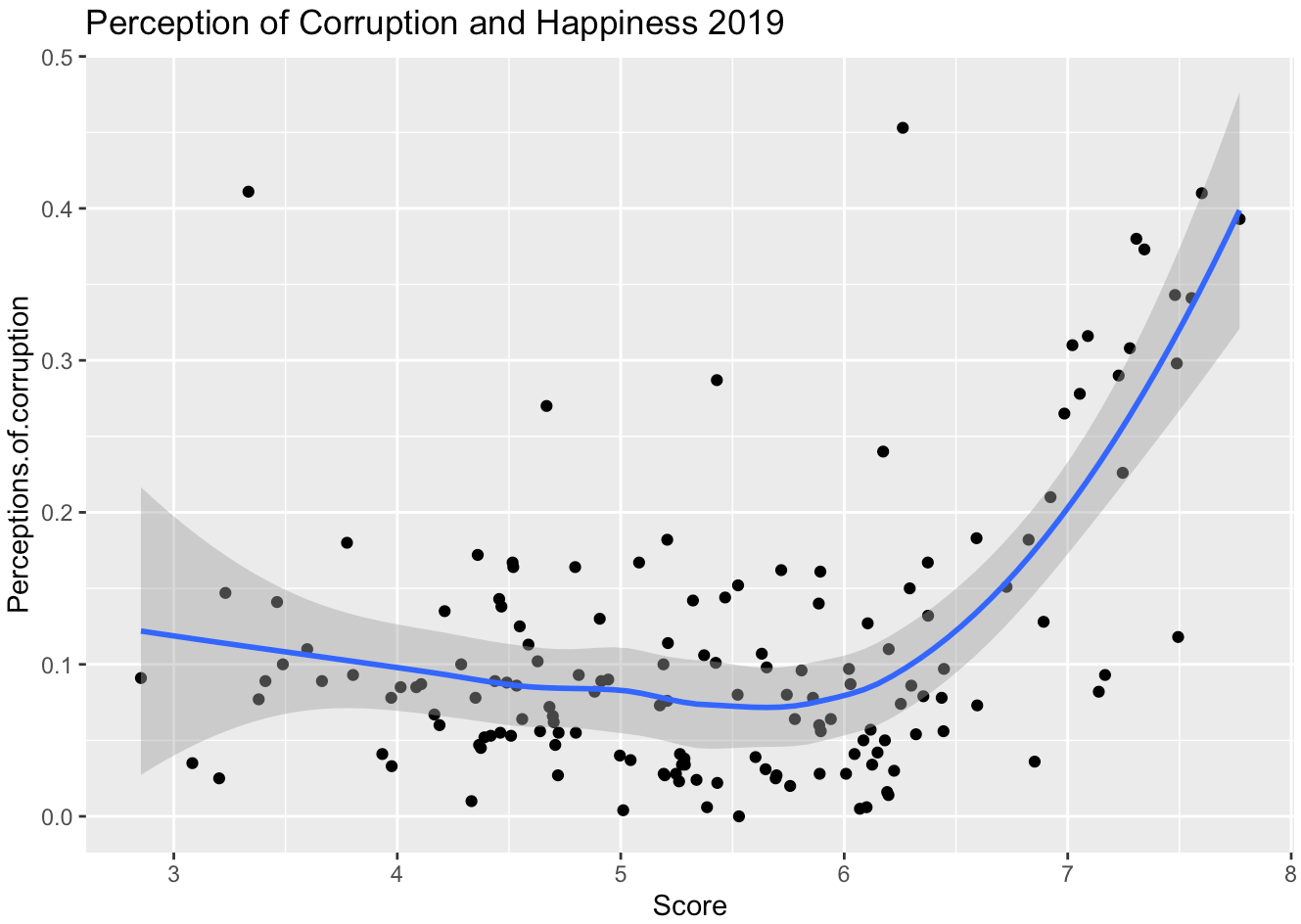
```
## `geom_smooth()` using method = 'loess' and formula = 'y ~ x'
```



Correlation between Score and Perceptions of corruption

```
ggplot(data=world19.df, mapping=aes(x=Score, y=Perceptions.of.corruption))+
  geom_point()+
  geom_smooth(level=0.99)+
  labs(title='Perception of Corruption and Happiness 2019')
```

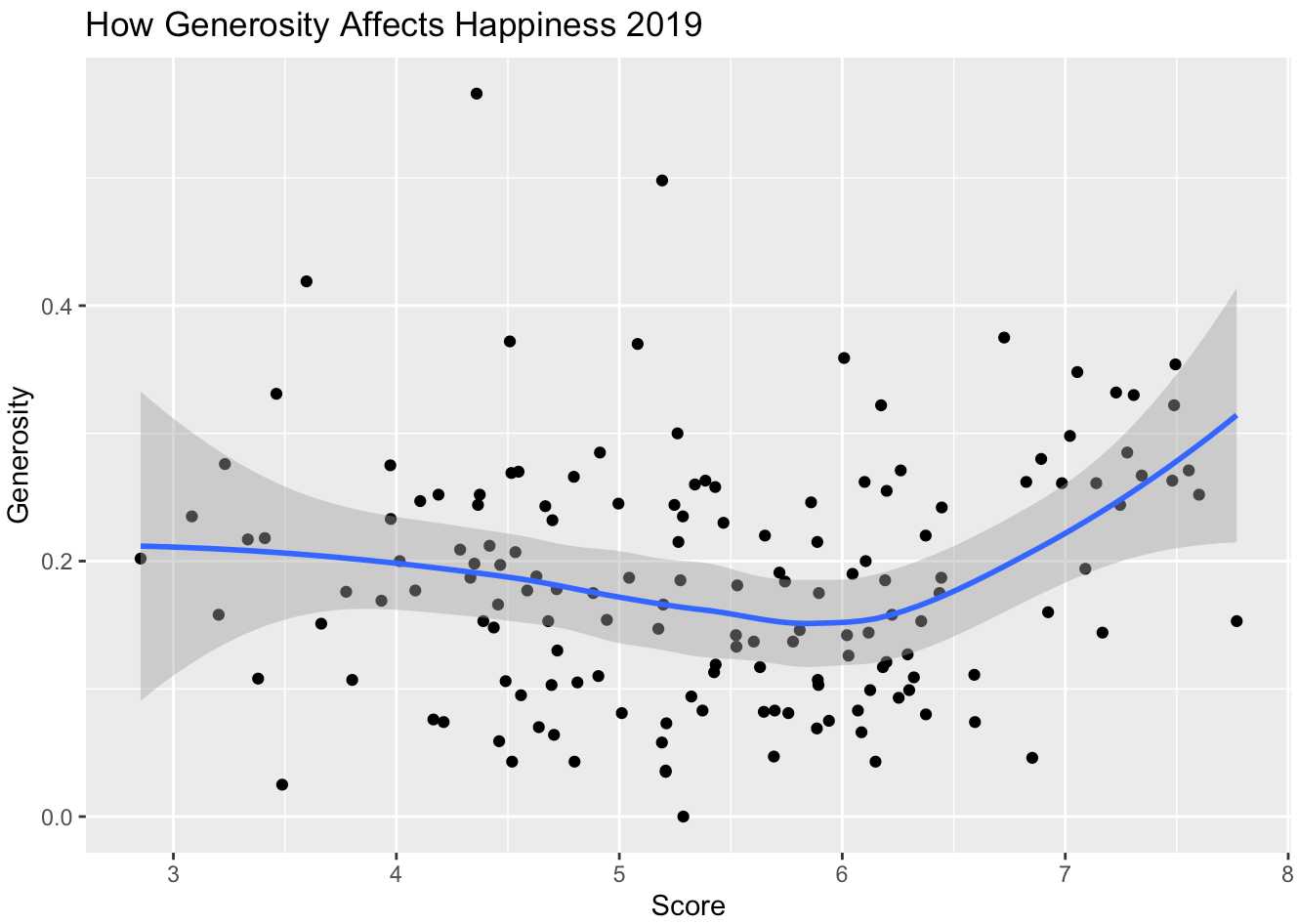
```
## `geom_smooth()` using method = 'loess' and formula = 'y ~ x'
```



Correlation between Score and Generosity

```
ggplot(data=world19.df, mapping=aes(x=Score, y=Generosity))+
  geom_point()+
  geom_smooth(level=0.99)+
  labs(title='How Generosity Affects Happiness 2019')
```

```
## `geom_smooth()` using method = 'loess' and formula = 'y ~ x'
```


How Generosity Affects Happiness 2019
Generosity
0.4
0.2
0.0
3
4
5
6
7
8
Score