

World Happiness Report

Story Version:

Story Base Version: (have no record updated to primary version)

Story Primary Version: [story_v1](#)

Story Final Version: [story_final](#)

Summary:

During the lesson I was so impressed by the animation of world happiness data over time, I wanted to explore it myself, So I picked the World Happiness data for recent years (2015,2016 &2017).

In this we mainly focus on the Happiness of USA comparing with attributes relating other countries. So I split up the entire analysis phase into various sections.

Card 1: USA Happiness Decreases over Time (main Story)

Card 2: Happiness of Regions Over the Years (supporting Story)

Card 3: Factors influencing Happiness (supporting Story)

Card 4: Healthy Life have significant influence over Happiness (supporting Story)

Card 5: Money influences in some factor(supporting Story)

Card 6: World Happiness Ranking (supporting Story)

I wondered what make the people happy, Is it the money they earn makes them happier, or the healthy life makes them happy, the freedom/Support from their family which they have to do things makes them happy or the Generosity/Trust from Government on their people makes the country the happiest in the world.

Card 1:

To Start of with I visualized the dataset to list out the happiness worldwide incorporating the population data and filtered it using the year and region. It was surprising to see that many countries happiness varies over the years. Interestingly I found that USA is being unhappy over the years. USA being the world leader and Trend setter, I was curious to know what factor make USA unhappy and how well other countries are performing in the Happiness Race.

Design Note: In this card USA has been highlighted to show the focus is on USA. The card can be interacted and compared with other countries by deselecting/clicking anywhere on the screen.

Card 2:

Now that we focus on USA I thought of having a look at other regions as well to find out where USA stands in the global market. So I grouped the Happiness score region wise and visualized in a map to outlook the performance. I also wanted to check whether a country is performing well or not so I included a line graph showing the Happiness over time (Decrease in the happiness scores are denoted by red and increase in happiness score are denoted by blue). I found that the North American ranks 2nd region wise still its happiness decreases by a small fraction over the years. On looking the year 2015 North America and Australia & New Zealand were so close with a very minute variation but over the time North America is performing poorly. I decided to inspect all the factors influence for Happiness.

Design Note: In this card Happiness Score by Region groups the happiness scores region wise to compare performance and the map shows the happiness scores over the years. The performance of specific countries can be analysed individually with year filter and region filter.

Card 3:

Thus to find the underlying reason behind happiness and the downfall of USA happiness I incorporated all the factors influencing the Happiness to compare how countries are performing. Interestingly I found out that USA has increased their GDP per capita and steady decrease in Life Expectancy and Trust towards Government, Its also obvious that the Freedom, Family and Generosity fluctuates as its not stable. So I again picked the world's happiest country Switzerland and found that the variation was similar to the factors GDP per Capita and Life Expectancy and many other countries followed the same pattern. This made me more curious to look what's happening with GDP per Capita and Life Expectancy over the countries.

Design Note: In this card all the countries and all the year are displayed in the same card to give the viewer a taste to compare all the factors at the same point. This gives the reader to visual feel of how the trend changes over time and country filter is provided to target a specific county and inspect the factors all in one place.

Card 4:

Now that we focus on analysing Life expectancy, lets have a look at the Rank of Countries having high scores in Health and relate them with the Happiness scores. From the bar chart we figured out that Singapore has the highest Life Expectancy of all which is having

a high happiness score as well but suspiciously Hong Kong, Japan and South Korea which are at the next few ranks hold an average Happiness Score. To inspect the performance, I generated a circle graph depicting the happiness rate as colour population as shape and find the relationship of Happiness with Health. It seems that Singapore being the Healthiest country is not the Happiest country while in Switzerland it takes the top rank trading off some of the health with other parameters. And there was a tough competition between Hongkong and Singapore as in the year 2016 Hong Kong replaced Singapore position but in the next year Singapore took the lead. USA being, our Country of Interest from the year 2015 to 2016 and 2017 the rank of the country being pushed down/ overtook by excellent performance of Chile. This being said, after analysing its really hard to tell that Healthy life is a major reason for Happiness but there is a significant dependency on Health.

Design Note: In this card A map representation is given to see the global performance, Circle graph is provided to see the performance over years and the bar graph is given to rank the countries

Card 5:

Like the previous graph now we analyse GDP per Capita Income to check how money influence Happiness, lets have a look at the Rank of Countries having high scores in Income and relate them with the Happiness scores. From the bar chart we figured out that Qatar has the highest GDP per capita of all which is having a high happiness score as well but suspiciously Hong Kong being an outlier holding an average Happiness Score. Similar to the previous Card to inspect the performance I generated a circle graph depicting the happiness rate as colour population as shape and find the relationship of Happiness with Income. It seems that Qatar being the Richest country is not the Happiest country while in Norway it takes the top rank trading off some of the health with other parameters. Luckily USA hold the same ranking in all the year. This being said, after analysing its really clear that money has a sufficient influence over Happiness as most of the rich countries are Happier.

Design Note: In this card A map representation is given to see the global performance, Circle graph is provided to see the performance over years and the bar graph is given to rank the countries

Card 6:

At the end we always like to show the happiness based on ranks thus I ranked them in bar graph and found that Switzerland was holding the top position and USA being country of interest holds the 14th position. I also grouped them to High, Average and Low categories on map to see the group performance and found that the central part of the world is performing worse than the others, at the same time I personally felt unhappy to my own country India performs poor in the Happiness index. I personally feel that we good support from the family makes me happy and thus I wanted to see how family contributes to happiness, Thus I

generated a line graph displaying the family contribution for happiness ranking. Surprisingly I found that family has a negative effect on happiness. The less family more happiness.

Design Note: In this card A map representation is given to see the global Happiness ranking, Line graph is provided to see the Happiness rank with Family and the bar graph is given to rank the countries

Summary:

The Happiness can't be based on a single factor every factor has a influence on Happiness to some extent and out of these analysis we can conclude that Money have upper hand than other factors and Family is inversely proportional to the Happiness. USA's happiness doesn't depend on Money or Family but Health played a adverse role in decrement of happiness.

Design:

In the dataset the headers format for the years were not similar so I manually altered them to look alike. The regions column was missing in 2017 dataset so I included them in reference with the 2015/2016 dataset

There was some alteration in axis, titles and tooltip modification enhancement to look more consistent. Apart from which I modified the Happiness score by region from the previous version and rearranged the order to make the story flow easier.

Feedback:

One of my friend suggested to fix axis, titles and legends (primary version)

Mentor suggested to add description in the story card (base version)

Resources:

Happiness Dataset – [Kaggle](#)

Population Dataset – [The World Bank](#)