## **Report:**

- 1. It seems that students' grades are normally distributing for the three topics
- 2. When excellent achievement is set to obtaining grades more that 770
  - China has 158 in math, Singapore has 27 students in science and Japan has 7 students in reading. There are three Asian countries who have the top students in Math, two western countries in science and three Asian countries in reading
  - Asian countries may have their own teaching methodology that assist students to advance in the Math and reading topics., But their methods may have the same strength or less when it comes to science. However, there is weakness in reading all over the world. In other words, STEM students are doing better than students who study literature.
- 1. The sample represents students who have parents from the same culture or they may have different cultural background. This is a significant factor for the result.
- 2. The sample have almost the same percentage of females and males students, but females percentage is slightly higher by 1.4 percentage
- 3. Western countries like Canada and Australia have more students than other countries This may suggest that Western countries may have more students or may have better surveying techniques. It is interesting to find that China, and Japan or Asian countries have smaller students' populations although their students did well in the excellent achiever visualization
- 4. Again, the top four countries which were above the mean value were Asian countries (math topics). It is interesting that Florida of USA did below average.
- 5. When it comes to multi-talented. It seems that New Zealand is the only country that has all talents, and Singapore has more talents when two skills are combined together and it has significant number
- 6. It was found that boys did better in math, while girls did better in reading and both achieved the same in the science. Number of girls in the middle of the histogram was much higher than boys. It is possible that the missing data were connected to boys, and it is possible that some boys faild
- 7. The mean score of three topics are positively and strongly correlated with each others. This means if someone is excellent in one subject, he will be automatically good in other two subjects, but this is not true for top achiever thou. There is no significant observed when it comes to gender

Grades in each subjects are between 300 and 600 points. There is a small portion that did not do well, and their range is between 100 and 300. Top achievers grades were between 600 and 800 points