Math In My Life Project

Fall 2020

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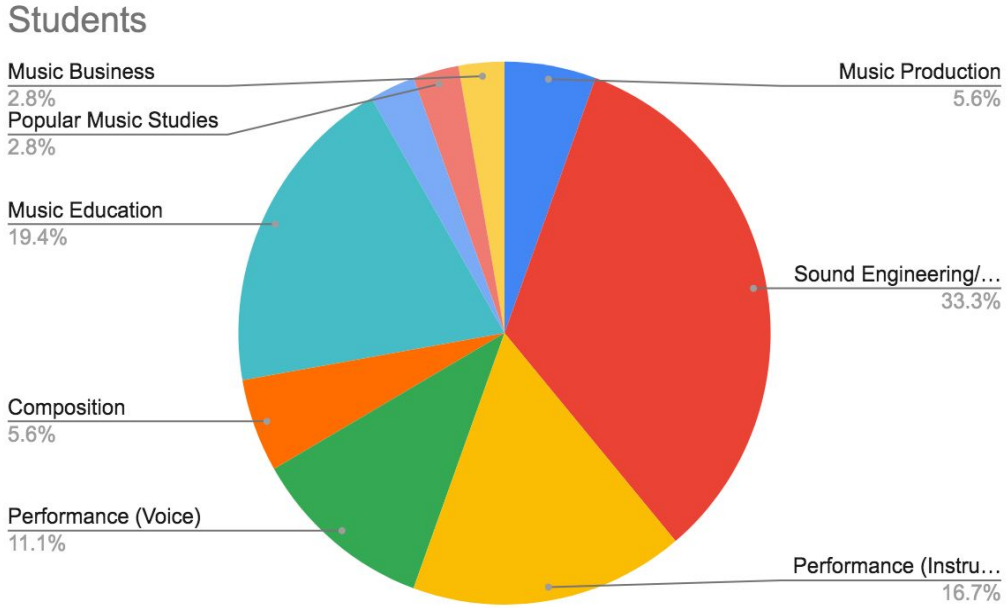
Presenting Data, Percents

I was curious to know what my fellow music majors were majoring in. I posted an open survey on my facebook page and also gathered info from my music theory class. I had 36 responses and the data is shown in the pie chart to the right. I used a spreadsheet to create this chart. This was a really great way to get to know my classmates and community better!



Presenting Data, Percents: Concept Overview & Application

In order to present the data I had collected, I had to consider my different graph/chart options. I decided that a pie graph would be best suited to represent my data. I wanted to see how many out of the whole were representative of the relative frequency of my categories. In this case the categories were the different types of music majors.

Since I had 36 total responses, this number represented 100% of my total responses. All relative frequencies of my categorical data were then divided part/whole, the frequency being the part and the whole being 36. For example, 2 students were composition majors:

2/36=.0555

This become 5.6 percent, as represented in the pie chart on the previous slide. The same formula was applied to all frequencies to complete the chart.

Mean, Median, Mode

In my survey I asked the performance majors, both instrumental and voice, how many hours a day they practiced. The frequency table to the right shows my findings. I was curious what the average amount was since I am a performance major as well and practice 1 hr a day. I wanted to know how I might compare to others.

Mean: 3.2 Hours

Median: 2 Hours

Mode: 2 Hours

I found that I actually practice less than the average performance major! This was interesting and startling news!

Hours Practiced	SUM of Music Majors
1 Hr	4
2 Hrs	5
3 Hrs	2
4 Hrs	2
Less than 1	3
Grand Total	**16**

Mean, Median, Mode Concept Overview & Application

Finding the mean, median and mode of a a group of data is a great way to summarize one's findings. To find the mean, or average, of a data set, you add the sum of the values then divide by the number of values. In this case, 16 was the sum of the values and 5 was the number of values. Divided, this comes to 3.2 hours. To find the median, or center point of the data set, I listed all data and frequency from smallest to largest, starting with 'Less than 1' and ending with '4 hrs'. Then I found the center point, which happened to land in '2 hrs'. Finally, I found the mode, or most frequently occuring value. According to my frequency chart, this value was also '2 hrs'.

Percentage, Percentage Change

I am currently working PR for the Student Production Association here at Lane. We are preparing advertising material and chose to do social media spotlights on the cast and crew. In order to get information, we sent out a survey to each of the 23 cast/crew members. After this first email, 7 completed surveys were collected. After a follow-up email, 6 more were collected. After a third and final email, we received 3 more.

After the first email, we had 30% of the surveys complete.
7/23=.3043

After the second email, we had 57% of the surveys completed.
7+6=13 13/23=.5652

After the final email, we had 70% of the surveys completed.
13+3=16 16/23=.6956

The absolute change between the percentage of completed surveys after the last email compared to the first was an increase of 40%.
70-30=40

The relative change between the percentage of completed surveys after the last email compared to the first was an increase of 133%.
40/30=1.3333

In total we only received 70% of the surveys we needed. Looks like some folks won't get their chance in the social media spotlight!