

Storyboarding Statistics for Flipgrid®

Lesson Overview In this lesson, students will work in groups to create a flow map for finding the mean absolute deviation, median, or mean of a set of data. They will use the flow map to create an instructional video for finding the assigned statistical information. Afterwards students will try to complete the given task (mean, median, mean absolute deviations) using another group's video instructions.

Standards Addressed *Content(s) Standard Number(s) and Descriptor(s):*

6.DS.5 c. Give measures of center (median, mean).

6.DS.5.d. Find measures of variability (interquartile range, mean absolute deviation) using a number line.

Computational Thinking

Tool:

Flowcharts

Cornerstone(s) Addressed:

- Decomposition – graphically detailed process for finding mean, median, mean absolute deviation. Students create graphical representations of the steps/processes for calculation. Students must recognize and understand the steps and be able to translate their understanding into directions for others to follow.
- Abstraction – as students determine steps to calculating statistical analysis, they must determine which information is necessary and unnecessary for the explanations and examples. Discerning information to focus on the necessary pieces allow for more cohesive understanding.

Lesson Plan

Time required: two class periods

Focus Question(s): What are the steps needed to accurately find the mean, median, or mean absolute deviation of a set of data?

Disciplinary Vocabulary: mean, median, mean absolute deviation, data, and mode

Materials needed:

- chromebooks with internet access
- Flipgrid® access
- Math notebook
- a card for each group with a statistical topic (mean, median, or mean absolute deviation) and a data set

Engage

Students will watch a short video showing someone attempting to follow directions and taking them too literally. The importance of order, specificity, etc when giving directions will be discussed. The task will be explained, and students will be put into groups and given their statistical topic (mean, median, mean absolute deviation) for which they will create directions.

Explore

Previous to this activity students will have taken notes on mean, median, and mean absolute deviation in their math notebook and have worked with different data sets to practice finding the mean, median, and mean absolute deviation.

Explain

Students will work in groups to create a flow map of directions for the given statistical topic. They can use their math notebook to look back at notes about statistical topics and the given data to guide them. The groups will create a video of their directions using Flipgrid®.

Elaborate

The groups will create a video of their directions using Flipgrid®.

Evaluate

Students will watch at least two other group's videos and follow their directions to complete the statistical task. They will complete a form to give feedback, both positive and negative, to the group on their directions.

Assessment Notes:

Feedback forms will be given to the groups and then turned in to the teacher. Groups will also complete a self-assessment based on reflection for the other group's feedback and their own learning. The self-assessment will use the same feedback form used for other groups. The self-assessment will also be turned in to the teacher.

Teacher Biographical Information

Lesson Author: Debra Horton, math 5th- 7th grades, 25 years' experience

Mean (17, 20, 35, 64, 29, 7)
Median (7, 85, 29, 45, 34, 23, 19)
Mean Absolute Deviation (17, 20, 35, 64, 29, 7)
Mean (78, 24, 32, 10, 21, 8)
Median (67, 53, 45, 29, 13, 34, 24, 45)
Mean Absolute Deviation (32, 45, 31, 3, 67, 26)
Mean (6, 75, 86, 72, 12, 3)
Median (28, 32, 78, 63, 19, 32, 5, 99)
Mean Absolute Deviation (56, 75, 23, 7, 34, 21)

Flipgrid Feedback Form

Group Members who created the Flipgrid:

Group Members providing feedback on the Flipgrid:

0	1	2	3
Not at			Definitely
All			

The Flipgrid’s definition was accurate based on classroom discussions/notes:

0	1	2	3	

The directions in the Flipgrid were organized, in the correct order, and easy to follow:

0	1	2	3
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The directions in the Flipgrid were accurate and there were no mistakes or inaccuracies:

0	1	2	3
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We think the group did a great job with:

We would offer the following suggestions to the group: