



# Mississippi Mathematics Manipulatives Manual Featured Activity



**“InstaFame: Just Follow Me”**

**8.SP.1 & 8.SP.2**

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As we continue our efforts to develop high-quality instructional materials (HQIM) and resources, the Mississippi Department of Education (MDE), through the Academic Education Office, would like to showcase instructional practices and activities that foster conceptual understanding through the use of manipulatives in the mathematics classroom.

The **Mississippi Mathematics Manipulatives Manual** features activities meant to serve as short, hands-on procedures that may be implemented before, during, or after a lesson to support the teaching and learning process of the Mississippi College- and Career-Readiness Standards (MCCRS) for Mathematics. Alignment with the MCCRS Scaffolding Document has been included for additional support. Teachers may contact staff at the MDE if they would like to borrow manipulatives for classroom use.

Teachers may modify these activities to meet the needs of the students they serve and their instructional delivery model (virtual, in-person, or hybrid).

Special Thanks:  
**Courtney Jones, Ed.S.,**  
**Jackson Public School District**

# InstaFame: Just Follow Me

## MANIPULATIVE(S):

- Instagram application
- Instagram account
- Cellphone/ Tablet
- Laptop/Computer



## GRADE LEVEL OR COURSE

### TITLE:

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CCR Mathematics Grade 8

### DOMAIN AND CLUSTER HEADING:

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Statistics and Probability (SP):

Investigate patterns of association in bivariate data

## STANDARD(S):

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**8.SP.1:** Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.

**8.SP.2:** Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.

## PREREQUISITE SKILLS:

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- Know a scatter plot is a graph in the coordinate plane representing a set of bivariate data.
- Know bivariate data are pairs of linked numerical observations.
- Know a positive linear association is one that would be modeled using a line with a positive slope.
- Know a negative linear association is one that would be modeled using a line with a negative slope.
- Know a cluster is a group of numerical data values that are close to one another.
- Know an outlier is a value that does not seem to fit the general pattern in a scatter plot.
- Know a line can be used to represent the trend in a scatter plot.
- Know linear association is when the data on a scatter plot shows an upward or downward trend.
- Know whether or not data plotted on a scatter plot has a linear association.

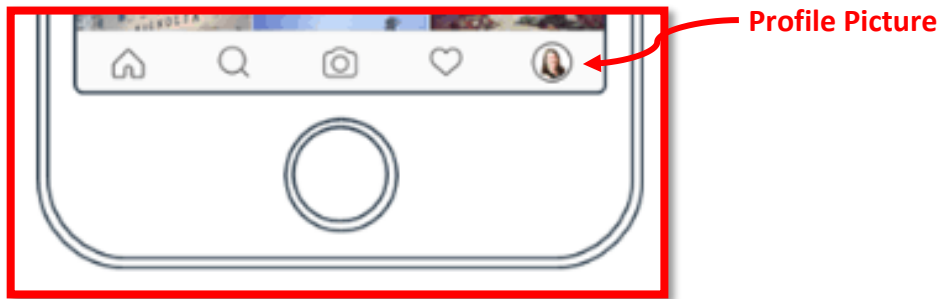
**ACTIVITY:**

**Note: Activity Sheet Attached**

**Prior to the activity**, review with students how to create a scatter plot with a given set of data, the definition and concept of bivariate data, and ensure students have a working knowledge of data correlations or associations (See “Prerequisite Skills”).

**Note:** Every student may not have an active Instagram account. An alternative option would be to secure resources from other Instagram users and distribute that data to all students.

1. Allow students to sign-in their Instagram accounts using their cellular phones, tablets, or personal computers.
2. Ask students to press/click on the profile picture to access the profile page.



*Figure 1: Locate Profile Picture at the bottom of the home screen.*

3. Make certain students understand that this page displays their profile picture, number of posts, followers, and the amount of people they are following.



*Figure 2-Instagram Profile Page*

4. Distribute the “InstaFame” activity sheets.
5. Prompt students to use Instagram data they have collected or have been given to complete the “InstaFame” activity sheets.
6. Monitor student progress by walking about the classroom, and assist students as needed.
7. Encourage students to begin graphing once all data is recorded.

**Note:** If students have large data points, instead of graphing on paper, have students graph tables by inputting data into their handheld graphing calculators or the online [Desmos Graphing Calculator](#).

8. Once students have completed the activity sheets, facilitate a student debate/math talk session to address the “Questions to Consider”.

### QUESTIONS TO CONSIDER:

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- Do you notice a relationship between the amount of posts and followers?
- What about the amount of followers who received a follow-back?
- What other variables may contribute to your number of followers?
- Do you think people are more likely to follow others with a large amount of followers? Explain.
- Would you predict a positive or negative association?
- What would a cluster indicate in the InstaFame context?
- How would you describe an outlier’s profile?
- Would you predict a linear association? Explain.
- Using what you’ve discovered, describe another social trend and the factors that may contribute to a positive or negative association?

### RESOURCES:

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- [Mississippi Mathematics Scaffolding Document](#) (Grade 8, Page 31-32)
- [2016 MCCRS for Mathematics](#)
- [Instagram Website](#)
- [Instagram Help-Signing Up and Getting Started](#)

**Optional:** The University of Mississippi's Center for Mathematics and Science Education has an extensive inventory of math (and science and technology) tools and manipulatives that teachers may borrow for classroom use at no charge. Click the link below to access the inventory list and complete a check-out request.

- [CMSE Manipulatives](#)

### BEYOND THE ACTIVITY:

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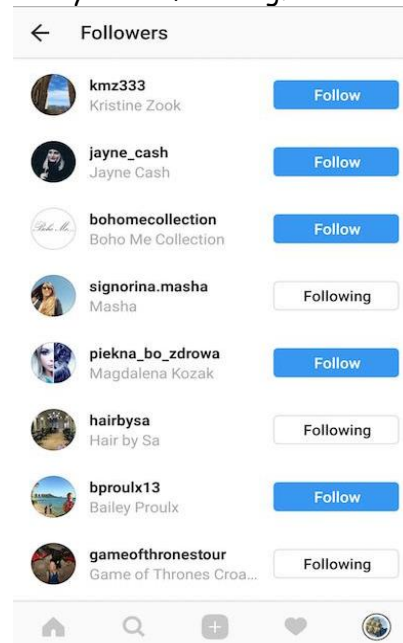
- **Accommodation(s):** Students who do not have access to Instagram may collect data from 10 students in the room. The teacher may also consider providing data for students.
- **Misconceptions: During the Student Debate/Math Talk:** What factors contribute to InstaFame? Students may discuss why they follow their sample followers. Students will discover a variety of motives that may shift their perspective of

social media. This may lead to greater self-discovery, self-reflection and creating purpose behind physical and virtual social decisions.

# Activity Sheets: InstaFame

**Step 1:** Click on "Followers" on your profile page.

**Step 2:** Select the first follower that you are following. In the case below, you would select Marsha.



**Step 3:** Record their number of "posts" and "followers" in the table below. (Table 1)

**Step 4:** Select the arrow in the top left corner to navigate back to your follower's page.

**Step 5:** Select the next follower you are following. Repeat steps 3 and 4 until the table is complete.

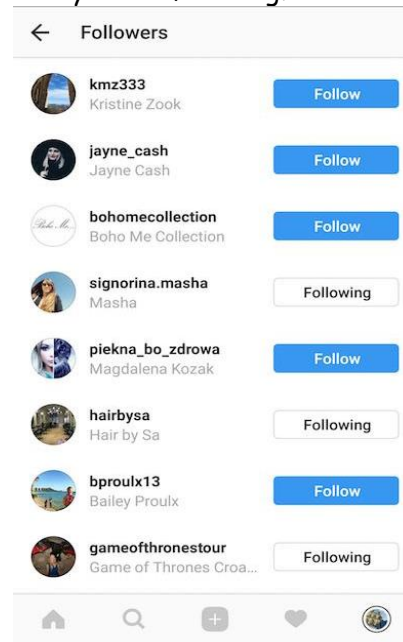
## Just Follow Me

Posts										
Followers										

# InstaFame

**Step 1:** Click on "Followers" on your profile page.

**Step 2:** Select the first follower that you are following. In the case below, you would select Marsha.



**Step 3:** Record the numbers above "followers" and "following" in the table below. (Table 2)

**Step 4:** Select the arrow in the top left corner to navigate back to your follower's page.

**Step 5:** Select the next follower you are following. Repeat steps 3 and 4 until the table is complete.

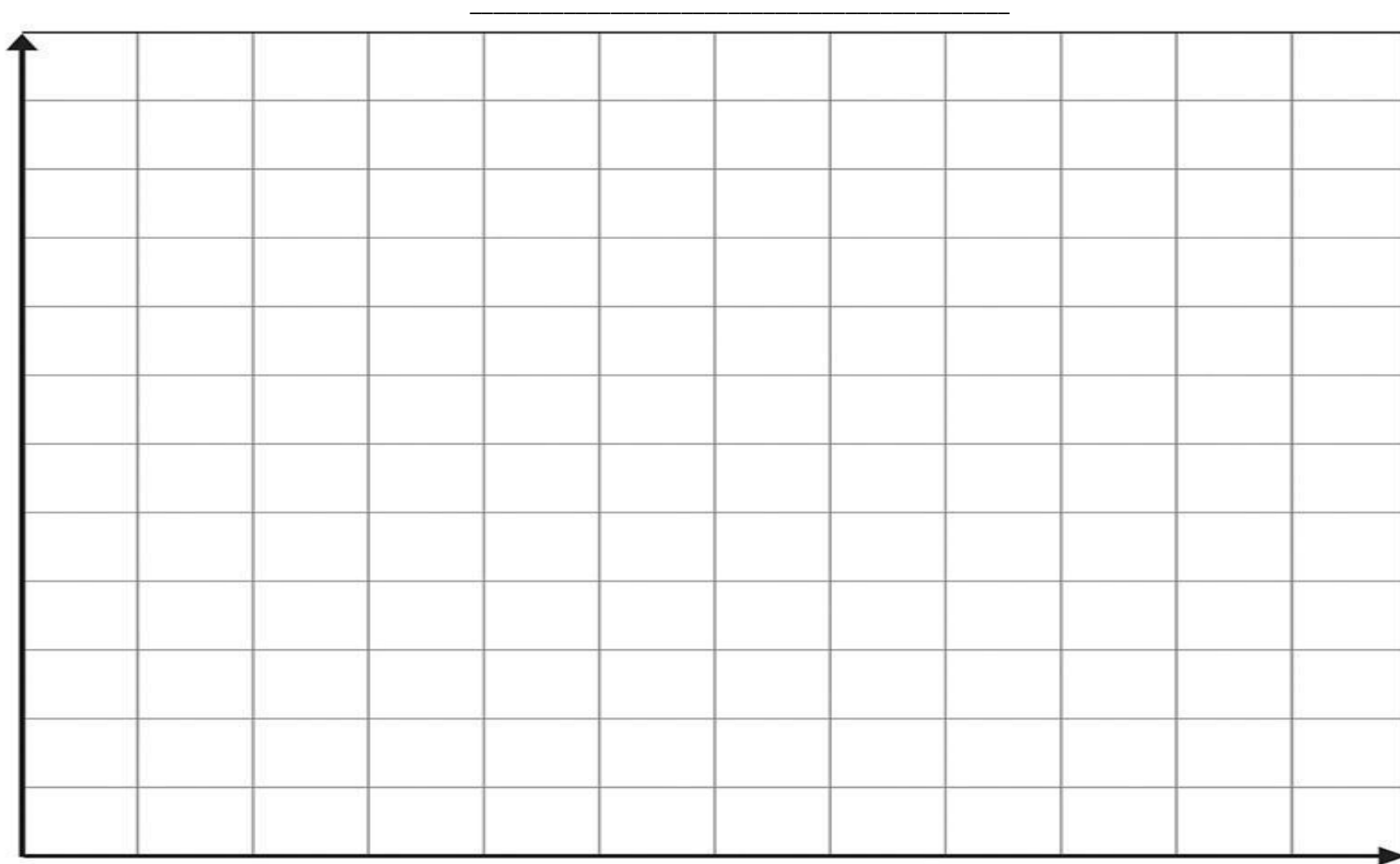
## Just Follow Me 2

<b>Followers</b>										
<b>Following</b>										



# InstaFame

Use the coordinate plane below to graph the data from Table 1. Label and scale each axis accordingly. Be sure to provide a title.



# InstaFame

Use the coordinate plane below to graph the data from Table 2. Label and scale each axis accordingly. Be sure to provide a title.

