

## **DEMYSTIFYING DATA**

Data and education are inevitably intertwined. In almost every professional development or education program, there is a data component. Even though educators spend so much time with data there is often a disconnect between data collection and the everyday actions and activities within the school. That need not be the case. In school, if you ever had to go through a problem-solving process or make an informed decision, you had to use data that you collected, even if you did not recognize it as data.

Data does not have to be lengthy numbers in a spreadsheet. It can be grades, the number of students who turned an assignment in on time, attendance, or the number of times a student was sent to the office. It does not have to be numbers at all. Data can even be body language of students during certain activities or the words students used to describe a project. If a teacher notices that the grades were lower on a certain test than normal and begins to wonder why, he or she is using data. Other common data points teachers might collect include parent involvement, feedback systems, and rewards. Data is collected almost every day in the virtual world. This could include the number of students turning in assignments, the number of students attending live classes, the participation of students in that class. Truly, data is any information a teacher, administrator, counselor, etc. gathers or takes in that can show patterns, and they use that to make a decision and/or make changes in order to improve.

Instead of thinking of data as solely numbers and graphs, it can also be considered a vehicle for reflection. When you look at attendance, office disciplinary data, or grades, you might wonder “what could we do to do better?” Through that simple question, one can begin to make changes to their practice. It is important to remember that these changes can be minor. You do not need to reinvent the wheel. Base the data-based changes on what you can control in that moment. Using data to make informed decisions is similar to the scientific process: observation, questioning, hypothesis, experimentation, analysis, and conclusion. You observe the event for your data collection, for example a test grade. You ask a question based on the data, such as “What could I do to increase the student’s test scores?”

You then form a hypothesis, such as adding a review game before a test might increase the test scores. Experimentation would be making the change, such as adding a review game before the next test. Analysis would be looking at the test scores and comparing the test scores from after adding the review game to test scores from before a review game was done. A conclusion can then be drawn based on that analysis. Additional questions may also be generated which starts the cycle again.

It is important to remember that you are not alone when looking at data. There are other people in schools in different roles that might notice new or different patterns that you did not initially see. They or others might have different interpretations of the patterns or ideas for changes that can lead to some new and creative solutions.

Those in the education field collect data every day and use that data to make decisions, so next time someone mentions data, feel confident in your abilities! Know that if you have ever looked for patterns in the numbers, behaviors, etc. in schools, and wondered “Why?”, you are a data analyst.

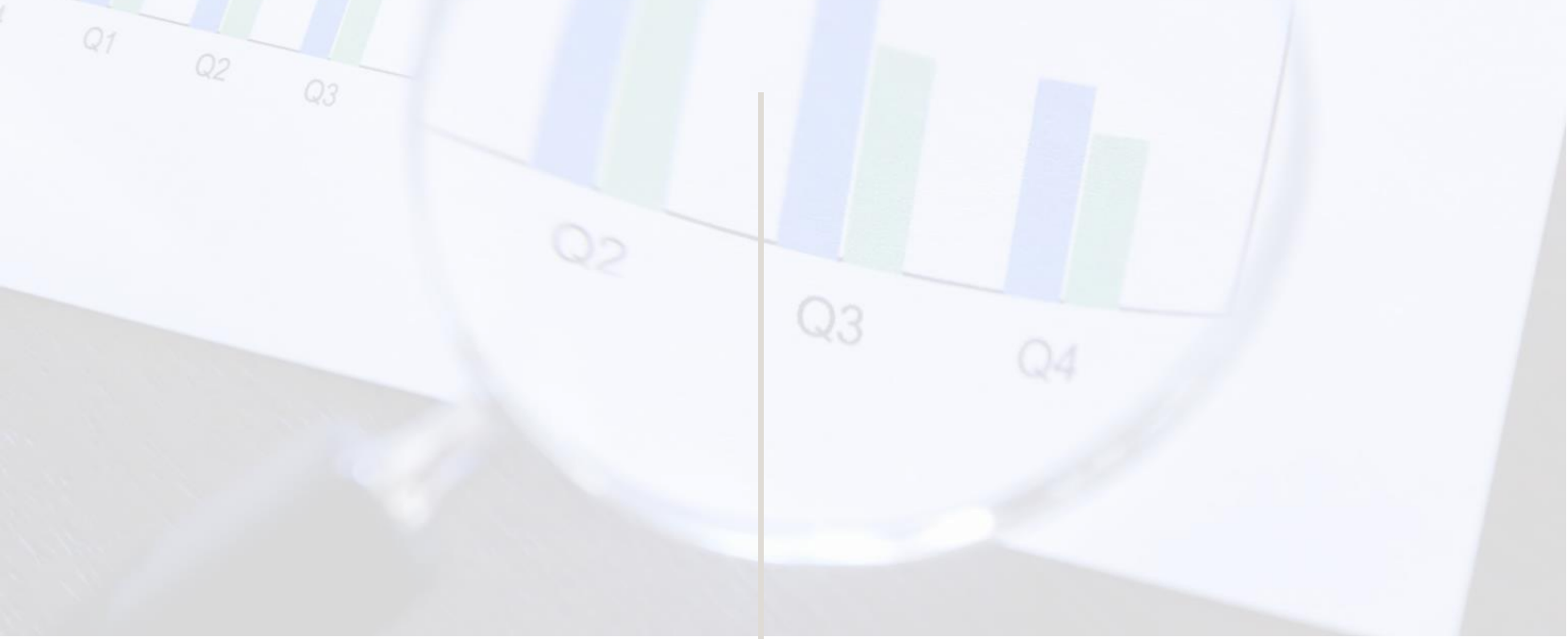
## **ACTIVITY TO TRY**

Next time you see some sort of data or pattern that makes you wonder, go through the scientific process as you make your data-informed decision. You can check off the steps as you go.

- Observe a pattern in your data
- Form a question
- Develop a hypothesis
- Make a change and collect additional data
- Analyze the new data
- Draw conclusions
- Form additional future questions

If you would like assistance in any of the areas listed above, please fill out our Request for Assistance form and let us know how we can work alongside you to make provisions within your building.

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