## EQUITY IN SPECIAL EDUCATION: ANALYZING YOUR SCHOOL DATA

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## DATA COLLECTION IN SCHOOLS - LIMITLESS


-Grades
-Attendance
-Test Scores
-DESE Uploads
${ }^{\bullet}$ CRDC Uploads
-Benchmarking

- State
achievement tests
-Demographics


## Provide information for comparison purposes

## WHY?

## Way to monitor a situation

## Call to action - developing strategic plan

## FOR DATA TO BE A POWERFUL TOOL,

## IT MUST BE ...

## Surrounded by Context

## Deeply Analyzed - "Mine the Data"

## Address a Specific Question

## 2021-22 Data on Special Education in Missouri

- Missouri had 114,951 students identified as having disabilities
- 77,112 were male $=67 \%$ of identified students
- 37,839 were female = 33\% of identified students
- 3 categories had over 5,000 students identified and 20\% or more of their students place in the most restrictive learning environments
- Autism
- Emotional Disturbance
- Intellectual Disability


## 2021-22 Data on Special Education in Missouri - Race/Ethnicity

|  | Black <br> (Not Hispanic) | Hispanic | Two or More <br> Races | White <br> (Not Hispanic) |
| :--- | :---: | :---: | :---: | :---: |
| Autism | $11 \%$ | $12 \%$ | $13 \%$ | $12 \%$ |
| Emotional Disturbance | $8 \%$ | $4 \%$ | $8 \%$ | $5 \%$ |
| Intellectual Disability | $11 \%$ | $7 \%$ | $6 \%$ | $6 \%$ |

## 2021-22 Data on Special Education in Missouri - Placement

|  | Black <br> (Not Hispanic) | Hispanic | Two or More <br> Races | White <br> (Not Hispanic) |
| :--- | :---: | :---: | :---: | :---: |
| Regular class 80\% or more <br> of the day | $53 \%$ | $57 \%$ | $58 \%$ | $57 \%$ |
| Regular class 40\% to $79 \%$ <br> of the day | $28 \%$ | $31 \%$ | $29 \%$ | $29 \%$ |
| Regular class less than <br> $40 \%$ of of the day | $12 \%$ | $9 \%$ | $9 \%$ | $8 \%$ |
| Separate School | $5 \%$ | $2 \%$ | $2 \%$ | $3 \%$ |

We know there are inequities and those inequities show up in the data. The way to get to the root of these inequities is to Mine The
Data. Ultimately, using the data to provide a more equitable system. Data mining is a process to systematically improve equity, so that every child gets what they need.

## WHAT IS DATA MINING?

Data mining is the use of multiple data sets or multiple levels of data within a set that can help improve our interpretation of the data and our response to it.

## ATTENDANCE DATA

$\bullet 4$ students with $90.1 \%$ average attendance (summative data)

- Student 1 - 90.1\%
- Student 2 - 90.1\%
- Student 3 - 90.1\%
-Student 4 - 90.1\%

What context information might be useful in interpreting these results and deciding what to do?

ATTENDANCE MATTERS

## MINE THE DATA

What time of year is it?

- January
- April
- October


How do different times of the year impact your interpretation of the information and needed actions?

## HOW WERE THE ABSENT DAYS SPACED OUT?

How would you find this information?

How does adding information from raw data patterns impact your decisions?

- Student 1 - Before and after Thanksgiving and Winter Break
-Student 2 - Every Wednesday
- Student 3 - Randomly
- Student 4 - Randomly

Think about a recent situation in which you could have used multiple data sources to refine your actions.
-What was the situation and what else would you liked to have known?
-What additional data sources would you need to access?
-What kind of information might you have found?
-How might that have impacted your decisions?


## DATA RELATED TO TYPES OF GOAL

TARGET GOAL
aka MSIP 6 Status Points

- Needs a standard
- Summative information
- Met or Not met


## IMPROVEMENT GOAL aka MSIP 6 Progress Points

- Needs baseline data
- Summative and formative information
- Measures amount of progress
- Data mining Which of your building goals falls into each goal type?

Increase attendance by $3 \%$ or more

## HIGH SCHOOL PROGRESS TO GRADUATION

- Added to MSIP 6
- Data mining revealed that student who earn less than 6 credits per year are less likely to graduate in 4 years (Standard TL1I)
- Calculated by grade/cohort (cohort established $1^{\text {st }}$ year as a freshman)



## MINE YOUR DISTRICT'S DATA - PROCESS

- First, brainstorm variables that might be factors in student success in a course.

Possibly: attendance, work completion, test scores, study skills, social relationships, academic supports, level of classes, schedules, out-of-school responsibilities, necessary learning resources

- Next, think about how, when, and where you can get data for the variables you brainstormed.
- Identify patterns in data: some students have failed courses beginning with the first semester of $9^{\text {th }}$ grade.
- Use the data from those that have failed courses the first semester and begin to analyze them by one or more of your variables.
- Begin to cluster students by the variables you think may be impacting them or by no variables seeming to stand out.


## NEXT STEPS

- Identify focus group failing students with good class attendance
- Review data at deeper levels through multiple lenses

|  | Student <br> 1 | Student <br> $\mathbf{2}$ | Student <br> 3 | Student <br> 4 | Student <br> 5 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| \% Completed assignments | $59 \%$ | $95 \%$ | $90 \%$ | $100 \%$ | $89 \%$ |
| Average score on completed <br> assignments | $85 \%$ | $40 \%$ | $25 \%$ | $79 \%$ | $56 \%$ |
| Assignment in which students did <br> best -- in-class or homework | In- <br> class | In- <br> class | In- <br> class | Home <br> work | Home <br> work |
| Average test score | $55 \%$ | $39 \%$ | $75 \%$ | $47 \%$ | $50 \%$ |
| Question types successful on - <br> multiple choice (MC), short answer <br> (SA), both (B), Random ( R) | B | R | MC | MC | SA |

## NEXT STEPS

## How would you describe each of these students? If you were to look for other students who performed similarly, describe the characteristics that person would have.

|  | Student <br> $\mathbf{1}$ | Student <br> $\mathbf{2}$ | Student <br> $\mathbf{3}$ | Student <br> $\mathbf{4}$ | Student <br> $\mathbf{5}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
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What are some things that could be done to help each of these students?

- What things have you done before in similar situations?
- What things have you considered but never done?
- What out of the box ideas do you have for resolving this inequity?
Are there other areas you feel you need to continue exploring for any of these students?


We know there are inequities and those inequities show up in the data.

The way to get to the root of these inequities is to mine the data.

Ultimately, using the data to provide a more equitable system. Data mining is a process to systematically improve equity, so that every child gets what they need.

Since this is not just about one student but systematizing equity. Every student who needs this intervention must receive it.

Think about your previous ideas, what one or two of these could you put in place in a systematic way? To find the students who you think would benefit from this change, for what characteristics would you search?

Are there other areas you feel you need to continue exploring for any of these students?


## QUESTIONS

