Differentiating Data: Making Data Come Alive (K-12)

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Making the Data Come Alive

• We Will:
  • Explore the manner in which data is presented in order to engage individuals with information and evidence for data driven decisions.
Making Data Come Alive

• I Will:
  • Create an infographic using a data set that is both accurate and engaging so that I can explain the information to a new friend.
Making Data Come Alive

• Elements of Differentiation

• Elements of Language Proficiency

• Elements of Academic Development
Making Data Come Alive
Making Data Come Alive
Making Data Come Alive

• Please click on the link or use the QR code below to access a Google Form we will be answering and using throughout the presentation. Please answer questions 1 -3 at this time.

• https://goo.gl/forms/omQ6oxgyPaS7kXbl2
Making Data Come Alive

• How do we use data in daily lives?

• Have you observed the need to use data to inform a decision in your personal life?

• What are some ways that we discuss data in non-educational settings?

• Why are conversations grounded in data important?
Making Data Come Alive

- Which sex is the most verbose, Men or Women?
  - Please select which sex is the most talkative by answering question number 4 on the google form.

Written Summary

The average number of daily words spoke by males in the study was 15,669 while females were found to use on average 16,215 words daily, meaning that women use an average of 546 more words per day than men.

<table>
<thead>
<tr>
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<th>Males</th>
<th>Females</th>
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<tr>
<td>Avg. Number of Daily Words</td>
<td>15,669</td>
<td>16,215</td>
</tr>
<tr>
<td>Number of Participants</td>
<td>186</td>
<td>210</td>
</tr>
</tbody>
</table>
• What information was easier for you to process?
  • Please answer question number 5 on the Google Form.

Written Summary

The average number of daily words spoke by males in the study was 15,669 while females were found to use on average 16,215 words daily, meaning that women use an average of 546 more words per day than men.

DATA TABLE

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Making Data Come Alive

• What was the point of the reviewing that scenario?
  • We all have different ways that we look at information and make conclusions.

• Differentiation is critical to education
  • We differentiate instruction
  • We differentiate product

• Why don’t we apply differentiation to data analysis.
Making Data Come Alive

• What is data literacy?
  • Moving beyond the outcome
  • Interpreting results
  • Focus on evidence to inform practice

• Data Literate Educators:
  • Know the types of data that exist
  • Understand which data to use
  • Transform data into action
  • Maintain integrity with data

Differentiation of Data:
• Knowing how to share information with others so that literacy is achieved and decisions are grounded in evidence
Making Data Come Alive

• What did you look at first when you saw this spreadsheet?

• Please write your response to this question on the google form under question number 6.
Making Data Come Alive

• Data analysis involves decoding skills as well as understanding and knowing what you are looking at and why.
  • Step 1: Why are you looking at a data set?
  • Step 2: What do you hope to learn from the data?
  • Step 3: What are the headings, axes, or labels?
  • Step 4: What important information stands out to you?
  • Step 5: What conclusions have you arrived out?
  • Step 6: How would you share this information with someone else?
Making Data Come Alive

- Let’s Practice:
  - Step 1: Why are you looking at a data set?
  - Step 2: What do you hope to learn from the data?
  - Step 3: What are the headings, axes, or labels?
  - Step 4: What important information stands out to you?
  - Step 5: What conclusions have you arrived at?
  - Step 6: How would you share this information with someone else?
Making Data Come Alive

- Presentation A
- Presentation B

Please answer question 7 on the Google Form.
Making Data Come Alive

• The way data is shared impacts the manner in which it is received.
  • We all have different learning styles

• The corporate world, in particular marketing and advertising, understands this well.
  • Less is More!!
  • Get Attention!!
  • Engage the Senses!!
  • Appeal to the Individual!!
Making Data Come Alive

• Move past the spreadsheet

• Infographics
  • Visual representations of the data being shared.

• [https://www.youtube.com/watch?v=VQbFX2QzbOl](https://www.youtube.com/watch?v=VQbFX2QzbOl)
Making Data Come Alive

5 Year Summary Spreadsheet

5 Year Summary Infographic

Please answer question 8 on the Google Form after viewing the different data presentations.
Making Data Come Alive

• Let’s look at a different presentation of the data

What are some of your thoughts regarding the information presented?

What are some educational implications?

How do we use this information to support our ELL’s with literacy?
Making Data Come Alive

• Presentation matters!
## Making Data Come Alive

### GRADE LEVEL  | STAAR CONTENT  | Total Number of Questions | Raw Score | Percent Score | Scale Score | Leveled on or Percentile | Raw Score | Percent Score | Scale Score | Leveled on or Percentile | Raw Score | Percent Score | Scale Score | Leveled on or Percentile
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**Grades 3** | STAAR Reading | 34 | 18 | 59% | 1345 | 505-705 | 26 | 76% | 146/ | 730L-825L | 29 | 85% | 1555 | 890L-1200L
Grades 4 | STAAR Reading | 36 | 20 | 56% | 1434 | 670L-835L | 27 | 75% | 1550 | 860L-980L | 31 | 86% | 1633 | 1030L-1300L
Grades 4 | STAAR Writing | 32 | 18 | 56% | 3550 | 38-62 | 23 | 72% | 4000 | 70-86 | 37 | 84% | 4612 | 91-100
Grades 5 | STAAR Reading | 38 | 22 | 58% | 1470 | 735L-895L | 29 | 76% | 1582 | 940L-1300L | 33 | 87% | 1667 | 1095L-1400L
Grades 6 | STAAR Reading | 40 | 23 | 59% | 1517 | 870L-1000 | 31 | 78% | 1620 | 1025L-1140L | 35 | 88% | 1718 | 1185L-1300L
Grades 7 | STAAR Reading | 42 | 23 | 55% | 1567 | 910L-1090 | 32 | 76% | 1674 | 1105L-1215L | 36 | 86% | 1753 | 1250L-1600L
Grades 8 | STAAR Reading | 46 | 25 | 54% | 3550 | 24-59 | 32 | 76% | 4000 | 64-88 | 38 | 83% | 4602 | 90-100
Grades 8 | STAAR Science | 44 | 25 | 57% | 1587 | 950L-1115L | 33 | 75% | 1700 | 1155L-1270L | 38 | 86% | 1783 | 1305L-1700L
High School | EOC English I | 68 | 40 | 59% | 3775 | 40-55 | 46 | 68% | 4000 | 57-91 | 60 | 88% | 4691 | 93-100
High School | EOC English II | 68 | 41 | 60% | 3775 | 38-51 | 47 | 65% | 4000 | 56-93 | 62 | 91% | 4831 | 94-100

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**Grades 3** | STAAR Mathematics | 32 | 16 | 50% | 1360 | 26-55 | 24 | 75% | 1486 | 60-77 | 28 | 88% | 1596 | 89-100
Grades 4 | STAAR Mathematics | 34 | 17 | 47% | 1467 | 28-58 | 25 | 74% | 1589 | 64-77 | 29 | 85% | 1670 | 82-100
Grades 5 | STAAR Mathematics | 36 | 17 | 47% | 1500 | 24-56 | 26 | 72% | 1623 | 59-80 | 31 | 86% | 1724 | 83-100
Grades 6 | STAAR Mathematics | 38 | 13 | 34% | 1536 | 29-59 | 23 | 61% | 1530 | 51-82 | 31 | 82% | 1772 | 86-100
Grades 7 | STAAR Mathematics | 40 | 16 | 40% | 1575 | 31-60 | 25 | 63% | 1688 | 63-83 | 33 | 83% | 1798 | 85-100
Grades 8 | STAAR Mathematics | 42 | 20 | 48% | 1595 | 30-61 | 29 | 65% | 1700 | 63-90 | 37 | 88% | 1854 | 93-100
High School | EOC Algebra I | 54 | 21 | 39% | 3550 | 22-52 | 34 | 63% | 4000 | 56-74 | 42 | 78% | 4830 | 77-100

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**Grades 5** | STAAR Science | 36 | 21 | 58% | 3550 | 28-61 | 26 | 78% | 4000 | 69-86 | 32 | 89% | 4402 | 93-100
Grades 8 | STAAR Science | 42 | 22 | 52% | 3550 | 26-53 | 20 | 66% | 4000 | 59-80 | 35 | 83% | 4406 | 84-100
High School | EOC Biology | 54 | 21 | 39% | 3550 | 11-40 | 33 | 61% | 4000 | 42-81 | 45 | 83% | 4576 | 83-100

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**Grades 8** | STAAR Social Studies | 44 | 23 | 52% | 3550 | 36-67 | 32 | 73% | 4000 | 72-81 | 36 | 82% | 4568 | 86-100
High School | EOC US History | 68 | 29 | 43% | 3550 | 9-34 | 43 | 63% | 4000 | 38-68 | 34 | 79% | 4440 | 73-100

- ✓ Organization
- ✓ Completion
- ✓ Accuracy
- ✓ Color
• Take a look at the following data table and create an infographic to explain the results you see.

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<th>Total Students</th>
<th>Raw Score</th>
<th>Scale Score</th>
<th>Percent Score</th>
<th>Approaches GL</th>
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<td>5.26%</td>
</tr>
</tbody>
</table>
Making Data Come Alive

• What were some of your conclusions?
  • Which teacher is glowing?
  • Which teacher might need some growing?
  • How might this information be shared in an effective way at a district, campus, or PLC?

• Find your “Sole Mate” and share your answers to the questions above along with one thing you will take away from this training. Person with the shortest hair gets to share first.
• Let’s Wrap It Up:
   ✓ Did We: Explore the manner in which data is presented in order to engage individuals with information and evidence for data driven decisions.
   
   ✓ Did We: Create an infographic using a data set that is both accurate and engaging so that I can explain the information to a new friend.
   
   ✓ Differentiation
   
   ✓ Language Development

Please answer question number 9 on the Google Form
Making Data Come Alive

• I have been collecting data throughout this session.

• Lets take a look at the results.

• How will I use this information?

• Classroom Implications, PD Implications, PLC Implications
Making Data Come Alive

PRELIMINARY DATA ANALYSIS COMPLETE

TIME TO WRITE PREDICTIONS

Effective Border Schools Conference
Leading the Learning
Region 19 is working hard to provide information across El Paso County that is both timely and relevant. The need for quality data to both inform and drive decisions is critical. Data driven decision making shifts the mindset of accountability to an area of targeted growth and improvement for the betterment of all students.

The systematic disaggregation of information will allow our systems, practices, and procedures to realize their potential, not only increasing the educational value we add to our students but also to our community and ourselves as we work in an efficient and effective institution of higher learning and societal change.