Mini-Map for M.EE.HS.S.ID.1-2

Subject: Mathematics
Statistics and Probability—Interpreting Categorical and Quantitative Data (S.ID)
Grade: 10

Learning Outcome

DLM Essential Element	Grade-Level Standard
M.EE.HS.S.ID.1-2 Given data, construct a simple graph (line, pie, bar, or picture) or table, and interpret the data.	**M.S.ID.1** Represent data with plots on the real number line (dot plots, histograms, and box plots). **M.S.ID.2** Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

Linkage Level Descriptions

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
Arrange objects in a specific order (e.g., smallest to largest). Group objects by some attribute value (e.g., shape, size, texture, numerical pattern).	Recognize the structure of bar, picture, line graphs, and pie charts, such as the title and labels for the *x*- and *y*-axes. Understand that bars are used to display data on bar graphs. Understand that pictures, symbols, or geometric figures are used to display data on picture graphs. Understand that points joined by a line are used to represent data on	Answer questions by lifting information from a bar graph, picture graph, or line plot and understand the information represented on the graph (e.g., in the graph representing students' favorite ice cream, how many students like strawberry ice cream? How many students like chocolate ice cream?).	Represent data on bar graphs, picture graphs, line graphs, and pie charts. Use bar graphs, picture graphs, line graphs, and pie charts to answer questions (e.g., how many, most, least) that require interpretation and integration of information presented in the graph.	Draw inferences or make predictions by interpreting information presented on a bar graph, picture graph, line graph, or pie chart (e.g., on the bar graph representing the number of pizzas required for a certain number of people, predict the number of pizzas needed for 20 people).

Initial Precursor	Distal Precursor	Proximal Precursor	Target	Successor
	line graphs, and sectors are used to represent data on pie charts.			

Initial Precursor and Distal Precursor Linkage Level Relationships to the Target

How is the Initial Precursor related to the Target?

In order to represent and use data, students begin by learning to recognize what is the same and different between familiar items such as color, shape, quantity, size, texture, and pattern. Educators should take care to use words that describe (e.g., more, less, red circle, same, different) while defining and demonstrating their meaning. While students do not need to say these words, they do need to learn the meanings. Students will also begin to group two or more items in the same set based on an attribute (e.g., two CDs, bumpy balls and bumpy gravel, red rectangles). As the students group two or more items, the educator will demonstrate the representation in graphs and charts and encourage students to actively participate in their creation.

How is the Distal Precursor related to the Target?

Students actively participate in the creation of bar graphs, picture graphs, line graphs, and pie charts by placing representations for each response to the research question.

Instructional Resources

Released Testlets
See the Guide to Practice Activities and Released Testlets.
Using Untested (UN) Nodes
See the document Using Mini-Maps to Plan Instruction.

[Link to Text-Only Map]

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