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| --- | --- | --- | --- | --- |
| **Graph Self-Efficacy Beliefs and Graph Attitudes (GSEBGA) Scale**  Please read each of the following items and tick one of the options that best describes your opinions to indicate what you think about the graphs. | | | | |
|  | **Strongly Disagree** | **Disagree** | **Agree** | **Strongly Agree** |
| 1. I can’t formulate my ideas on graph questions. | **□** | **□** | **□** | **□** |
| **2.** Graph questions in exams always worry me more than other questions. | **□** | **□** | **□** | **□** |
| **3.** Graphs make it easier to learn the subjects in science courses. | **□** | **□** | **□** | **□** |
| **4.** I can’t understand the graphs that involve more than two variables. | **□** | **□** | **□** | **□** |
| **5.** I would like to learn new information about graphs. | **□** | **□** | **□** | **□** |
| **6.** I can’t make analyses by looking at the numbers in graphs. | **□** | **□** | **□** | **□** |
| **7.** I would like the numerical values in exams to be given in graphs rather than to be given in the text. | **□** | **□** | **□** | **□** |
| **8.** When I see graph questions, I feel that I can’t solve them. | **□** | **□** | **□** | **□** |
| **9.** Studying the graphs on books attracts my attention. | **□** | **□** | **□** | **□** |
| **10.** I feel myself insufficient in interpreting the graph questions. | **□** | **□** | **□** | **□** |
| **11.** I would have trouble when expressing data values in graphs. | **□** | **□** | **□** | **□** |
| **12.** I enjoy working on graph questions. | **□** | **□** | **□** | **□** |
| **Notes for future Scale users:**  **Factor 1 (GSEB):** Item 1, Item 2, Item 4, Item 6, Item 8, Item 10, Item 11  **Factor 2 (GA):** Item 3, Item 5, Item 7, Item 9, Item 12  **Negative Items to be Reverse Coded:**  All items in the GSEB factor | | | | |

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| **Graph Literacy Perceptions according to Graph Types (GLPGT) Scale**   * This scale is designed to get your views for each of the **Line Graphs**, **Bar Graphs**, and **Pie Charts** separately. * Firstly, determine how you feel about the **Line Graphs**, **Bar Graphs**, and **Pie Charts** for each of the four items in the scale, according to the below **Disagreement/Agreement** categories with **1-4 number codes**. * Then, for each item, mark the **number code** (independently for each graph type) of the **Disagreement/Agreement** category, which best expresses your opinion about the **Line Graphs**, **Bar Graphs**, and **Pie Charts**. |
| **1:** Strongly Disagree  **2:** Disagree  **3:** Agree  **4:** Strongly Agree |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  | | | |  |  | | | |  |  | | | | | **Line Graph** | | | |  | **Bar Graph** | | | |  | **Pie Chart** | | | | | * I can display the given data correctly as a graph. | (1) | (2) | (3) | (4) |  | (1) | (2) | (3) | (4) |  | (1) | (2) | (3) | (4) | | | * I can correctly interpret the graphs. | (1) | (2) | (3) | (4) |  | (1) | (2) | (3) | (4) |  | (1) | (2) | (3) | (4) | | | * I like to present data in graphs. | (1) | (2) | (3) | (4) |  | (1) | (2) | (3) | (4) |  | (1) | (2) | (3) | (4) | | | * I can easily find the correct responses to graph questions. | (1) | (2) | (3) | (4) |  | (1) | (2) | (3) | (4) |  | (1) | (2) | (3) | (4) | |   **Important Note:** For each of the following four items, you are asked to give 3 separate answers, each independently indicating your thoughts about the **Line Graphs**, **Bar Graphs**, and **Pie Charts.** |