EXPERIMENTAL DESIGN AND GRAPHING ACTIVITY
Modules 4, 5, and 6

OVERVIEW: Students will select one research question (from a list provided) and a) identify the independent and dependent variables, b) identify the research question type and select an experimental design that best answers the research question, and c) graph hypothetical data in a single subject design, demonstrating a functional relation between the independent and dependent variables (3 x 30 points each).

STEPS:

1. Select a research question from a list provided.
2. Identify the Independent Variable and the Dependent Variable.
3. Identify the type of research question being asked.
4. Select the experimental design (from that module's readings and ASRs only) that will answer the research question.
5. Graph hypothetical data demonstrating a functional relation.

DELIVERABLE:

Single-page Word document that contains the following:

1. The research question selected.
2. The Independent and dependent variables labeled.
3. The type of research question identified.
4. The experimental design chosen.
5. An ABA style graph demonstrating a functional relation (using hypothetical data). The graph must be a line graph. Follow the demonstration in the graphing tutorials.

SCORING RUBRIC:

Lists the research question chosen - 1 point
Identifies the IV and DV correctly - 4 points
Identifies the type of research question correctly - 2 points
Identifies an appropriate experimental design and labels it correctly - 2 points
Graph demonstrates a functional relation between the IV and DV - 2 points
Line graph with all components required - 5 points (1 points per area):

- black and white/no color or grayscale
- condition or phase change lines
- condition labels and learner/participant name labels correctly placed and displayed
- Axis labels, tick marks outside; solid black lines; upper limit of the Y axis is upper limit of the data
- Data graphed using Excel or similar; not hand drawn