**Week of March 21, 2011**

**Human Scatterplots**

**Description:**

The *Human Scatterplot* is a quick, visual way for teachers and students to get an immediate classroom snapshot of students’ thinking and the level of confidence students have in their ideas. The technique gets the class up and moving as students position themselves on a “floor graph.” As students position themselves around the room according to their response to the question and their confidence level, it creates a visual scatterplot of class results.

**How this FACT Promotes Student Learning:**

This FACT can be used to engage students in examining their own ideas as well as ideas from the whole class. Seeing that students in the class vary in their answers and confidence levels can be both a surprise and a relief to students who learn that they are not alone in their thinking or in how much confidence they have in their ideas. It sends a message that the class must work together to develop their understanding so that everyone can eventually come to an agreement on the answer to the question and raise their confidence in their own ideas.

**How this FACT Informs Instruction:**

This FACT can be used at the beginning of a lesson or sequence of instruction to elicit students’ initial ideas and motivate them to want to further explore and discover ideas. It can be used during the exploration and discovery stage of instruction to determine how well students are making sense of different information. Looking about the room to see where clusters of students and individuals place themselves gives immediate feedback to the teacher on the different ideas students have and their levels of confidence. *Human Scatterplots* can be used to initiate debate between students who hold different ideas, by pairing them up with students standing in different areas of the scatterplot. Students who are low on the confidence scale can be asked what it would take to raise the level of confidence in their thinking, sparking discussion and/or providing opportunities to test ideas. They can also be matched with students who have a similar idea and higher level of confidence to draw out ideas that may increase their confidence level.

**Design and Administration:**

Choose selected response questions with at least three and no more than four choices for this FACT. Label the wall (Y-axis) on one side of the room with the choices (e.g., A, B, C). Label the adjacent wall (X-axis) with a range of low confidence to high confidence. Have students position themselves according to where they feel they fall on “the graph.”

**General Implementation Attributes:**

Ease of Use: Medium Time Demand: Low Cognitive Demand: Medium

**Modifications:**

A paper version can be used instead of a human graph. Pass the graph, with axis labeled, around the class and have students put their initials on it according to where their answer falls and their level of confidence. With this method, teachers also have a written record. The scatterplot can then be passed back later after students have had an opportunity to explore the question. Students then re-initial their position, drawing a line to connect their initial and later position, showing the extent to which their confidence level changed or if they changed their response to the question.

**Caveats:**

Students who have difficulty with spatial thinking may need help positioning themselves on the floor graph.

**Disciplines this FACT can be used in:**

This FACT can be used in science, math, social studies, language arts, health, foreign language, and performing arts.

**Sample Room Setup:**

**Front of Room**

|  |  |
| --- | --- |
| **A** |  |
| **B** |  |
| **C** |  |
| Low High  **Confidence in my response** | |

Keeley, Paige. (2008) Science Formative Assessment: 75 Practical Strategies for Linking Assessment, Instruction, and Learning. Thousand Oaks, CA: Corwin Press