Hands-On Learning Activities in Quantitative Literacy Courses

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Rationale for using Hands-on Activities
Set Theory Activity

- **Description: Venn Diagram**
  - Students develop a question that will allow for participants’ responses to be categorized into any combination of three categories. The students create a 3-circle Venn diagram based on the responses as well as develop a worksheet for the classroom activity.

- **Objectives:**
  - Developing a 3-circle Venn Diagram
  - Answering questions based on conjunctions, disjunctions, and negation
  - In groups, reasoning and/or proving results if different from their peers
  - Reflecting on discussion

- **Discussion: Modifications for your class**
Math Modeling Activity

- **Description: Global Warming**
  - Students use 100+ years of actual temperature data of Salt Lake City to construct a scatter plot and determine a line of fit to model the data.

- **Objectives:**
  - Differentiating between linear and exponential growth
  - Writing the equation of a line
  - Making predictions based off model
  - Interpreting the slope as rate-of-change
  - Contextualizing a mathematical model

- **Discussion: Modifications for your class**
Financial Math Activity

Description: Mortgage

Students choose a reasonably priced house and research two financial institutions for fixed 15-year and 30-year mortgage rates. They analyze the different options to determine best value, reasonableness of payment, and strategies for reducing the amount of interest paid over the life of the loan.

Objectives:

- Performing the necessary calculations
- Reflecting on reasoning of the calculated values
- Comparing results using absolute difference and relative difference

Discussion: Modifications for your class
Questions????