

Smiling Operational Definition

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(adapted from an activity created by Dr. Angela Lipsitz, Northern Kentucky University -
<http://top.sagepub.com/content/27/2/111>)*

Concept: Operational definitions are one of the trickiest concepts for my students to understand. This activity gets students involved in making operational definitions in the context of gathering data, and the results of the data gathering demonstrate the implications of operationally defining variables.

Materials: Several copies of the same yearbook.

Instructions: Ask students how they would test the hypothesis “Girls smile more than boys.” After discussing some possible research methodologies, pass out the yearbooks to groups of students and tell them their goal is to use the yearbooks to test the hypothesis. Direct student groups to gather data about smiling rates in men and women in the yearbook. After the groups gather their data, let them share their results with the class. Students should quickly discover that each group’s results depended on their unique operational definition of a “smile”, and that in order to accurately test the hypothesis, “smile” needs to be operationally defined.

Discussion: The class could reach consensus on an operational definition for what counts as a “smile” and use this consensus definition to re-gather their data, which should demonstrate the value of a precise operational definition in consistent data gathering.



Nancy Novikoff



Ruth Norton



Larry Norwood



Russell Noyes



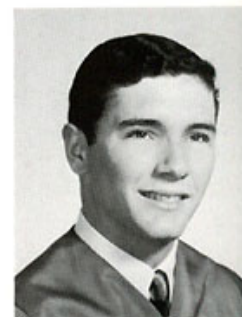
Martin Oblea



Susan Nunnally



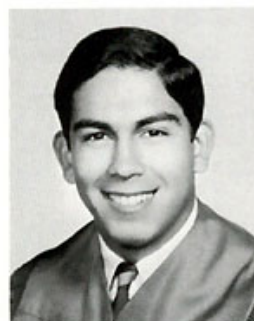
Margareta Nystrom



Carl Obrien



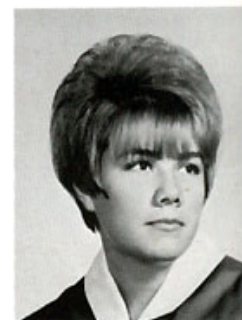
Gene Ortiz



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Gregory Orozco



Rachel Ortiz



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Jorge Oviedo