

# Glossary of Evaluation Terms

- Comparative** A type of research that compares the results of one group receiving a treatment (or intervention) to another receiving either no treatment or a different one. (See quasi-experimental and experimental.)
- Convenience Samples** A sample developed not from a random selection of a given population but from an available group, e.g., 'man-in-the-street surveys.' Likely occurs when the full extent and characteristics of the population of interest are unknown or random sampling is not feasible. Results from a convenience sample cannot be generalized to represent a larger or different population.
- Experimental** The most rigorous method of evaluating effects of some treatment or intervention: by selecting two groups of people, comparable on various potentially relevant characteristics, then randomly assigning them to participate in a particular program or not. The results are compared by researchers who are blinded to (unaware of) which people participated. If no other relevant common factors influence the group of participants during the research period, any measurable changes after the program to the 'participant' group alone, can be viewed as a program effect. Randomly matched experimental studies require certain resources and expertise and sufficient numbers in each group to meet statistical tests for reliability of results.
- Formative** A type of evaluation resulting from a compilation of data from various sources over time to show development of the person or thing being evaluated. An example would be an employment skills program that evaluated students based on a series of practice lessons, work assignments, in-class participation and teacher observations based on interaction.
- Longitudinal** A study in which the same group of people are studied periodically over a long time and compared with themselves to determine the occurrence of change in relation to specific variables.

<b>Matching</b>	Process of making the study group and comparison group comparable with respect to certain factors, e.g. age, sex.
<b>Non-comparative</b>	A study or examination of subjects that draws no comparisons with others outside the group. It may examine aspects from historical data (retrospective), describe a current single-time situation or track subjects periodically over time (prospective).
<b>Non-experimental</b>	Similar to non-comparative studies, having none of the attributes of experimental studies, e.g., random selection into matched groups that are then treated differently, with blinded comparative analysis of effects.
<b>Quartiles</b>	<p>A set of values that mark dividing points in a set of numerical data, used to help describe the dispersion of the data. The first or lower quartile has 25% of the values equal to it or lesser in value. The top quartile has 75% of the values either at or less than it in value. The first quartile may be approximately calculated by placing a group of values in order from smallest to largest, determining the median of the values, then finding the median for the values on either side of that mid-point value. (e.g. 2,3,3, 4,5,5,6,7,7,9,10) For an odd number of values, exclude the median when calculating the quartiles, for an even number, include it.</p> <p>More precise calculation for small data sets: To calculate the position of the quartile values.</p> <ol style="list-style-type: none"> <li>1. Rank the data set observations from smallest to largest.</li> <li>2. To find the lowest quartile, add one to the number of data values, rounding to the nearest whole number, then divide by four, <math>(n+1)/4</math>. If the resulting number is halfway between two whole numbers, round up to the next number. This gives you the rank position of the lowest quartile value.</li> <li>3. To calculate the highest quartile, first multiply the number of data plus one by three then repeat the above step. The observation with this rank represents the upper quartile. If <math>3(n+1)/4</math> falls halfway between two integers, round down.</li> </ol> <p>Based on UNESCO site for computer training at <a href="http://203.162.7.85/unescocourse/statistics/35.htm">http://203.162.7.85/unescocourse/statistics/35.htm</a></p>

- Quasi-experimental** Studies that generally compare groups of participants and non-participants that share some important similar characteristics but are not matched and randomly selected e.g., one classroom of children in a specific grade in one school participate in a program and are compared to a second class in the same grade and school who did not participate. This is done more frequently when standardized instruments (questionnaires or scales) are used to collect data about a specific characteristic or question such as self-esteem, substance use habits or bullying. Such standardized instruments have accepted levels of reliability and validity. Such studies may or may not be blinded
- Single-time evaluation** A one-time snapshot assessment of a program, or intervention, to provide a description of the state of a particular indicator (or characteristics of the program or participants). Often used at the conclusion of a program to determine levels of satisfaction.
- Standard deviation** The size of the standard deviation is a measure of the variability of quantitative results. With regard to ordinal, interval and ratio scale data, it is a numerical expression of the average of how far each value differs from the mean of a data set. Simple steps:
1. Calculate the difference between each data value and the mean of the set. (individual value – mean value.)
  2. Square each difference, then sum them and divide the total by the number of data values to find the variance.
  3. Take the square root of the variance to find the standard deviation.
- Statistical samples** The selection of a smaller group to represent a larger known group (the population) using random selection so that everyone in the population has a chance of being selected. The sample group should then be representative of the whole population.
- Summative** A type of single-time evaluation showing the final outcome from a single measurement or assessment. A single test at the end of a course to pass the level is a summative evaluation.

