Youth Outcome Evaluation for Nutrition Education: Valid? Reliable? How Do I Know?

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In 2005, a SNE session was conducted bringing nutrition educators up to date with the work of the national youth outcome evaluation workgroup. During that session many questions were asked, primarily about how and when to use various nutrition evaluation metrics and measures. This appeared to be a strong need among educators. Though educators know the terms, they are often at a loss as to the specifics of when is a evaluation tool strong enough to show impact.

Nutrition educators are expected to utilize valid and reliable tools to conduct outcome and impact evaluation assessments of their educational programs. What really do we mean by “valid” and “reliable”? What is an acceptable level of rigor to expect for a tool to be used in an interactive, non-formal (sometimes chaotic) youth education setting?

Youth Nutrition Education Evaluation Reporting System (Y-NEERS) Youth Question Database (YQD)

Design: A repository of impact evaluation tools for use in assessing knowledge, attitude and behavior changes in youth learners participating in foods and nutrition education programs;

As a system through which selected youth impact evaluation tools, as well as the background information about the development and testing of the tools, can be shared;

As a system for collecting, summarizing and reporting youth evaluation results related to selected youth evaluation tools.

What is YQD?

Repository for the questions generated by states. Each will be linked to impact indicators from the CNE logic model. Every state will be able to choose the questions that best meet the needs of their state for age of youth, curriculum used, etc. It is separate from, but part of YNEERS

What is YNEERS?

YNEERS is the youth component of NEERS, the Nutrition Education Evaluation and Reporting System. NEERS is a multi-level system that includes the county (CRS) and state (SRS) sub-systems, as well as two independent, but connecting systems (the youth and adult question development tools).

Definitions of Key Terms

Validity: This is a general term meaning ‘accuracy’ of the question responses. Does the instrument measure what it is intended to measure?

1. **Content validity** is the extent to which the questions on the instrument cover the full range of meaning for the concept being measured. The content validity of an instrument is determined by a group of experts in the field of nutrition science, human development, EFNEP and FSNE.

2. **Face validity** determines “on the face of it.” This type of validity rests on the judgment of the developer and the clients (usually during a pilot test of the instrument.)

3. **Criterion and convergent validity** both relate to the predictive ability of an instrument/measure. With criterion validity, the performance or outcome that an instrument/measure is designed to predict is called a criterion. The validity of the criterion must be established because it is the standard by which the new instrument/measure is validated. Convergent validity examines whether an instrument/measure correlates in a predicted manner with variables that theoretically it should correlate with.

Reliability: Once again this is a general term and refers to ‘consistency’ of responses to the questions.

1. **Stability** focuses on repeated administration of the question with the same clients when no nutrition education experience is present. Does the question elicit the same response from youth each time it is asked? If it does, then we would say that the instrument is a reliable question with our low-income audience.

2. **Internal consistency** focuses on the extent to which clients respond the same or very similar to different items measuring the same domain (eg, fruit and vegetable behavior or goal setting knowledge or goal setting self-efficacy) on the instrument/measure.

3. **Sensitivity** is the extent to which values on the instrument/measure change when there is a change or difference in what is being measured.

Note: Definitions developed by Dr. Lisa A. Guion, Associate Professor, Department of Family, Youth and Community Sciences, University of Florida; and revised by Dr. Marilyn Townsend, University of California-Davis.