



University of Nevada  
Cooperative Extension



# Assessing and Reporting the Outcomes of Your Programs: A Quick and Easy Way to Evaluate

---

Walter Barker, Ph.D.  
Area Extension Specialist, 4-H Youth Development

## Introduction:

Have you ever asked yourself after the program you just delivered: I wish I had evaluated it? Then dismiss it by saying, "Oh it's a hassle to evaluate! Too much time and too much work." You can let this be a thing of the past. You can make your program evaluation quick and easy. Here is one method.

Evaluating and communicating the results of educational programs is a critical aspect of youth development work. Evaluation is the measuring of the goals and objectives that guide the program and the outcome that was planned. It helps with issues of accountability, program direction and even one's personal satisfaction. This fact sheet lays out the direction for a quick and simple way to assess the results of any program. It covers a system of data collection and analysis; the simplicity and accuracy of data collection; and immediate statistical data results. This is an electronic system that is interactive and engages the participants.

The process described in this fact sheet utilizes what is known as student response systems, classroom response system or "clickers." There are several brands of clicker systems on the market. Find out which systems are available to you by checking on their availability at your library or local university or community college.

For the fact sheet, we utilized one particular **clicker system** called Interwrite, but this is not meant to be an endorsement for this particular brand. This and other brands may be equally useful for assessing and reporting outcomes. A **clicker system** facilitates effective responses by encouraging student participation and providing the evaluator with a powerful and flexible electronic classroom performance system. It can be used in almost any group setting and engages participants to learn while having fun. It facilitates effective responses by:

- encouraging audience participation and
- providing the evaluator with an immediate indication of audience comprehension (Massey et al., 2005, Williams, 2006).

This methodology combines clickers with a projected questionnaire, which can be developed in one of many presentation programs, such as Microsoft PowerPoint or another software program. This methodology provides for rapid collection of responses and analysis with quick results. Most of all, it is simple to use by youth and maintains the interest of participants as they complete the answers to their responses.

A **clicker system**, Figure 1, can be used to encourage and enhance responses and to collect data for evaluation. The pre/post test data can be exported to a spreadsheet program, such as Microsoft Excel, for analysis. Microsoft PowerPoint software is used in conjunction with the “clicker” to develop the instrument questionnaire to evaluate the program’s outcome, but other software programs may work just as well. Questionnaire examples are shown in Figures 2A and 2B (pages 2 and 3).



Figure 1. A student uses a clicker

Q14: Because of this 4-H S.E.T. Camp, I have increased my confidence in understanding **MATH**.

1	2	3	4	9
Strongly Disagree	Disagree	Agree	Strongly Agree	Prefer not to respond

Figure 2A. Example of the pre/post evaluation

Q13: Before this 4-H S.E.T. Camp, I had great confidence in understanding **MATH**.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>9</b>
Strongly Disagree	Disagree	Agree	Strongly Agree	Prefer not to respond

Figure 2B. Example of a pre test question

# THE PROCESS

**Step One:**

The Program:

A display of a previous study results was used in the examples.

**New Faces, New Places**  
**An Introduction to 4-H for Urban Audiences**

*Clark County 4-H Youth Development Program*  
*University of Nevada Cooperative Extension*  
 2010

After identifying the goals and objectives of the program in question, develop the instrument for measuring the outcomes.

Example:

Goal (outcome):

The use of the **clicker system** and spreadsheet program to measure outcomes in 4-H programs are:

1. To introduce a new system of data collection in which every participant will understand and use clickers, which allows the presenter/ researcher to rapidly collect and analyze the results of 4-H programs.
2. To increase the simplicity and accuracy of data collection for the presenter/researcher.
3. To observe participants' reaction to the system.

Objective: Activity (what will be done to achieve the outcome):

1. Developing the questionnaire and the **clicker** software
2. The use of the "clicker" system

### **Step Two:**

Using the **clicker system**.

Follow the directions of the **clicker** software to enter the names of participants in the program. The process is not difficult and the instructions are easy to follow. Next, assign numbered "clickers" to participants.

### **Step Three:**

Activate presentation instrument by starting the presentation in the show mode.

# Welcome!

You are being asked to participate in a research study to evaluate the *New Faces, New Places-An Introduction to 4-H for Urban Audiences (NFNP)*.

You may participate in the program without participating in the study.

Your grades and other school services will not be impacted in any way as a result of participating or not participating in the study.

## Instructions

Each of you have been given a Personal Response System radio frequency clicker that works like a television remote control. To answer a question, simply press the number or letter button that corresponds with your answer.

For example, let's look at the following question:

Which animal listed below is **most likely** to be found living in Nevada:

1. Jackalope
2. Kangaroo
3. Jack rabbit
4. Polar bear

Each of you should have pressed the number "3" button.

Are there any questions about using the clickers?

Q3: Before this 4-H S.E.T. Camp, I knew \_\_\_\_\_ about BASIC SCIENCE.

1	2	3	4	9
Nothing at All	Very Little	Some	A Lot	Prefer not to respond

Q4: Because of this 4-H S.E.T. Camp, I know \_\_\_\_\_ about BASIC SCIENCE.

1	2	3	4	9
Nothing at All	Very Little	Some	A Lot	Prefer not to respond

#### Step Four:

Review the analysis and the results.

#### Results

The **clicker system** did increase the accuracy and response rates of data collection (Figures 4A and 4B, page 7). Of the 600 youth participants, 75 percent completed the 12-session program). Ninety percent were satisfied with the use of the **clicker system** and had shared their experiences with other youth outside of the group. Overall, participants were very excited about using this system and expressed a desire to use them if they were allowed in their classrooms.

The data from the **clicker system** can be exported into a spreadsheet program where the analysis can be done. The results of the data analysis can be viewed under different formats.

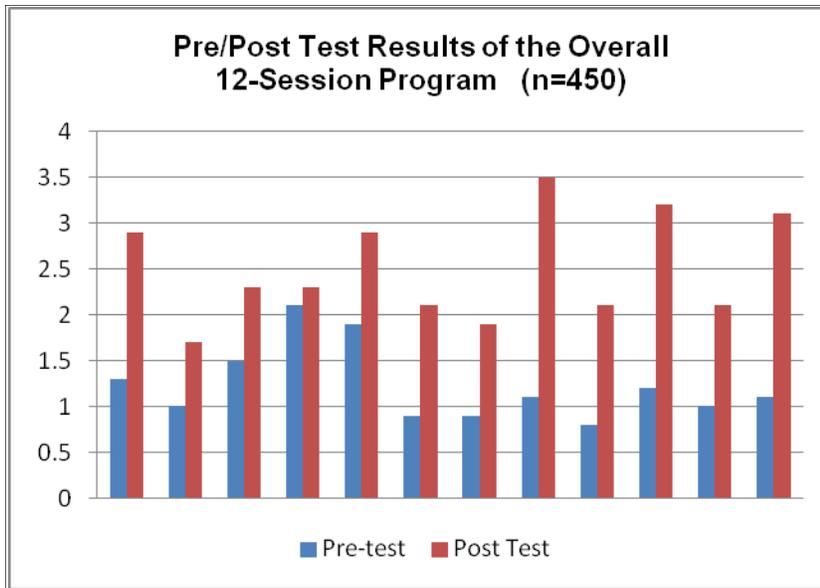


Figure 4A. Results of the overall program activities pre and post test

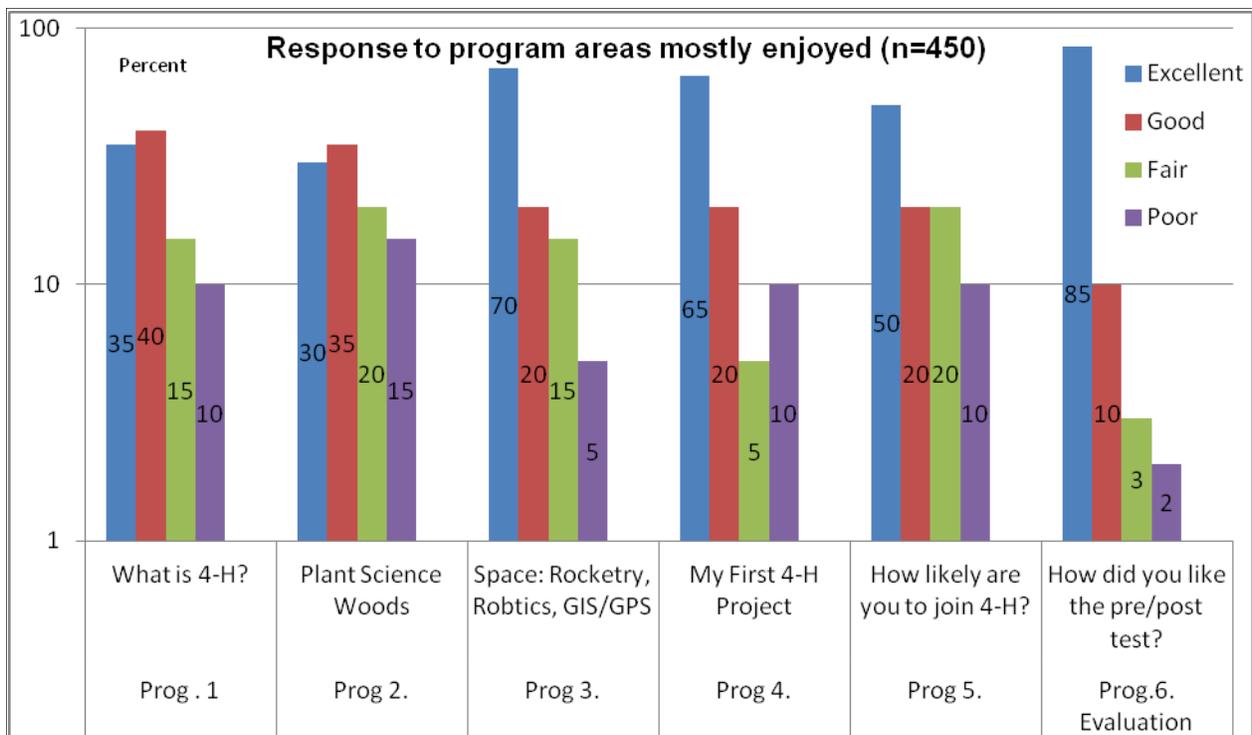


Figure 4B. Graph of program responses

## **Observations:**

- Positive aspects of the use of this system.
- Very high interest and participation in the program; participants were always anxious to use it. They were not intimidated by it and most asked if they would receive a unit to take home.
- Rapid responses.
- A user-friendly and convenient method of data collection. More than 90 percent of the questions were answered, illuminating missing data.
- Increased accuracy of data collection, management and analysis.
- Ease in exporting data to spreadsheet program and a general statistical software program for intensive analysis, if needed.
- Easy to learn and use the system.
- Diversity in the different responses to the questions.
- Very portable. Set up can be loaded on a laptop computer.

## **Challenges with the use of the system:**

- All participants' information should be entered and clickers assigned prior to use.
- This causes a challenge if the entered participant does not show up for the pre test (opportunity for missing data).
- Test run should be made prior to its use to eliminate problems and frustration on the part of participants.
- This method can only be carried out by individuals who have prior training using the system.
- This system does not allow for any qualitative responses.
- Personal response systems can easily be found during a "search" on the internet.
- Prices vary depending on the type of system needed.

## **Implications and Recommendation**

The **clicker system** is one of several tools to use in program evaluation. It is very simple to set up and creates great interest with participants. This system can be used extensively in most 4-H youth development programs. The system can provide data analysis at any level.

## References

Barker, W., and Killian, E. (2009) Tips and Tools: The Art of Virtual Program Evaluation - Measuring What We Do with Pizzazz. In Press.

Massey, R., Jaskolski, N., and Sweets, L. (2005). The use of personal response transmitters in Extension Settings *Journal of Extension* [Online], 27(1). Available at: <http://www.joe.org/joe/2005december/tt4.php>

Williams, V.S. (2006). Teaching and Learning with Technology-Personal Response System Evaluation Report [Online]. Available at: <http://clc.its.psu.edu/Classrooms/prs/PRS-Report-02122007.pdf>

For additional information, please contact:

Walter Barker, Ph.D.  
Area Extension Specialist, 4-H Youth Development  
University of Nevada Cooperative Extension  
(702) 257-5538  
[barkerw@unce.unr.edu](mailto:barkerw@unce.unr.edu)