Online Appendix

Karuk Youth Development, Research Skills, and Technology Training

Overview

The purpose of the trainings was to facilitate youth in learning how to become researchers while giving them an opportunity to determine how they wanted to use those skills in their community. The trainings utilized interactive small-group and full-group exercises, individual reflections, report-outs, and other activities. Activities were offered in short segments of approximately 30 min each, interspersed with physical breaks. The variety of activities were also designed to elicit active participation, motivate each participant to take on a leadership role, and offered opportunities to develop and demonstrate visual and verbal communication skills. The trainings made use of culturally relevant metaphors to help youth relate to the materials being presented.

The training materials and facilitation approach were developed by the project team made up co-authors on this paper: university researchers (led by K. Kim), community members and representatives of the Karuk Tribe (led by G. Gilkison), and the youth team in collaboration with The Youth Leadership Institute who are specialists in the field of youth development.

Training 1: Leadership and Research Skills

The objective of this training was for the Karuk Youth Leadership Council members and adult staff to gain the knowledge and capacity to start up and carry out a youth-driven assessment of their community food environment using at least one assessment method. This initial training took seven hours and was delivered during a weekend retreat. At the beginning of the training, YLI led a warm-up activity to get participants comfortable with each other, and establish "group agreements" for the day. The training covered research skills and helped youth learn about different ways to conduct research and health assessments. This included introducing and distinguishing between qualitative and quantitative research. Throughout the training, discussions helped the youth identify how they wanted to conduct research in their own community. The training used culturally relevant metaphors. For example, one learning goal was to understand the broad steps the participants will undertake in carrying out their community action, and see how the assessment component fit in the broader process. The metaphor utilized was a river to show youth the journey they were taking with rapids or deadfall on the river as milestones. Another key piece to the trainings was the use of 'energizers', which were small breaks to do a fun activity to get the group refocused. The deliverable was a research topic and data collection method(s) agreed upon by the youth.

Training 2: Survey Development and Interview Techniques

The second training focused on the youth's chosen research topic and research method: a verbally-administered survey assessing community views on health and food security. The training covered sampling, item development, and survey administration. During the workshop, the youth identified survey questions of interest and learned about the various types of survey response options including Likert scale, multiple choice, and open-ended. They brainstormed how to conduct outreach and recruit survey participants and developed a plan for recruitment. Finally, they learned about interview techniques to maintain objectivity and reduce bias. This training was conducted via video conferencing over several hour-long sessions.

Once the survey was developed, an in-person session was conducted to orient the youth to the survey tool which was an application on an iPod Touch, and to practice interview/survey data collection procedures. We also provided assistance and support as the youth collected data via phone calls and emails.

Training 3: Introduction to Data Analysis

In the third training, the youth were exposed to the basics of descriptive data analysis and determined what types of analysis would be helpful in understanding the data they were collecting, e.g., response rates, comparisons by town, age group, and gender. The university research team suggested statistical analyses that might answer the questions the youth raised, as well as other questions for consideration. The statistical analyses were conducted by the university research team. This workshop was conducted via video conferencing.

Training 4: In-depth Data Analysis and Actions in the Community

The final training focused on interpreting the findings from the completed statistical analyses, discussing ideas for dissemination and, determining what actions to take based on their findings. The objective was to create a concrete action plan with next steps that could be accomplished within one year, as some of the youth were graduating high school and leaving for college or taking jobs. The youth developed presentation materials and wrote a newsletter article. This training occurred during a weekend retreat.

Outline of Training Materials

1. WELCOME & ORIENTATION
   1.1. Icebreaker: "ME TOO!"
   1.2. Overview: Environmental Prevention, huh?
   1.3. Overview: "What's This All About Anyways?" (ALL)
   1.4. Closing
2. ENVISIONING CHANGE
   2.1. Check Your Vision
   2.2. Ch-ch-ch-ch-changes
   2.3. Currents
3. ROOTS AND VINES
   3.1. Icebreaker: "MY ISSUE"
   3.2. Roots and Ivy
4. WHAT IS RESEARCH? WHY RESEARCH?
   4.1. Question Game
   4.2. Research Is…
   4.3. I'm a Researcher?
5. EXPLORING WAYS TO DO RESEARCH
   5.1. Trying them on for size
   5.2. Survey
   5.3. Small Group Discussion (Focus Group)
   5.4. One-on-one interview
   5.5. Graffiti Wall
   5.6. Different Kinds of Data Collection Methods
6. QUANTITIVE DATA ANALYSIS
   6.1. That's So Predictable…
   6.2. Data Jeopardy
   6.3. Analyzing and Using Data
   6.4. Show Me the Data!
   6.5. …Or Is It?
7. CHOOSING A SOLUTION
   7.1. Overview
   7.2. Choosing a Solution
8. TECHNOLOGY USER GUIDE
   8.1. iPod
       8.1.1. iPod How-To
       8.1.2. iPod Instructions
   8.2. Magpi
       8.2.1. Downloading data Magpi guide
       8.2.2. Magpi Update Survey Instructions