

Wimpfheimer-Guggenheim Essays Competition

Winning essay from 2013

Experience as Education: Participatory Research as a Means for Transferring Nutrition Knowledge To Youth and Community in Freetown, Sierra Leone

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Background

Over a decade after Sierra Leone's civil war, the still-inchoate democracy faces many challenges to national development. Widespread chronic malnutrition especially threatens national progress, afflicting 34% of children between 6 and 59 months of age (World Food Program 2011). Insufficient nutrition awareness is a key factor contributing to poor nutritional health. I was challenged to teach nutrition to Sierra Leonean youth in a way that addressed these barriers to nutrition development.

Participatory efforts, when sensitive to community needs, can facilitate learning. While working with a non-governmental organization in the capital city of Freetown, I engaged with twenty-two local students to educate them on nutrition topics that they chose and then involved them in a community research project that reinforced their understanding of those topics. The research project, which assessed food access and dietary diversity, required students to develop a research survey, collect data, assess the results in a final report, and share the results with community members. Overall, these students gained an intimate understanding of contextualized nutrition concepts that they then used to educate at least 213 households and influential organizations. Furthermore, the students became invested in the research process and demonstrated a further desire to improve the nutrition status of their community. Employing participatory research as an educational strategy not only facilitated information dissemination but also meaningfully fortified these students' nutrition knowledge, achieving a broader goal of increasing nutrition capacity.

The Approach

Participatory approaches are rooted in community approval. Inviting the students to define their educational needs and then designate a relevant research topic allowed for a tailored approach to delivering nutrition information. Capturing local knowledge by including prominent local

figures in the process ensured that research outcomes accounted for the unique context. Participatory research is also bolstered by social networks within communities, which act as a mechanism for further diffusion of nutrition information.

In addition to increasing the durability and reach of nutrition information, participatory research also confers long-term returns. The research process builds nutrition-related skills and cultivates interest in nutrition, acting as an investment in advancing nutritional health objectives. The research process strengthened the students' understanding of relevant nutrition concepts while instilling a sense of ownership over their own nutritional health, as well as the nutrition health of their families and friends. These Sierra Leonean youth were empowered to recognize and address nutrition issues, ultimately becoming agents of their own nutrition development. Finally, this approach is widely accessible, as it requires few resources and can be fluidly incorporated into existing organizational curriculums.

Preparation

The Freetown-based organization I work with runs educational programs for students in local schools. I provided classroom instruction on student-selected nutrition topics that included micro and macronutrients, nutritional health, nutrition-related chronic diseases and food security. I proposed a nutrition research project to the students, who chose to assess food access and dietary diversity, topics that appropriately complemented their classroom education within their community. Our organization guided students throughout the research process but they were primarily responsible for research implementation.

Students met with the appropriate community figures to explain their research intentions, obtain formal approval to carry out research and arrange a date for survey administration. The community's Chief assured them that participation would be encouraged.

The survey we used to collect data was developed by the [United States Agency of International Development's \(USAID\)](#) and the Food and Nutrition Technical Assistance II (FANTAII) agency measured food access and dietary diversity specifically in West African countries. The final questionnaire measures a household's frequency of consuming foods in specific nutrient groups and includes a food access scale to assess food availability. Validated surveys on these and related topics have been published for use and are well suited to participatory research initiatives.

Survey Translation and Adaptation

Adapting and translating a survey ensures that concepts are communicated accurately, terminology is understandable and content remains consistent through translation or changes.

1. Survey Preparation

An educated native Sierra Leonean was chosen to be the "chief survey reviewer." Using the USAID survey as a template, we removed foods unfamiliar to the region and include

locally available, culturally common foods and terms. Meanwhile, student researchers visited stores and spoke with members in the target community to note the availability of fortified food products.

2. **Initial Translation**

Three students from the research team who spoke English (the language of the organization) and Krio (the primary language of the community) translated the survey questions individually, from English into Krio. The students' translations were brought to the chief survey reviewer, who translated the Krio interpretations back into English in order to identify discrepancies in the meaning of words or phrases. Finally, the student translators met to discuss their translation variations and decide the most accurate translation for each question.

3. **Review the Module with Key Informants**

A series of meetings with key informants (who spoke both Krio and English) were organized in the survey locality. Key informants were government officials, employees of organizations involved in nutrition-related work, women in the community responsible for household food preparation, community leaders, community-level extension workers, local professors and nutrition experts. A research team member led the meetings, reviewing the survey module in a discussion ensuring that questions and key terms retained their actual meanings through the translation from English to Krio. Afterwards, the key informants' suggestions for changes were incorporated into the Krio version of the survey.

4. **Back-Translation of the Survey**

An independent translator with no prior knowledge of the questions translated the survey with all the cumulative changes from Krio into English. The goal was conceptual equivalence of the original questions in the translated language. The final product of this step was a draft survey that is ready for pre-testing.

5. **Survey Training and Testing**

I trained the research team on correct survey administration technique. We reviewed the questions and the definitions of key terms and concepts that were identified during the translation and adaptation process. Students were given a copy of the survey and research logs where they recorded participant responses. Students pre-tested the translated survey on their families and then met to discuss the issues they faced in administering the survey. Further modifications were made as necessary.

6. **Survey Finalization**

A Krio version of the survey was finalized for use in the field.

Survey Administration and Analysis

Before travelling to the target community we reviewed survey administration protocol. Once in the community, students were divided into supervised groups and administered surveys to as many households as possible. Afterwards all the research logs were collected. The raw data was codified and enumerated using descriptive statistics. Results were shared and discussed with the students, who were assigned to write specific sections of a research report including the

introduction, methods, results, discussion, conclusion and key findings. It should be noted that this drafting process was handwritten.

The organization's staff mentored students regularly, reviewing and editing their work and providing additional instruction as necessary until a cohesive report was drafted. The research report was an evaluation tool to measure how well the students had absorbed basic and conceptual nutrition information. This process of critical analysis reinforced nutrition knowledge and taught additional skills like surveying data input, statistical interpretation, and analytical thinking.

Research Presentation

The students returned to the target community, where they had come to be viewed as "experts," to educate members on their research findings and teach them how to improve their nutritional health. Through a partnership with a locally prominent health organization, [Marie Stopes International](#), they performed malnutrition screens on community members. The students also presented their research at the [World Food Program](#) office where they interacted with national actors. They were proud that their work was recognized by these organizations and were excited to put important nutrition information in the hands of powerful nutrition agencies, furthering the capacity for societal contribution.

Conclusion

Applying nutrition information to the dynamic participatory research format maximizes the reach of that information and more importantly supports broad nutrition goals. In addition to solidifying and disseminating their nutrition knowledge, these Sierra Leonean teens were empowered to become agents of their own nutrition development. Nutrition professionals can employ new methods of disseminating nutrition information to sow the seeds of a healthier global progeny. The originality of these approaches is measured by the ability to cultivate nutrition values and potentiate meaningful change in nutritional health. My experience directing participatory research in Freetown, Sierra Leone, achieved these objectives.

Without community input this research would be impossible, thus necessary steps must be taken to protect participants. All intended research must undergo formal approval by the community and an ethics board before being conducted.

Paul Thoronka, a 16 year old research participant, reflects:

"The nutrition research in Sammie Town has enhanced my understanding of dietary diversity and I was also able to use Microsoft Excel for the first time in inputting our data from the surveys. Moreover, it has enabled me to talk to people in my family about nutrition and food security, which I believe has created a positive impact in our lives because we now know that taking in more of cereals and fats/oils will not provide us with all the necessary nutrients we

need to make us grow healthy. Therefore we are now trying to eat more diverse foods to make sure that our diets are balanced."

References

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