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Experiences and Lessons Learned: **Implementing the Ripple Effects Mapping Method**

Ripple effects mapping (REM) is a qualitative, participatory group method for evaluating complex programs. MEASURE Evaluation—a project funded by the United States Agency for International Development (USAID)—adapted and used REM to supplement traditional evaluation methods and increase stakeholder participation. This brief shares how the application of REM was carried out in two studies in sub-Saharan Africa and lessons learned from the experience.

Background

Ripple effects mapping (REM) engages stakeholders to map intended and unintended consequences, or ripples, of a program retrospectively and visually (Kollcok, Flage, Chazdon, Paine, & Higgins, 2012). REM is a cost-effective and straightforward process. It can energize participants to celebrate their achievements and build momentum toward future goals (Chazdon, Emery, Hansen, Higgins, & Sero, 2017).

This innovative, emerging technique was developed to capture the impact of complex programs and collaborative processes. It uses elements of mind mapping, appreciative inquiry, and group interviewing.[1] It was originally used for the evaluation of community development programs in the United States (Chazdon, Emery, Hansen, Higgins & Sero, 2017).

An REM session is conducted in two steps: (1) appreciative inquiry between two people, followed by (2) interactive group reflection and mapping. The map produced during an REM session outlines the ripple effects of a program based on the group discussion. Further analysis and mind mapping can be completed using a mind mapping software, such as Xmind or MindManager.

[1] Mind mapping is a visual method to help the group reflect upon and map intended and unintended changes of the program or intervention. An REM session begins with participants interviewing each other using an appreciative inquiry approach. For example, an appreciative inquiry question might be, "What is a highlight, achievement, or success you had based on your involvement with this program/project? What did this achievement lead to? What happened next?" Group interviewing is led by the facilitator with concurrent visual mapping by a co-facilitator or mapper (Chazdon, Emery, Hansen, Higgins & Sero, 2017).

Applications

Tanzania

REM was used in Tanzania as part of an evaluation of a public-sector systems strengthening project to elicit information on the outcomes of training for local government area (LGA) councilors. The training aimed to enable the LGA councilors to improve their practical knowledge, skills, and attitudes about good governance and citizen engagement; their roles, responsibilities, and rights; management of LGA human and financial resources; and related topics. The researchers used REM to obtain participant feedback on the perceived training outcomes that might not have been captured otherwise. The REM method was selected because it focuses on outcomes and goes beyond a typical focus group discussion by including the visual mapping.

The REM training for facilitators had two parts: (1) a mock REM session, during which the researchers leading the training took on the roles of REM facilitators and a map maker, using a topic with which all trainees had experience (namely, higher education); and (2) a second mock REM session, during which some REM trainees acted out the roles of the LGA councilors as if they were study participants, with other trainees practicing facilitation and mapping.

Data were collected through the implementation of six REM sessions, with eight LGA councilor participants each. The sessions were led by a main facilitator, with a co-facilitator/mapper and a notetaker documenting and clarifying participant responses, as necessary. Local councilors are often outspoken; the participants were very eager to share their opinions. This made facilitation challenging at times,

especially to get the thoughts of less-vocal participants. However, the relatively narrow focus of the REM session—the outcomes of the councilor training—made facilitation more straightforward.

The participants appreciated the visual nature of the exercise because they could see that the map documented what they had discussed. Compared with a typical group discussion, the mapping format allowed them to identify gaps more easily. The participants also mentioned that the map showed them how much they had already learned and accomplished. This energized them to do more with what they had learned in the training.

The maps were created during the discussion session and were reviewed in real time with participants for reflection and interpretation and to identify gaps. Following the REM sessions, physical maps were translated into English and entered in MindManager, a software designed to capture and analyze mind maps. Researchers identified additional connections between related outcomes and compared them with themes in the evaluation's qualitative data from individual interviews. Commonalities across locations were also identified and highlighted. Notes were used to provide deeper insights and, together with quotes, were linked to corresponding threads on the MindManager map, when possible.

Figure 1. Map from the Tanzania REM session

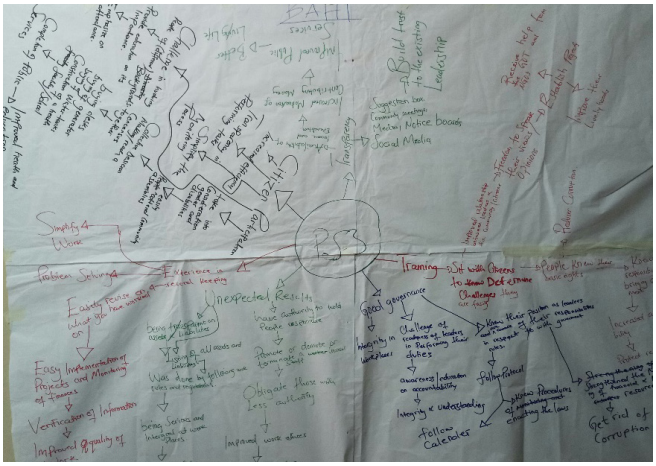
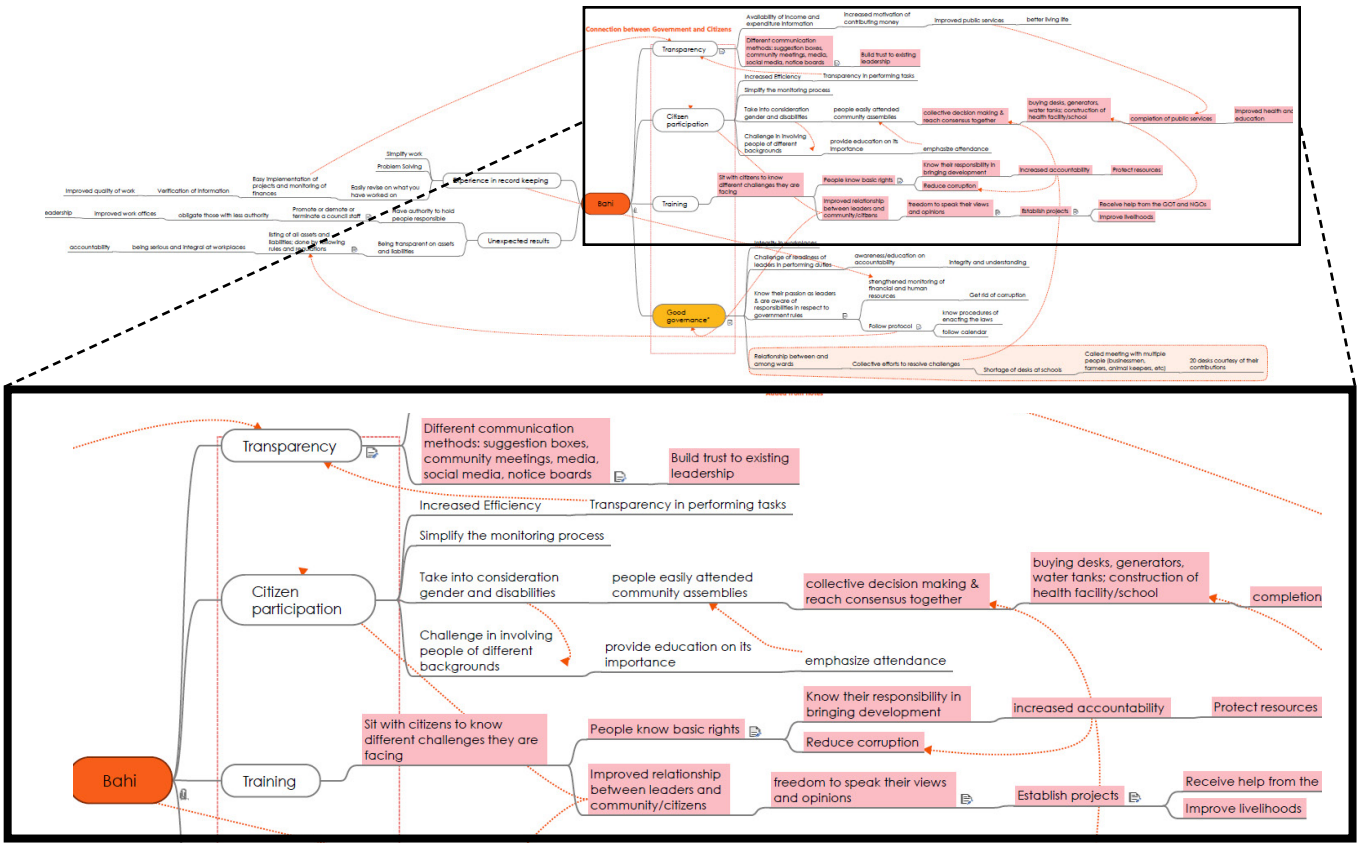


Figure 2. Map created in MindManager from the Tanzania REM session (extract enlarged below for readability)



Botswana

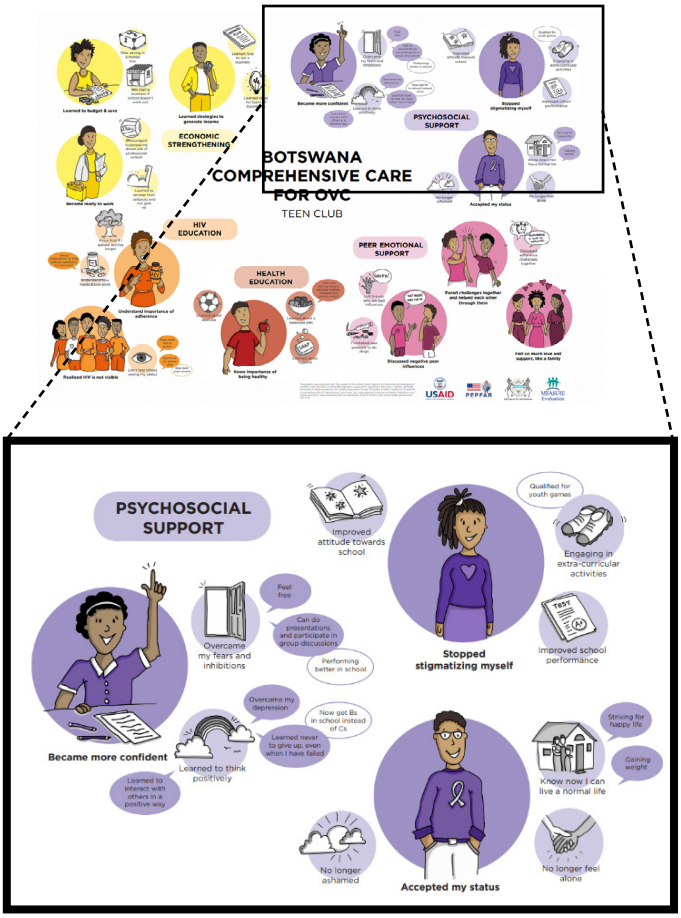
REM was applied as part of a mixed-methods evaluation of USAID-funded services for orphans and vulnerable youth in Botswana. The approach was used to supplement traditional quantitative and qualitative data because of its ability to elicit experiences and reflections from youth who participated in an intervention that aimed to improve educational, economic, and health outcomes. Two REM sessions were conducted with HIV-positive youth and two with HIV-negative youth, with a total of 28 participants.

The REM sessions were led by an experienced facilitator; another researcher did the mapping during the discussions, which were audio-recorded. The facilitator and co-facilitator/mapper received training from MEASURE Evaluation on REM facilitation, which included a mock REM session with local data collectors. A pilot session was also conducted with participants in a local youth club that was part of the evaluation, and lessons learned were used to improve the technique for future sessions. During the REM sessions with the youth respondents, the process of drawing the map and using different colors for the ripples was found to be distracting for some participants, leading them to focus on the color or exact wording of what was being written. The facilitators therefore decided to complete the mapping away from the center of the room, and then bring it back to the group for discussion at the end of the session. At this time, participants were able to consider whether the map was a true reflection of their experience, if there were any gaps from the discussion that needed to be added, and what had been the most significant change.

The youth were initially hesitant to share their stories and outcomes because of the sensitive nature of what was being discussed. The facilitators addressed these concerns by stressing the importance of confidentiality among peers and reminding the respondents that no identifying information was being collected. Once the youth began to open up, the facilitators faced challenges documenting the richness of the stories on the map and the depth and breadth of the outcomes, especially because the intervention addressed a broad range of health, economic, and educational outcomes. Following the discussion, the respondents felt a sense of pride and accomplishment when reflecting on the map.

The physical maps and drawings created during the REM sessions were documented through photographs and recorded in the XMind mapping software. The researchers reviewed the maps and written transcripts to identify emerging themes, perceived results of the intervention, and the impact of those results, according to the respondents. Two of the four maps in XMind were graphically illustrated to show program outcomes more effectively, in an easily digestible format. Figure 3 provides an example.

Figure 3. Final graphic illustration of the Botswana REM session for a program called Teen Club (extract enlarged below for readability)



Advantages of REM

- Post-data collection analysis time is reduced compared with the analysis time of typical focus group discussions because the mapping sessions are essentially participatory analyses of intervention effects and yield maps of outcomes.

- The map is a useful tool to instigate further discussion and details about intended and unintended outcomes during the REM session and afterwards.
- Final maps create a sense of pride and accomplishment among respondents.

Lessons Learned

- Facilitators should be well trained in group facilitation and management to ensure that all participants have the opportunity to share and that discussion groups stay focused. For example, a facilitator should be able to manage a group with outspoken leaders and a group of shy young people.
- Mappers should be well versed in the program components and theory of change, and should have analytical skills and adequate training to distill key aspects related to the evaluation and examples for the evaluation. This will help the facilitator and participants make connections and identify themes during reflection.
    - For example, noticing that various examples pertained to increased self-confidence in different educational scenarios, which also led to improved school performance, would be a theme for the mapper and facilitator to pull out and highlight for discussion.
- Mappers and facilitators (and notetakers, if applicable) should work together to ensure that all ideas are captured, and to clarify responses and begin analysis during the REM session by identifying themes with participants.
- Facilitators and mappers may need support and practice to identify and map medium and long-term outcomes, as opposed to only outputs and short-term outcomes of an intervention. This involves probing and asking for examples to understand the outcome. For example:
    - Participant: We learned how to manage finances.
    - Facilitator: Ok, and then what happened?
    - Participant: I developed a budget and needed less guidance than I normally do.
- Conduct two pilot sessions, if possible, to help the facilitator and mapper learn and practice the skills needed for REM. If two pilot sessions are not possible, include multiple mock REM sessions during REM training for facilitators and mappers.
- Complex programs may need to be divided into different topical areas (e.g., health, education, and economic strengthening). Relatedly, REM sessions of complex programs may need to use multiple pieces of paper if one flip chart cannot capture all the ripples.
- Visual mapping is a new concept for many participants, especially youth and other people with less formal education. More explanation of the mapping process may be needed to assure understanding.
- REM can help further the effects of an intervention. The final maps can energize participants to think about additional things they can do with the skills and knowledge they have gained from the interventions.

Annotated Bibliography

MEASURE Evaluation. (2019). *Midline evaluation of the Tanzania Public Sector System Strengthening Program: Final report.* Chapel Hill, NC, USA: MEASURE Evaluation, University of North Carolina. Available at https://www.measureevaluation.org/resources/publications/tre-19-26.

USAID commissioned MEASURE Evaluation to conduct an evaluation of the Public Sector System Strengthening (PS3) project in Tanzania. This report presents the findings of the midline performance evaluation of PS3 that examined time trends and pre- and post-program inception changes in the uptake of health services and in financial and human resources indicators. The evaluation used qualitative methods, including REM, to examine the perceptions of program implementers, community members, and other stakeholders about the adoption and performance of the PS3 project, its strengths and remaining challenges, and the stakeholders' recommendations of ways to address the challenges.

Mandal, M., Cannon, A., Parker, L., Halldorsdottir, I., & Millar, E. (2019). *Evaluation of services for orphans and vulnerable youth in Botswana: Final report*. Chapel Hill, NC, USA: MEASURE Evaluation, University of North Carolina. Available at https://www.measureevaluation.org/resources/publications/tre-19-24.

This evaluation, conducted by MEASURE Evaluation, aimed to understand how orphans and vulnerable children (OVC) programming prepared older youth to be healthy, productive young adults. It examined the effects of OVC services on the educational, economic, and health outcomes of older youth graduating from Government of Botswana and United States President's Emergency Plan for AIDS Relief-funded programs. This mixed-methods evaluation used the REM method to supplement and validate qualitative and quantitative findings to better understand youth experiences and outcomes. In addition to the final report, MEASURE Evaluation prepared a brief on the qualitative findings from the evaluation. It is available at https://www.measureevaluation.org/resources/publications/fs-19-393.

References

Chazdon, S., Emery, M., Hansen, D., Higgins, L., & Sero, R. (2017.) *A field guide to ripple effects mapping*. Minneapolis, MN, USA: University of Minnesota Libraries Publishing. Retrieved from https://conservancy.umn.edu/handle/11299/190639.

Kollcok, D.H., Flage, L., Chazdon, S., Paine, N., & Higgins, L. (2012). Ripple effect mapping: A "radiant" way to capture program impacts. *Journal of Extension*, 50 (5). Retrieved from https://www.joe.org/joe/2012october/tt6.php.

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