

Ten Seed Technique (TST)

Frank G. Cookingham, May 2015

The ten-seed technique is a modified PLA (Participatory Learning and Action) tool that has been extensively used in community development programs. It identifies group perceptions of issues that do not require anything beyond local language speaking ability and the ability to count from 1 to 10 along with an understanding of less and more of something.

As participants work with the technique their right brain is activated. The right brain controls creative, analytical and perceptual functions. The TST exercise uses physical movement of seeds and symbols and diagrams to keep the right brain orientation. This is important because it improves access to information that is directly related to experiences and intuitions people have in their memories relevant to whatever is being discussed but may have not been logically processed.

See Jayakaran (2002) for numerous and diverse community development topics that can be explored with TST, and for detailed advice about facilitating the exercise. See Kumar (2002) for an extensive compilation of PLA tools. See Jackson and Kassar (1998) for examples of various participatory approaches to evaluation.

This paper contains major points from Jayakaran's excellent manual, and suggestions for using TST in Transformative Evaluation (TE) as described by Cookingham (2013). TE refers to evaluating from a holistic perspective what really matters as Transformational Community Development programs are planned and implemented.

TST exercise

Jayakaran (2002, pp. 11-13) describes how he uses the exercise in a village workshop. "After initial rapport building with the group and explaining to them that the purpose of the exercises is to understand and learn from them about the perspective; we proceed with the technique.

"The group is given the ten seeds and asked to consider them to represent the entire population under study. They are then asked to move the seeds around into groups representing the aspect being analyzed. Once the groups of seeds have been formed the participants are asked to describe them and give details on reasons for classifying them the way they have done. Further details are then sought on indicators that determined the segregation. Each group of seeds now has a very distinct identity accorded by the participants, and discussions can now proceed around the "visual" created.

[FGC note. It is important to move seeds first into groups before describing what the groups represent. This activates the right brain functions.]

“Discussions now proceed around the “visual” and become very intense and animated. After finalization the information is transferred on paper for sharing with the larger group. [For example, a group could create two groups of seeds to represent the proportion of people that use birth control measures regularly.]

“After this is done, we proceed further to ask more details, looking for example at the types of birth control measures used. The group is asked to look at the ‘visual’, and pointing to the 8 seeds representing the population that regularly practices birth control measures, we ask for them to divide these further in terms of the types of measures practiced. This can be done in two ways, either just asking them to divide the eight seeds, or by again taking ten seeds and asking them to consider these seeds to represent those who practice family planning measures regularly.

“[For example, the group may divide the seeds further into 5 groups showing the pattern of distribution.] Thus, by looking at this it is possible for identifying what percentage of the overall population approximately uses a particular type of birth control measure. For example in the case above we found that the community was under the perception that they were quite well protected against HIV/AIDS, because a fairly high percentage of them were using birth control measures. They had, in their thinking, equated ‘protection’ against pregnancy as being protection against HIV/AIDS. Discussions around the visual then could proceed to understand why this was so.

“Depending on the purpose of the exercise we can proceed further. As in the case mentioned above the purpose was to find out the condom usage prevalence rate, because another exercise in the same community had shown a fairly high level of promiscuous behavior among them. The exercise thus enabled us to see that only 30% of the birth control measures in use were condoms, which also did not provide them 100% protection against the spread of HIV/AIDS.

“Thus the exercise can also be the basis of discussions for modification of behavior when the community ‘discovers’ how much at risk it is. These discussions can also lead into understanding appropriate interventions in the community for modified or changed behavior. Other exercises can be linked to this to find out how the community gets its information on family planning and thus we can identify the best and most effective strategy for intervening in the community.”

Generally TST is used with a group of 8-10 people. The most valuable information will emerge as people discuss their views as they move toward consensus on the arrangement of the seeds and the descriptions for each group in the arrangement. Thus it is important that each participant has an authentic opportunity to state his or her views. Jayakaran has valuable advice for dealing with participants that are dominating a discussion.

A small team of facilitators is needed to implement the exercise.

- The discussion leader establishes a positive and respectful tone prior to working with the seeds, and maintains it throughout the exercise. The leader must be open to new perspectives and must expect to learn something in every exercise. This is the most important factor for the exercise to yield useful information.

The leader explains the purpose of the exercise and what participants will be doing. He or she should verify that everyone understands the purpose and how to participate. A simple warm-up exercise with a neutral topic may be helpful.

He or she is then responsible for ensuring participation by everyone, and balancing the amount of contribution made by each participant. Listening carefully to every contribution will encourage others to listen carefully. The discussion leader keeps the discussion on topic at a relaxed pace.

- The recorder documents the views that are shared throughout the exercise. At the end of the exercise the recorder presents his notes to the group for verification or correction.
- The observer makes notes on the behaviors of participants. Are they listening to each other? Are they respecting diversity in views? This context information can help as the group's responses are analyzed and interpreted.
- Jayakaran (2002, p. 14) describes the role of a "filter" as a person respected by the group participants who may take someone aside who is dominating the conversation. The filter conducts a key informant interview and documents the information provided by the informant. This allows others to contribute their ideas and provides more detailed information from the informant.

Ask questions that open up information

Open-ended questions activate the right brain more than questions that can be answered with yes or no. The purpose of asking questions is for everyone to learn and understand the topic being discussed. Start at a basic level and gradually move into different dimensions of the topic at deeper levels.

The questions are asked about the emerging visual arrangements of the seeds and the symbols and diagrams used to describe them.

Illustration

Suppose farmers are trying out a set of tasks to improve their crop yield. One way to use the technique is to list the tasks the farmers are to complete in the project on a large sheet of paper that has three columns headed completed by few farmers, completed by most farmers, completed by all farmers. Have a group of farmers meet to work on the

chart. Each farmer gets ten seeds, and puts the ten seeds on the chart in the three columns. As many seeds can be put in any cell as the farmer decides; the more seeds he puts the more important he believes that task is. As the farmers put their seeds on the chart the facilitation team listens carefully to the conversation and makes notes.

Hypothetical Data for Three Farmers

Q= first farmer seed; O=second farmer seed; o=third farmer seed

Task	Completed by few farmers	Completed by most farmers	Completed by all farmers
First task	o o o o o		Q Q; o o o o o
Second task		Q Q Q; o o o o o; o o o o o	
Third task	o o o o o		
Etc.			

Comments on the result:

- All three farmers said that the second task was completed by most farmers. This cell has the most seeds (13/30); that suggests that as a group this is viewed as the most important task.
- Two farmers said that the first task was completed by all farmers, but one said that the task had been completed by a few farmers. This is worth discussing by the group; perhaps different farmers understand the task differently.
- Only the second farmer put seeds with the third task; he put more seeds there than on any other task. Why does he believe it is so important while the other two farmers do not see it as important as the first and second tasks?

When all of the farmers have finished placing their seeds, the group discusses the arrangement of the seeds and what it means. The recorder and observer make notes while the discussion leader encourages each person to speak. The group creates a statement that describes progress from their point of view, and what they should do next as farmers in the project.

This exercise can be repeated at intervals during the project. Reflection on trends can lead to helpful insights.

Advantages of TST

- It is easy to understand and easy to use. However, the more skilled that facilitators are the more useful the results will be.
- Groups with all levels of literacy can use it effectively.

- Children and adults can use it effectively.
- Seeds are available everywhere.
- The results are visual. The physical activity of moving seeds around on a diagram is just as important for literate groups as illiterate groups. Encourage people to think aloud as they move seeds, and to understand the different thoughts expressed by others. The final number of seeds in different parts of a diagram is usually less informative than the thinking that is taking place as they are arranged and rearranged.
- It demonstrates how creating information can empower community members to work toward a better future. When an NGO does monitoring and evaluation without involving the community in it and enhancing their m&e skills, indicator results may be good. But when the NGO is finished in the community, indicator results will get worse, even if the program was a good one.

The sponsor for the exercise should be prepared to constructively address issues, hopes and dreams in a timely manner soon after they are discussed during the exercise. People that make themselves vulnerable in uncovering information that matters to quality of life in the community deserve to see appropriate action taken.

It can be part of a monitoring system that tracks perceptions of progress toward planned goals and objectives.

TST as a measurement process for indicators

Situation analysis

TST is an excellent technique for identifying indicators that make sense to the community. From the perspective of Transformative Evaluation this is the primary value for using TST. Concepts that really matter in transformational development theory and practice are complex. Translating them from English to other languages should be checked against the results of local participatory exercises (e.g., TST) in the local language.

The exercise can be part of a process for analyzing a situation to determine what interventions will improve the situation. The group, not the facilitator, determines the categories included in the diagram. This is what makes the indicator more meaningful to the group.

Monitoring

When indicators have been identified that make sense in the local context, then TST can be used to obtain results for those indicators. These and other indicators can track perceptions of progress toward goals and objectives.

TST becomes more informative as the information collected with technique is confirmed by other methods of collecting similar information. Triangulation is a critical element of

credible information. “Tri” connotes three, but “multiple-angulation” is a better description of the principle.

- Multiple independent observers
- Multiple methods
- Multiple informants
- Multiple interpreters

The numbers generated by the TST are ordinal measures; if someone insists on statistical analysis, use appropriate statistics. Interpret the numbers carefully.

Example

Forty seeds are used to indicate how much control the community has over four factors (health care, local political decisions, natural or productive resources, and allocation of resources). The index is the proportion of seeds in the control portions of the diagram.

- Suppose the index value for community A is 0.8 and community B is 0.4. What can we meaningfully say about the two communities regarding empowerment? (Members of A perceive themselves as more empowered than members of B perceive themselves.)
- Suppose the empowerment index value before a project is 0.2 and after three years of implementation it is 0.6. Is the community three times more powerful after three years? (Ordinal numbers are greater or lesser than each other, but the amount of difference has to be determined by other means of measurement.)
- Has the community become empowered by the project?

Cause-effect relations generally make sense in a physical universe. Understanding what causes something to happen reduces uncertainty by increasing predictability. In a social universe, cause-effect analysis is useful for discovering complexity. Understanding that many things can cause someone to act in a certain way increases wonder, not predictability. Search this site using the keyword “causality” for more information.

Search this site using the keyword “ten seed” for examples of indicators that are relevant for TE.

References

Cookingham, Frank G. 2013. “Evaluating Transformational Development Outcomes.” World Vision International. Retrieve from <http://evalfrank.com/2013/08/evaluating-transformational-development-outcomes/>

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Jayakaran, Ravi I. 2002. *The Ten Seed Technique*. World Vision International-China. Retrieve from <http://www.csd-i.org/storage/ol-101-course-documents/Ten-Seed%20Technique-Revised.pdf>.

Kumar, Somesh. 2002. *Methods for Community Participation: a Complete Guide for Practitioners*. ITDG Publishing.

Right Brain resources

<http://www.ucmas.ca/our-programs/whole-brain-development/left-brain-vs-right-brain/>

<http://www.acceleratedlearningmethods.com/blog/brain-functions/>