Child Survival
CONNECTIONS
Spring 2002

Successes, Innovations, and Promising Practices from Projects Around the World

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Community members in World Vision's Mah San Area Development Program in China participate in a Ten Seed exercise to discuss subjects such as food security and access to education.

The Ten Seed Technique: *Learning How the Community Sees Itself*

Many child survival projects conduct qualitative research to develop more effective health programming. The methods used range from in-depth individual interviews to focus group discussions and participant observation. Qualitative learning methods can help identify underlying reasons for certain behaviors. They help learners understand how others think and feel. They can also be key in helping generate hypotheses for further research or in explaining the results of findings from quantitative surveys. Qualitative tools provide insight into how various issues are viewed by the community.

Rapid participatory learning tools integrate various qualitative learning methods and techniques. These approaches draw on several disciplines and learning methods. They use a variety of visual exercises (mapping, ranking, and diagramming, etc.) that emphasize local knowledge and analysis. In participatory learning, those involved collect just enough information to use in decisionmaking and planning. Further research (both qualitative and quantitative) can follow these exercises to determine whether the hypotheses formed in the original exercises hold true. More information on rapid participatory learning can be found in the accompanying article by Robb Davis.

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Rapid Participatory Learning Tools

The field of participatory learning has evolved over the past 20 to 25 years in response to development planners' need to place communities at the heart of their development process. Participatory Learning for Action (PLA) is currently the most common term to describe an overall approach to learning from, with, and by local populations in order to plan and act. Readers are also likely to be familiar with the names Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA). RRA was the first term to describe this kind of learning process, and it emphasized the development of tools for information collection or research into the lives of rural populations. Over time, development practitioners began to delineate participatory research—information collected for use by the development practitioner—and participatory learning for action—learning that has the goal of stimulating community-driven action. Even today, it is useful to distinguish RRA-type **activities** (those designed to help development programs set their own priorities) and PLA-or PRA-type **processes** (those designed to enable communities to use information they have generated to plan to act).

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The Ten Seed Technique is a rapid participatory learning tool. It shows promise for adaptation to child survival and other health programs for looking at issues such as equity, gender and power relations, causes of illness in the community, health seeking behavior, child spacing beliefs, or any other area where project managers would like to gain a clearer picture of how the local community sees itself in relation to certain issues. Depending on how it is used, it can either be employed for planning or for action in a community development context. It is useful in gathering qualitative information on various issues and/or ranking those issues. It can be especially useful in gauging the way people see themselves in relation to others. Although this article focuses on food security, equity, and vulnerability, the technique can be used for research on a broad variety of subjects limited only by the imagination.

What the method can do is open a window on the relative importance of various factors for the group participating in the exercise.

This article describes the Ten Seed Technique, including potential uses, advantages, and examples of how it has been used. It also discusses strategies for choosing participants, how the resulting information can be used in project planning, and what makes a good Ten Seed facilitator.

Overview of the Method

Like other qualitative methods, Ten Seed facilitators ask about certain behaviors and the reasons behind them. With this technique, the group of participants first establishes several reasons for a behavior. Participants then use ten seeds to rank how important these various reasons are in relation to each other. For example, typical qualitative research may ask, "What are some reasons women in this village don't use the health facility for childbirth?" If four reasons are given, the Ten Seed facilitator would then ask the group to work together to decide how much weight each of these reasons has in relation to the others. For instance, distance from the health care facility and user fees may both be important. The Ten Seed approach helps determine which (or whether) one is more important and how much more important relative to the other reasons given.

The results of this research will not give figures for an absolute amount. This is not the purpose. What the method can do is open a window on the relative importance of various factors for the group participating in the exercise. Although the measures reached through Ten Seed exercises are not exact, they do provide valuable information for both the outside learner and the community itself.

The technique can also be used to get a clearer picture of the community in terms of income disparity and wealth ranking. Behavior can then be discussed according to different groupings within the community, with the aim of assessing whether project assistance is reaching the most vulnerable.

How It Works

A group of community participants is given ten seeds. These seeds represent the entire village. In response to a question from the facilitator, participants use the seeds to show what portion of a village they feel falls into a given category. For example, if learners are studying the food security status in a village, they would work with a group of participants to determine categories of food security.[1] They might ask participants to distribute their seeds in four community-determined categories:

- Those who have enough and can lend
- Those who face food shortage for one to two months a year
- Those who face food shortages for three to five months a year
- Those who face food shortages from six to 12 months a year.

[1] It is important to note that the Ten Seed Technique is not a stand-alone activitiy. Both pre- and post-exercise activities strengthen involvement, interpretation, and the use of the findings. In this example, categories were determined in a previous activity.

The way the seeds are allocated will tell the learner how the community views itself in terms of food security.

The ten seeds provide a device that can be touched and felt and moved around. This helps move the focus from the outside learner to the visual and manual activity. The switch in focus can frequently free people to speak, debate, discuss, and disagree when they would not otherwise do so.

The final seed placement allows for comparison between groups. It gives a quick, visual idea of the perceptions people have about their community. In their view, what portion of the community is just above the poverty line? How does this compare with the portion of people in the other categories? A mapping exercise can also be paired with the Ten Seed tool to provide further detail on which households fall into which categories (please see the example at the end of the article for more information on how the mapping exercise can be used). Although these measures are not exact (one cannot say that 20 percent of the population is above the prosperity line without doing a quantitative survey) it does show the relative distribution of the problem of food security as understood by the community participants.

Seeds vs. Process

The discussions that take place during the activity are just as revealing as the final position of the seeds—if not more so. What criteria were brought up and discussed? Were there any disagreements? Did everyone participate? What were some of the issues that should be explored further? This information needs to be recorded.

Advantages of the Ten Seed Technique

One of the advantages of the Ten Seed Technique is that the small number of seeds forces participants to make a choice in allocating seeds to categories. If the number of seeds allocated to one of the categories changes, the amount of seeds in other categories automatically changes as well. This can prompt a lively and sometimes heated conversation during the exercise. As mentioned previously, this discussion is a very important aspect of Ten Seed tool.

Other advantages include the following:

- It is a visual method. Participants do not need to know how to read to take part.
- The seeds are easy to move, move again, and have a discussion around.
- Seeds (or in some cases, stones) can be found almost everywhere and are non-threatening for even the marginalized poor to use.
- The visuals created with the seeds are easy to read and easy for the participants to explain.

Brief History of the Technique

Although many people use similar exercises, the Ten Seed tool as it is presented here was developed by Dr. Ravi Jayakaran, previously the Food Security and Disaster Mitigation Advisor for the Asia Pacific Region of World Vision International and currently the Ministry Facilitator for World Vision International in China. He began using the technique out of the need to understand the relative importance of one factor in comparison with another. His needs were demanding: something simple, versatile, and dynamic, yet sensible enough to be convincing for the skeptic.

The ten seeds provide a device that can be touched and felt and moved around. This helps move the focus from the outside learner to the visual and manual activity.

He experimented with a similar method using a large number of uncounted seeds and slowly began reducing the number—first to 100, then to 50, 20, and finally 10. Jayakaran views the number 10 as easy to see, handle, and count. The result was the Ten Seed Technique. He has been using the method since 1995 but has refined it more since 1997.

Table I: Family Food Security Status as an Indicator of Vulnerabiliy in Rural Cambodia

Number of Seeds	Vulnerability Status	Description
	Prosperity Line	Those who have enough and can lend
	Poverty Line (just above)	Those who face food shortage for one or two months a year
	Poverty Line (just below)	Those who face food shortage for three to five months a year
	Below Charity Line	Those who face food shortage throughout the year

How the Process Works

Each Ten Seed exercise takes approximately half an hour to 45 minutes to conduct. Ravi Jayakaran explains how the seeds are laid out by the group:

> "After an explanation of the purpose, the group is given the seeds and asked to group them into the broad categories. [After they have done this,] they are then asked to describe the categories or draw pictures to represent them. Sometimes the broad categories have subcategories that are significant, so we ask them to subdivide it using an arrow to show that it is related to the broad category. We give them another 10 seeds to represent this. For example, we give them 10 seeds in the beginning saying they represent the community of a particular village. We then ask them to group this in terms of [green vegetable] consumption. They may come up with four groups using their own categorization: [a) eat green vegetables every day, b) frequently eat green vegetables, c) occasionally eat green vegetables, and d) those who don't eat green vegetables at all]. The distribution of the population of the village into these categories can further be segregated using an arrow pointing out of each broad category and asking for further division into male/female or age groups. We then ask them to describe what they mean by each category—such as frequently/occasionally. They then draw or symbolize these."

Jayakaran describes how one session of the study on food security unfolded:

> "We first discussed several everyday topics with a mixed group of men and women from one village. This enabled us to make them feel at ease. These topics included things that they are familiar with, such as how the crops are doing, how their children are, how their animals are, or how things are in general in their village. We then told them we would like to discuss a little about food security and related issues.
>
> I asked them to consider that the 10 seeds represent the families in the village. When this was understood and established, I asked them to show me what portion of the seeds would represent those with adequate food security for the whole year and what part did not have adequate food security.
>
> Then I asked them to show me the different levels of food insecurity among the food insecure portion. They showed these families to be at three levels: those with shortage for up to two months a year, those with shortage for up to five months a year, and those with a shortage of six to 12 months a year.

These categories were recorded as—

1. Prosperity line (*Kron Bao*, "those with sufficient")
2. Just above poverty line (*Mathium*, "those in the middle who are OK")
3. Just below poverty line (*Kraau*, "the poor")
4. Below the charity line (*Tual*, "those up against the wall")."

The resulting Ten Seed chart is shown in Table I on previous page.

Digging a Little Deeper

The Ten Seed Technique was instrumental in discovering how the villagers saw themselves in terms of food security. The technique can be even more useful in going deeper into the causes of food insecurity.

For example, using the frame they had just developed with the community, Jayakaran and his team used the Ten Seed Technique to look at each of the dimensions of food security: availability, access, asset creation, and usage. How did those in each of the categories listed above relate to the dimensions of food security? Were the villagers in the *Kraau* category food insecure due primarily to issues of availability? Access? Other? They found that some dimensions were critical to the food security of families in the village, but others were not. For example, they observed that *availability* was not a significant problem in Cambodia—food can be purchased by anyone with the money to do so. But they did find significant differences between the four categories in terms of access. Not everyone could always afford to buy the food.

The learners also used the Ten Seed Technique to find out how food was distributed within a family. Facilitators asked the group, "If the 10 seeds represent the total amount of food available to the family, how is the food distributed among family members?" Each of the seeds had to be placed into one of four categories: men, women, boys, or girls. (See Table II)

After they did this, participants were asked to show how food was distributed within the families of different economic status. Usage was uniform across the four levels, following the same levels of inequality—three seeds for the man, three for the boy, two for the woman, and two for the girl. (See Table III) The fact that food distribution was not influenced by food security status showed that it was more likely a reflection of the value placed on males in relation to females.

Table II: Food Distribution Within the Household

Men	Women
● ● ●	● ●
Boys	**Girls**
● ● ●	● ●

Who Participates?

Jayakaran and his staff use what he calls "opportunity samples" in selecting participants for a Ten Seed session. When preparing for a Ten Seed discussion, the staff moves through the village identifying people of different ages and both sexes who know their village well. Those who will participate in the discussion are the community people about whom the researchers are trying to learn. According to Jayakaran, "The ideal group size is eight to ten, but even if it gets bigger than that, there is no problem since the ones who actively take part are usually only about seven to nine."

The group as a whole assigns seeds to different categories. It is a consensus decision, and the dynamics of this interaction are watched closely during the discussions. There are sometimes very different opinions about the number of seeds to be assigned to different segments.

Facilitators watch the reactions of the participants to determine whether there may be some divergent views, and they ask those participants who may have a different opinion to share their reasoning. After some discussions, the group comes up with a consensus.

If the exercises using the Ten Seed Technique are done in smaller groups, the groups are asked to present their findings to the larger group of villagers. If the conclusions of the groups differ, the larger group will be asked to come up with a final consensus in order to generate further discussion.

Trouble Spots and How to Overcome Them

Any time an opportunity sample is used, leaders need to be aware of bias issues. This can involve many factors, such as gender, class, ethnicity, religion, or age. One way to help control for bias is to hold several group discussions, making sure that more than one point of view is represented. Some groups may be composed of only women or only men. Other groups can be mixed, although issues related to power dynamics may be more noticeable in mixed groups. The results of these groups are then compared (triangulated) to see how the conclusions reached do or do not differ. Facilitators need to be aware that even within groups, some voices may be louder than others; a good facilitator will watch for this and take action so that the less forceful personalities and voices are not drowned out.

Authoritative respondents

Some participants can at times dominate the discussion for various reasons. These participants are filtered out of the group as soon as possible so that they do not have the opportunity to monopolize the conversation. Partici-

Table III: Household Food Distribution by Food Security Status

Local Name of Group	Women	Men	Girl Child	Boy Child
Kron Bao (Prosperity line)	● ●	● ● ●	● ●	● ● ●
Mathium (Just above poverty line)	● ●	● ● ●	● ●	● ● ●
Kraau (Just below poverty line)	● ●	● ● ●	● ●	● ● ●
Tual (Below the poverty line)	● ●	● ● ●	● ●	● ● ●

Photograph courtesy of World Vision

The Ten Seen Technique and other participatory learning tools are good for opening community discussion on a wide variety of issues. This discussion is a vital part of the exercise and can be a source of rich descriptions and insights from community members themselves.

pants who may be prime candidates for being filtered out include village leaders, moneylenders, landlords, or others with authority. In some cases where authority figures are present, other participants will not disagree with them during the discussion, even if they have a different opinion.

"This is really interesting," says Jayakaran. "A group becomes monosyllabic in its answers, and continued questions produce responses like, 'please ask him' or 'he will tell you.' One then knows that the particular individual is having a negative impact on the group. At this point, a predetermined filter (an important older-looking outsider who is helping with the facilitation) gets up and slowly and diplomatically calls the dominant person aside, complimenting him on the knowledge he obviously has, and asks him to 'come apart' and share some of his 'immense' knowledge." The person called out is then given a type of key informant interview on the issue being discussed by the rest of the group. The interview is given at the same time as the larger group is continuing its discussion. The information from the key informant is also useful and can be triangulated against the information from the group as a whole.

Filtering must be handled with great care. Authority figures have as much—maybe more—desire to share their opinion as others in the community do. If they are to be removed from the discussion before it starts, someone who looks older and important must approach them. "If the person doing the filtering looks important enough," explains Jayakaran, "he or she will make the dominant person feel good about 'being recognized' as a 'quality information' giver."

Male/female and age dynamic

The Ten Seed Technique can be used to shed some light on how decisions are made in the household. How much weight does the hus-

band's opinion carry in comparison with the wife's opinion? This can be approached in several ways. The questions can be asked of the husband and the wife separately or with both of them together.

According to Jayakaran, there are some interesting responses when both husband and wife are interviewed together. In one case, the seed distribution for decisionmaking was seven for the husband and three for the wife. "We asked the woman what would be ideal," he explains. "She said five for each, but in our case, seven and three work well." Facilitators can ask further questions based on "what if" scenarios. "Then we asked her what would be the situation of a family where there were three seeds for the husband and seven for the wife in decisionmaking around the house," he continues. "Her response was, 'then he would be a man who is either a drunkard or a good for nothing man who depends on his wife for everything!'"

The final allocation of seeds can be important and is recorded. Much of the qualitative information the documentor notes, however, comes from the group discussions around how the seeds should be allocated.

Asking questions separately can be for the purpose of getting different perspectives. For example, in a situation in which the husband has almost all of the decisionmaking power, the wife may not dispute the man's placement of seeds, even if what he has chosen does not truly reflect their relationship. If he chooses to place seven seeds on his side and three on hers, she may not want to correct him by saying that she thinks a truer picture would be to have nine seeds on his side and one on hers.

Asking the husband and wife separately can also highlight what really happens in situations of inequality. For example, the husband may perceive that he is the major decisionmaker. In reality, however, the wife may actually be influencing things behind the scenes without her husband knowing it.

Who Facilitates Groups and Records Findings?

Like focus groups, the Ten Seed Technique requires a facilitator. This person is responsible for asking the questions of the group, explaining how the process will work, and making sure that everyone has the opportunity to participate in the discussion.

Sometimes up to three people can be involved, depending on whether translation is needed. In addition to the facilitator/interviewer, one person acts as a documentor. The final allocation of seeds can be important and is recorded. Much of the qualitative information the documentor notes, however, comes from the group discussions around *how* the seeds should be allocated. It can be helpful to have more than one person listening and taking notes on the discussion, especially in instances where not everyone agrees. Identifying and following up on different points of view is very important.

Asking Clear Questions

One of the advantages of the Ten Seed Technique is that it is visual—participants do not have to know statistics or understand pie charts to place the seeds were they think they belong.

As the questions and answers become more complex, however, facilitators need to be sure to have clear and easy ways of explaining what they want the participants to respond to. The example in Table IV shows responses to a question on how people feel toward adults (males and females) and children living with HIV/AIDS. The categories are positive attitude, neutral attitude, and negative attitude.

Without a clear explanation of what the question is and what the options are, this type of graph has the potential to be very confusing. With a clear explanation though, it should not be a problem. "Strangely enough, I have found it easier to explain the expectations of information gathering when using the method with the nonliterate communities," says Jayakaran. The key is to make sure everyone understands the question and the categories. For instance, what do we mean by "negative attitude" and "positive attitude?" A brief pre-exercise can help

Table IV: Attitude Toward People With HIV/AIDS

Male Living With HIV/AIDS	●●●	Positive attitude
	●●	Neutral attitude
	●●●●●	Negative attitude
Female Living With HIV/AIDS	●●●●●	Positive attitude
	●●●	Neutral attitude
	●●	Negative attitude
Children Living With HIV/AIDS	●●●●●●●●	Positive attitude
	●●	Neutral attitude
		Negative attitude

define these concepts. The exercise can demonstrate different types of reactions to a person with HIV/AIDS. Different reactions can be represented using drawings: a smiling face to represent the supportive or positive attitude, an angry face to show a negative attitude, and an expressionless face to show a neutral attitude.

Setting the Agenda for Ten Seed Sessions

Unlike a structured focus group discussion, the facilitator of a Ten Seed session does not necessarily have all of her questions prepared before the group meets.

"I have found that the best way is to have some foundational information collected and then start opening it up further and further," says Jayakaran. "We (the facilitator/interviewer) only prepare a rough, semistructured, loose frame in our mind. That is the only way to capture and explore dimensions and perspectives outside of our own experience and understanding. If we set ourselves a rigid frame—even predetermining the questions we seek to ask—then we will end up reestablishing our own prior assumptions and perspectives. Nevertheless we must know what we finally want to find out."

Facilitators ask questions related to the subject in different ways so participants understand. For example, "What do people do when they are sick?" and "Can you identify the things they do?" The categories identified by the participants then become the framework for further questions.

"The discussion here remains predominantly semistructured, in that we stay within the frame of the subject. As much as possible, however, the community determines the categories, the alternatives, and the components of the information. This is because we want to understand their perspective."

What Makes a Good Ten Seed Facilitator?

How effectively the information is generated depends on how well the learner of facilitator uses the Ten Seed Technique.

"The technique is very simple to learn and can be taught quite easily through demonstration and sharing in half a day through simple data collection," says Jayakaran. "However, the important prerequisite is to have some preparation for the group on attitude and behavior change. This is almost necessary because dominating behavior [by the facilitator or learner] and asking leading questions can have very negative effects."

As Jayakaran explains, the results of the research will always be better "if the learner carries out the technique as a learning tool, seeking to genuinely learn from the group about their perspective rather than seeking a confirmation from them about his or her prior assumption." This is what he calls the learner's "listening attitude."

If a learner is conducting the sessions because he is seeking confirmation from the group about his own assumptions (a nonlistening attitude), the results will not truly be reflective of the community's opinions. Leading questions such as "Do you need a health center?" or "Do you want papaya seedlings?" may provide answers the learner would like to hear, but they

Using the Ten Seed Technique in Child Survival

Many of the examples in the Ten Seed Technique article relate to issues of food security, but the method is easily transferable to child survival. For example, a project manager curious to know what a range of community members thought about the topic of childhood illnesses could explore the topic using the Ten Seed Technique.

Facilitators could ask questions such as:

- Which illnesses are the most frequent in this community?
- What are the most feared childhood illnesses?

Once these diseases have been identified, the group could then address questions such as:

- What do families do when a child has [name one of the illnesses listed previously]?

If "go to healthcare provider" is listed in response to the previous question, a follow-up question could be:

- Where do families go for treatment?

If "go to healthcare provider" is *not* listed or has been identified as an infrequent response to illness, the facilitator might follow up with the question:

- What are some reasons that families do not take their children to health care providers?

The Ten Seed Technique is more powerful and the answers to the questions above will be more useful if they are discussed in a context of community segmentation. Is the community naturally grouped into social or economic categories? Are some families more privileged than others? What are these groups? Would members of different groups answer the questions differently?

If these community divisions are determined first, the information gleaned from the Ten Seed exercises may be more valuable. As discussed in the section, "How the Information Can Be Used in a Project," knowing not only the proportion of people accessing care, but also *which* segments of the population access which care can be the most valuable information. For example, some illnesses may be more prevalent in some segments of the community and more rare in others. Although it is interesting to find out that a lot of people go to healthcare providers and others do not, it is much more useful to know *which* families go to health care providers, which do not, and what determines this.

How else can this technique be used to highlight community segmentation issues within the context of a child survival project?

Table V. Family Food Security Status and Source of Health Care

	Prosperity Line	Just above poverty line	Just below poverty line	Below the poverty line
MOH	●●●●●	●●●	●	●
VHV	●	●●	●●●	●●●●
Kru-Khmer	●	●●	●●●	●●●●

do not provide a deeper understanding of the dynamics in the community.

The facilitator's listening attitude comes through in the tone of voice, the way the question is asked, and body language. According to Jayakaran, this can be seen not only in the type of questions asked but also in the posture, gestures, and the way he or she sits. Someone with a nonlistening attitude, he explains, "will be stiff, exhibiting 'body lock' gestures, and they would be interrupting the community when they respond or prompting and suggesting the type of answers they are giving. Their eyes may not be attentive, but looking away impatiently."

A facilitator should be able to tell from the responses of the community whether or not he or she is showing a listening attitude. When the facilitator has a listening attitude "the community or the interviewee gets more and more animated and begins to talk more than the interviewer." Those being interviewed may also delve into other related issues without being prompted.

When a facilitator notices the community pointing to things that are significant, then he or she can ask further questions to help draw out those issues. "This is not hard really," says Jayakaran, "because the group would be really animated by now and really into the discussion. In fact, if the facilitation is done well, one could just step aside and watch the group discuss by themselves."

How the Information Can Be Used in a Project

In one of the examples above, Ravi Jayakaran used the Ten Seed Technique to assess the food security status of a village in rural Cambodia. After identifying the food security status, Jayakaran and his team continued with their investigation to find out perceptions of who accesses the various health care services available.

In the diagram above (Table V), the top row shows the four economic categories of people in the village. The first column shows three types of health providers in the community:

- The MOH (Health centers run by the Ministry of Health)
- The VHV (Village Health Volunteer)
- The Kru-Khmer (local traditional healer).

Of the people who use the health centers run by the Ministry of Health, what portion of these people are above the prosperity line? What portion are just below the poverty line? The seed placement shows that according to the group's perception, the Ministry of Health centers are attended primarily by families above the prosperity line. Those visiting the Kru-Khmer are primarily families below the charity line. The resulting distribution provides useful insight into who uses which services and provides a basis for followup questions and analysis. One way to follow up is to ask the same type of question a different way, such as

"Where do the families below the poverty line seek health care?" and similarly, "Where do the families at or above the prosperity line seek health care?" The responses to these questions can be used to make comparisons across food security status.

Another follow-up question might be, "What are the reasons that the Kru-Khmer receives more visits from people below the poverty line than above it? Why does the MOH receive more visits from people at or above the prosperity line?" Through asking questions such as these Jayakaran and his team discovered that the Kru-Khmer is not necessarily the cheapest provider, but the costs are sometimes recovered in kind and in installments. In dire emergencies, fees can even be paid later. It is a service that is available directly in the home, so it is often preferred to the health center that may require ready cash and expensive hired transportation.

This type of information—the rich description of the situation as described by the participants—is what sets qualitative learning apart from quantitative. The seed placement is important to further refine questions, hypotheses, and learning. In this case the Ten Seed exercise was used as a springboard to other conversations and further inquiry that resulted in information that could not be gleaned from a quantitative survey or the placement of seeds in an exercise.

"I have been fascinated by some of these findings, and I now want to know more about some of these aspects, like what is the most vulnerable segment's preference in terms of efficacious services," says Jayakaran. "I am increasingly noticing that the VHV is the most preferred service provider. In such a case then, it is worth expanding that service more and investing more in it so that the boundaries of its capabilities are further expanded."

Another example comes from World Vision in Sri Lanka. The Ten Seed Technique was used there to identify the most vulnerable in the community in order to make sure they were benefiting from the Area Development Project. Participants in the exercise were asked to separate the ten seeds into two groups: those who have to struggle to make ends meet and those who do not have to struggle. The seeds representing those who face a struggle were further separated according to the community's perception. In this case, there were four categories:

- *Posatha:* those who had enough
- *Madhyasta:* those who were in between—who had struggles but could manage
- *Duppath:* those for whom life was a struggle because of shortages
- *Antha Duppath:* those for whom life was an extreme struggle.

The community then determined specific criteria for each group. For example, those in the Posatha group are those who have a permanent house, who cultivate their own land, who have one or two family members permanently employed, and who have 15 to 20 head of livestock. In contrast, those in the *Madhyasta* group (those just above the poverty line) were classified as having a half-built, semipermanent house. They have only two to three head of livestock and typically care for the livestock of the Posatha group. They cultivate land, but not necessarily their own. They frequently have a petty trade in the village.[2]

Results from this qualitative research tool can be used to develop and refine quantitative tools. For example, the community-determined criteria discussed above were put on a checklist, beginning with the criteria for the first group and continuing through the criteria for the last group. The checklist was then used in a community census. Forms listed the criteria on the top with the names of the heads of the household on the left. Those characteristics for the poorest group were shaded darkest (see Illustration I).

Teams of two to three people conducted a census of every household in the village. At every house they wrote the name of the head of household on the left and checked off each criterion that household met. This process required approximately five to eight minutes

[2] This part of the exercise is similar to other wealth-ranking exercises and tools. Two good references on wealth ranking are Barbara Grandin, *Wealth Ranking in Smallholder Communities: A Field Manual,* IT Publications, U.K., 1998 and Anton Simanowitz, Small Enterprise Foundation, *Pushing the Limits of Wealth Ranking,* PLA Notes #34, 1999.

Illustration I: Food Security Status of Individual Households: (Sample Format)

Date: Name of data collector: _____

1	Name	Permanent House	Livestock (15-20)	1-2 Permanently Employed	Low Indebtedness	Cultivate Own Land	Half-Built, Semipermanent Homes	Livestock (Only 2-3)	Look After Livestock of Group 1	Petty Trade In Village	Experiment With Other Artisan Trades/Fishery	Cultivate Land	Impermanent Houses	More Indebtedness	Land Mortaged When Not Cultivated for More Than 2 Years	Sell Labor in the Village	Look After Livestock of Groups 1 & 2	Don't Have Own Houses	Stay in Rented Places	Land Mortaged	Migrate Out of Village to Sell Labor Outside
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

per household. After the census was completed, program planners could look at the census and immediately identify the most vulnerable households by noting which families had the most checkmarks in the darkest areas.

Jayakaran notes that this type of census can be dated and will form the baseline for the food security or vulnerability status of the households in the village. The number of families falling into the different categories can be recorded and used for preparing indicators. "Since the names of the families are available," Jayakaran continues, "the progress of these can be tracked for evaluation at periodic intervals, and socioeconomic changes over a period of time can be tracked to see if there is an upward or downward movement of households [across the levels of vulnerability.]"

As Jayakaran points out, "This type of rapid appraisal using a combination of the Ten Seed Technique and the checklist generated by it can enable the project staff to determine if they are targeting the most vulnerable. [It can also show] if the programmes they are implement-

For Discussion

The Ten Seed Technique can be used to explore perceptions on many topics, ranging from equity in distribution and access to motivation for taking certain actions. If the exercise is to be a productive one, it is important to think through several issues in the planning stages. Is the Ten Seed Technique the best approach? Should it be modified in any way?

The questions below are intended to spark discussion in order to better plan and use the Ten Seed Technique (or other learning methods) most productively. Responses will vary depending on *how* and for *what* the exercises are used. Consider the following questions in light of an area (or several areas) you would like to learn more about. How do the responses change depending on the subject matter?

- What information are you wanting to have in the end? Is it more quantitative or qualitative? Who is the information for? Considering your answer, is the Ten Seed Technique the best tool to use?
- What advantages and disadvantages does the Ten Seed Technique have for exploring this subject?
- The methodology featured in this issue of CS Connections uses only 10 seeds (or stones) for the group to divide into categories. For the subject you are exploring, would you want to limit the number of seeds to ten? What are the relative advantages and disadvantages of this?
- Sometimes Ten Seed groups are made up of people who fall into a similar category, such as mothers, fathers, or community elders. At other times these groups are mixed, which can mask some power dynamics and differences of opinion. For your situation, what might be some advantages and disadvantages of using either mixed or "single audience" groups?
- How would you segment your audience for the subject you are exploring? What types of people would you consider filtering out? What are some groups of people you especially want to hear from?
- What kinds of biases might emerge in carrying out the Ten Seed exercise for the subject you have chosen? How might these biases be addressed and/or accounted for in interpreting results?
- How can the Ten Seed Technique help explain the results of a quantitative survey? How might the results of the Ten Seed exercise be used to inform the design of a quantitative survey? For the situation you are considering, what other research methods could be paired with a Ten Seed exercise to strengthen your understanding of the situation? What else can communities do to follow up on some of the issues uncovered in these exercises?
- After holding several Ten Seed exercises, how should the information best be used? Who decides this? How could the community itself use this information?

ing to serve them are in fact impacting them in a proper way. If, on evaluation, the findings are that the program is not actually benefiting the most vulnerable, then it is an opportunity to make corrections and revisions to more effectively focus on them." ●

By Rikki Welch, CSTS Information Dissemination Specialist, with Ravi Jayakaran, Ministry Facilitator for World Vision International in China

For More Information

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Rapid Participatory Learning Tools

continued from page 1

No judgment is made as to which approach is "better" since both have value. However, it is important to be clear about the intent of the process—whether it is to learn so as to better design programs, or to engage in a process that has the goal of empowering communities to take control of their own development activities.

Background and Development-from RRA to PLA

(see Chambers 1994a, b, c for more details)

The concept of rapid appraisal was used early in the development of the approach not only to distinguish it from more lengthy ethnographic studies, but also to distinguish it from traditional sample survey methods whose results and analysis often took many months to accomplish. From the outset, rapid appraisal aimed to produce insights and hypotheses rather than final truths or fixed recommendations.

RRA (and later PLA) evolved as both a philosophy of research and a tool kit of research methods. It developed with contributions from a variety of disciplines and learning systems. The following contributed to the development of RRA and, by extension, PLA:

1. Agro-ecosystem analysis contributed several methods that make up the basic tool kit of PLA such as transects, informal mapping, diagramming, various ranking activities, and decision trees.

2. Applied social anthropology contributed both methodologically and conceptually via such methods as participant observation, semistructured interviewing, the review of secondary sources of information, and various structured data collection methods. In addition, it contributed conceptually by emphasizing the importance of distinguishing indigenous knowledge from outsider knowledge, the value of field residence, the importance of the attitudes and behavior of the researchers, and the validity of results obtained via semistructured interviewing.

3. Field research on farming systems also contributed conceptually by emphasizing how farmers (and by extension rural people) are innovative, experimental, and thus capable of evaluating and planning how to produce in an uncertain environment.

4. A fourth important source in the development of RRA/PLA was Activist Participatory Research (APR) and Participatory Action Research (PAR), which emphasized the role of outsiders as catalysts and facilitators by reminding the outsiders that poor people are creative and capable of planning and undertaking their own development.

From the outset, rapid appraisal aimed to produce insights and hypotheses rather than final truths or fixed recommendations.

In addition to these positive contributions, the development of RRA/PLA was linked to a growing disillusionment with traditional questionnaire surveys among development fieldworkers and to the rushed, uncritical evaluation of community needs by development workers who lacked the inclination to stay in a community to identify community priorities. Thus, from the outset, RRA tried to balance the dual concerns of gathering timely information without rushing so much that key elements of community life were missed.

Although RRA evolved largely as a research tool, PLA went beyond research by emphasizing the importance of communities controlling the results of their learning to plan to act. This change—from learning by outsiders to the outsider functioning in the role of catalyst or problem poser to enable community learning and action—represents a fundamental shift in roles of the development worker and development agency. Thus, although many of the tools and principles of RRA are shared by PLA, the ques-

Photograph courtesy of World Vision

In this exercise community members indicate their view of who or what controls various areas of their lives. The circle is divided into slices which represent occupation and/or problem areas such as agriculture, health, clean water, and access to food. Each of the concentric circles represents an area of control for that issue, with the innermost circle indicating personal or community responsibility. The middle circle indicates control by outsiders, and the outermost circle represents control by other powers such as gods, fate, or the ancestors.

tion of *who collects which information for whom* distinguishes them.

Participatory learning tools provide a nice complement to more quantitative survey tools. They can be used to provide important information on how to design survey questions accounting for local terms and concepts. In addition, they can be used to more fully explain or interpret the results of standardized surveys. Because of their focus on relative rather than absolute levels/frequencies they do not replace quantitative surveys, however. To the extent that they are used to enable communities to begin to plan their own actions, they can be used independently of quantitative surveys because the intent is to stimulate discussion of community issues and problem solving by community members.

Principles of PLA[1]

Key principles that guide the use of PLA include the following:

1. The priority given to **visual learning**—although the semistructured interview is at the heart of all participatory learning methods, by emphasizing visual products (drawn on the ground using local products), outsiders begin to yield control of the process to community members.
2. The importance of a **multidisciplinary team**—such teams enrich the formulation of learning questions and the analysis of results because different approaches (different "conceptual filters") to analyzing a problem are used as the learning proceeds.
3. The **continual evaluation of individual and team behavior**—this is key to building rapport with villagers by listening, not interrupting; sitting with people in their homes; meeting them where they work; and always leaving time for them to ask questions at any time in any activity or interview.
4. The **sequencing of learning activities** to build knowledge—this is specifically sequencing activities to check information previously gained and building upon it. This point also implies that RRA and PLA do not rely on a single method or approach. Both rely on a toolkit that enables the learners to look at issues from a variety of perspectives.
5. The **constant evaluation of biases**—making biases explicit is essential to the team dynamic in PLA. This includes biases of both the team and the community members.
6. The practical implementation of **triangulation**—This refers to the process of checking information gained (preferably in at least two other ways) by using a variety of tools and talking to a variety of people. Typically, triangulation is considered at the three levels shown in Illustration II:

[1] These principles were first articulated for RRA practitioners but remain critical for PLA practitioners as well.

Illustration II: Triangulation involves checking information gained (preferably in at least two other ways) by using a variety of tools and talking to a variety of people. Typically, triangulation is considered at the three levels shown.

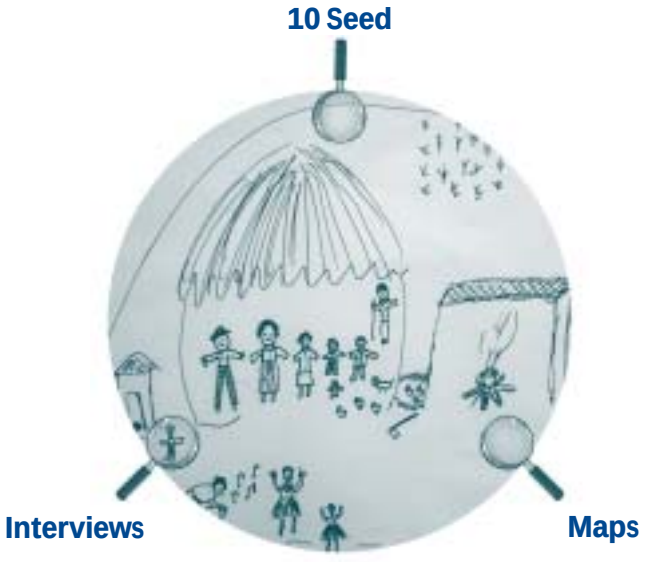
Example of Triangulation of Tools

Three levels of triangulation:

Team
- Men and Women
- Health, Education, Agriculture
- Insider Outsider
- Other

Tools
- Maps, Matrix, Transect, 10 Seed
- Diagrams
- Calendars
- Other

Units of Observation
- Young and Old
- Varied Professions
- Men/Women
- Other



Drawing courtesy of "Learn to 'BEHAVE'" Workshop participants

a. The first has already been discussed and concerns the multidisciplinary team. In using different backgrounds, learners are able to "check" information from a variety of perspectives.

b. A second level of triangulation concerns the tools themselves. By using a variety of tools, including rankings, diagrams, walking interviews, free listing and individual semistructured interviews, learners are able to evaluate many pieces of information in a variety of contexts.

c. The final and perhaps most important and challenging level of triangulation concerns what might be called the units of observation. "Who are we really talking to?" becomes a standard question in every learning activity.

7. The twin principles of **optimal ignorance and acceptable imprecision**—these rather curious terms indicate that learners understand the limits of what they can learn and that *relative* importance or level is the goal rather than the estimation of actual levels or percentages. In RRA/PLA, the goal is to learn which things are more important than others, which occur with greater frequency, which have greater influence, etc., rather than to understand the exact levels or frequency. As such, numbers are less important than the relative ranking of events, activities, or characteristics. For example, RRA/PLA would seek to understand the relative ranking of poverty in a community and what poverty means rather than the income level of each family.

The Tools of RRA/PLA

As noted, the tools of RRA and PLA are very similar and fall into several large categories. The beauty of the tools is that there is always room for innovation and creation of new ways of learning. Thus, the tool kit is always expanding and growing. The following categories rep-

resent one way of thinking about the different kinds of tools that have evolved within RRA/PLA. The list of specific tools is merely a sample of the variety of tools available.

1. Spatial relationship tools—maps and transects enable learners to understand geography and spatial aspects of a community. Maps are typically drawn on the ground using local materials and vary in their level of detail. Transects are a kind of walking interview in which a walk through the community enables learners to pose questions based on the surroundings.

2. Social relationship tools—Venn diagrams (also known in some places as Chapati diagrams) and other forms of social mapping enable learners to understand important community groups and relationships within the community, and between the community and the outside world.

3. Temporal Relationship Tools—seasonal calendars, historical timelines, and other historical ranking activities are designed to enable learners to move beyond the bias of being with a community during the constrained timeframe of a typical RRA/PLA learning event. These tools allow the learner to evaluate change over time—either over a typical year or over the history of community.

4. Ranking tools—this broad category of tools includes various kinds of listing and matrix activities (such as the Ten Seed Techinque) designed to compare, rank, and classify a wide variety of community factors. Historical matrices can allow learners to evaluate how livelihood activities have changed over time, and wealth or food security ranking activities can be used to classify (in a relative sense) households in a community. Other ranking activities might concern utilization of health services, illness perception, food production sources, etc.

5. Other tools—many other tools can be developed according to the learning needs. For example, problem (or solution) trees can be used to identify perspectives on causality, and pile sorting can be used to understand classifications.

Referring to the discussion on triangulation reminds us that each tool enables the learner to understand local realities from a variety of perspectives. Used together, they provide a more complete picture of life in a community.

Reliability and Validity of RRA/PLA

Although academic criticism of PLA began more recently, a number of practitioners have evaluated issues of validity over the past ten years or so (Gill, 1991; Scoones, 1995; Pottier, 1992; Franzel and Crawford, 1987; Lindberg et al., 1995; Chambers, 1994b; Rhoades, 1992; Inglis, 1991; and Mosse, 1995). Some, such as Chambers, Gill, and Rhoades, have looked at specific cases in which RRA data is compared with data generated by more traditional survey approaches. These examples typically come from agricultural and forestry research. They show how data generated using RRA compare well with data generated using standard surveys and even illuminate issues that these surveys cannot explain. In one study in which invalid results are apparent (Lindberg), the authors charge that the research team missed a key bias in that the poorest households were left out of the evaluation, thereby invalidating the results. The general conclusion from these studies is that not all that is called RRA/PLA is of the quality necessary to yield valid results. However, when used carefully and with ample self-assessment, RRA/PLA results can yield valid results.

Data generated using RRA compare well with data generated using standard surveys and even illuminate issues that these surveys cannot explain.

Several key points have emerged in connection with the question of validity. First of all, the learning team must avoid hurrying. Hurrying can occur during a specific activity—pushing people to “get to the point”—or when no attempt is made to probe information. Self-crit-

icism, a second major point, helps the team to identify not only whether and how it is hurrying but also to evaluate its own behavior and interviewing technique. Finally, the PLA team must continually seek to identify bias. The validity of the information gained depends on this. Regular team meetings provide a forum for evaluating bias. When PLA is hurried, done without sufficient self-criticism and without careful attention to the identification of biases, it is likely to yield poor results.

Key References and Resources

In addition to the key references cited below the most useful practical works on RRA/PLA are the following, which are available on the World Wide Web:

Schoonmaker-Freudenberger, Karen. 1999. Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA): A manual for CRS field-workers and partners. Baltimore, MD, USA: Catholic Relief Services.

http://www.catholicrelief.org/what/overseas/rra_manual.cfm

This is a how-to manual that includes everything from a more detailed description of the principles of RRA/PRA to information on actually carrying out an RRA exercise in the field. It also includes useful case studies and rich descriptions of tools actually used in the field and the results.

Center for Refugee and Disaster Studies of the Johns Hopkins School of Public Health. 1999. *Training in qualitative research methods for PVOs and NGOs (and counterparts): A trainer's guide and resources for participants* (2 volumes). Baltimore, MD, Johns Hopkins University.

http://www.jhsph.edu/refugee/tqr_b_desc.html

Although developed in the context of emergency health programs, this practical guide and set of participant handouts is useful for training in qualitative methods including RRA. The manuals include much useful information on the distinction between quantitative and qualitative learning methods and semistructured interviewing (which is central to all RRA/PLA tools).

Finally, the three articles listed below by Robert Chambers provide the most complete historical perspective on the development of RRA/PLA and the major challenges that exist in using the approaches—even seven years after these articles were published. These articles are available on the CSTS web site at http://www.childsurvival.com/connections/start.cfm

Chambers, Robert. 1994a. "The origins and practice of Participatory Rural Appraisal." *World Development, 22(7),* 953-969.

Chambers, Robert. 1994b. "Participatory Rural Appraisal (PRA): Analysis of experience." *World Development, 22(9),* 1253-1268.

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Inglis, Andrew Stewart. 1991. "Harvesting local forestry knowledge: A comparison of RRA and conventional surveys." *RRA Notes. No. 12,* 32-40.

Lindberg, C., Loiske, V.M., Ostberg, W., and Mung'ong'o, C. 1995. "Handle with care! Rapid studies and the poor." *PLA Notes.* No. 22, February, London: IIED.

Mosse, David. 1995. "Authority gender, and knowledge: Theoretical reflections on Participatory Rural Appraisal." *Economic and Political Weekly.* March 18, 569-578.

Pottier, Johan. 1992. "Agrarian change at the household level: A note on investigative styles in research on Mambwe agriculture (Northern Zambia)." In Preben Kaarsholm (ed.), *Institutions, Culture, and Change at Local Community Level.* International Development Studies, Occasional Paper No. 3. Roskilde, Denmark: Roskilde University Center. pp. 61-74.

Rhoades, Robert E. 1992. "The coming revolution in methods for rural development research." In Nevin Scrimshaw and Gary Gleason (eds.), *RAP, Rapid Assessment Procedures: Qualitative Methodologies for Planning and Evaluation of Health-Related Programs.* Boston: International Nutrition Foundation for Developing Countries.

Scoones, I. 1995. "Investigating difference: Applications of wealth ranking and household survey approaches among farming households in southern Zimbabwe." *Development and Change*. 26, 67-88.

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Child Survival
CONNECTIONS

CS Connections is a publication of The Child Survival Technical Support (CSTS) Project and the CORE Group. CSTS is funded by the Office of Private and Voluntary Cooperation, Bureau of Humanitarian Response (BHR/PVC), of the United States Agency for International Development (USAID), under contract number FAO-C-00-98-00079-00, and is managed by ORC Macro. The Child Survival Collaborations and Resources Group (CORE) is funded by BHR/PVC under grant number FAO-A-00-95-00024-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of USAID.

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