

Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment

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Photovoice is a process by which people can identify, represent, and enhance their community through a specific photographic technique. As a practice based in the production of knowledge, photovoice has three main goals: (1) to enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important issues through large and small group discussion of photographs, and (3) to reach policymakers. Applying photovoice to public health promotion, the authors describe the methodology and analyze its value for participatory needs assessment. They discuss the development of the photovoice concept, advantages and disadvantages, key elements, participatory analysis, materials and resources, and implications for practice.

INTRODUCTION

Photovoice is a process by which people can identify, represent, and enhance their community through a specific photographic technique. It entrusts cameras to the hands of people to enable them to act as recorders, and potential catalysts for change, in their own communities. It uses the immediacy of the visual image to furnish evidence and to promote an effective, participatory means of sharing expertise and knowledge. In previous instances, we have called this methodology *photo novella*.^{1,2} But the terms *photo novella*, *foto novella*, and *photonovel* have also been commonly used to describe the process of using photographs or pictures to tell a story or to teach language and literacy.^{3,4} The process to be described here is significantly different; hence, the term *photovoice*.

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Photovoice has three main goals: (1) to enable people to record and reflect their community's strengths and concerns, (2) to promote critical dialogue and knowledge about important community issues through large and small group discussion of photographs, and (3) to reach policymakers. In line with these goals, people can use photovoice as a tool for participatory research. Photovoice is highly flexible and can be adapted to specific participatory goals, different groups and communities, and distinct public health issues. In this article, we describe the concept and methodology, with emphasis on the first goal, using photovoice to conduct participatory needs assessment.

DEVELOPMENT OF THE CONCEPT

We have developed the concept for photovoice from three main sources: (1) the theoretical literature on education for critical consciousness, feminist theory, and documentary photography; (2) the efforts of community photographers and participatory educators to challenge assumptions about representation and documentary authorship; and (3) our experience articulating and applying the process in the Ford Foundation-supported Yunnan Women's Reproductive Health and Development Program.

The theoretical underpinnings of photovoice¹ described in an earlier article can be reviewed briefly here. First, in the adaptation for health education initiated by Wallerstein and Bernstein,⁵ based on Freire's methods,⁶ problem-posing education starts with issues that people see as central to their lives and then enables them to identify common themes through dialogue. Freire noted that one means of enabling people to think critically about their community, and to begin discussing the everyday social and political forces that influence their lives, was the visual image.⁶ He used line drawings or photographs that represented significant realities or "coded situation-problems."⁷ Photovoice takes this concept one step further so that the images of the community are made by the people themselves.

Second, feminist theory and practice has shed light on the male bias that has influenced participatory research. In an important contribution to this critique, Maguire⁸ has noted that participatory research may unwittingly contradict itself by making women invisible. She has, for instance, observed:

Consider the drawings used by Freire for cultural circle discussions. The drawings, used as the basis for group dialogue about "man in the world," without doubt, suggest that *men*, not women, create culture. These drawings encourage men and women to focus on men's contribution to culture. Freire maintained that domination was the major theme of our epoch, yet his conscientization tools ignore men's domination of women. (p. 84)

Whereas Rowbotham⁹ has said that "We learn ourselves through images made by men," the work of Chinese village women as visual anthropologists has demonstrated that the exact opposite is possible. Because virtually anyone can learn to use a camera, photovoice may be particularly powerful not only for women but also for workers, children, peasants, people who do not read or write in the dominant language, and people with socially stigmatized health conditions or status. It recognizes that such people often have an expertise and insight into their own communities and worlds that professionals and outsiders lack.

Third, how does the method differ from orthodox approaches to documentary photography? Photovoice gives cameras to people who might otherwise not have access to such

a tool, so that they may record and catalyze change in their communities, rather than stand as passive subjects of other people's intentions and images. At the same time, historic and contemporary uses of documentary photography have informed the photovoice approach.

The term *documentary photography* has been used to describe an immense array of visual styles, genres, and commitments. Roy Stryker, chief of the Historical Section of the Depression-era U.S. Farm Security Administration, shaped one of the most well-known contributions of documentary photography. He dispatched a staff of photographers, including Walker Evans, Dorothea Lange, and Ben Shahn, to capture the relationship between rural poverty and improper land use, the decline of the small farming community, and the growth of urban decay.¹⁰ Documentary photography has been characterized as the social conscience presented in visual imagery.¹¹ Stryker has provided a simple, broad, and powerful definition of documentary photography: "the things to be said in the language of pictures."¹²

One of the earliest and most famous efforts to enable indigenous people to produce their own images was initiated by Worth and Adair. In 1972, they wrote *Through Navajo Eyes*, an analysis of their experience training Navajo citizens to film their social world.¹³ As Feitosa has noted, however, *Through Navajo Eyes* reflected the interests of the researchers rather than those of the Navajos.¹⁴ By contrast, during the past several decades, the Mekaron Opoi Doi project with the Kayapo Indians of Brazil has been a landmark effort to reshape the documentary form. The project has "had as its goal enabling the Kayapo to produce *their* own videos according to *their* interests and needs" (p. 48, emphasis in the original).¹⁴ And Kuttab has used videocameras and community-based production techniques to enable Palestinians living in the occupied territories to portray their lives as outsiders had not.¹⁵

In expanding the practice of documentary photography, Ewald's *Portraits and Dreams* presented the images and words of Appalachian youth who portrayed their everyday lives.¹⁶ In line with this trend, the photographer Jim Hubbard has described teaching and learning alongside homeless children who are "shooting back" with cameras.¹⁷ Spence's Photography Workshop in Britain has helped to stretch the boundaries within which community groups, labor and women's movements, and adult educators can move "toward a better understanding of the progressive potential for making and using photographs" (p. 89).¹⁸ Spence explicitly attempted to encourage peasants and workers "to open up for discussion the social, political, institutional, and subjective spaces which we occupy daily" (p. 221).¹⁸ Further, Young has promoted citizen participation by having junior high school students photograph the basic structure of their local school system and discuss how they would go about influencing leaders and making a change they believed in.¹⁹ And Roter, Rudd, Frantz, and Comings,²⁰ as well as Rudd and Comings²¹ have described an innovative process in which community members help craft health education text and photographs based on Freirian principles. These efforts have offered imaginative models for integrating community participation, health concerns, and the visual image.

ADVANTAGES

Linking Needs Assessment With Community Participation

Why use a technique like photovoice for participatory needs assessment? The current literature on needs assessment describes community inventory, community assessment,

context evaluation, diagnostic evaluation, formative or process evaluation, and social diagnosis, as well as citing the advantages of time-honored assessment tools such as focus groups, nominal group process, Delphi technique, surveys, archival research, and interviews.²²⁻²⁵ A full comparison of photovoice with each of these approaches is beyond the scope of this article. However, photovoice offers several distinctive contributions to needs assessment. First, it enables health researchers and practitioners to gain “the possibility of perceiving the world from the viewpoint of the people who lead lives that are different from those traditionally in control of the means for imaging the world” (p. 50).²⁶ As such, this approach to participatory needs assessment, or participatory appraisal, values the knowledge put forth by people as a vital source of expertise. It confronts a fundamental problem of needs assessment: what researchers think is important may neglect what the community thinks is important. As Gaventa has noted, the participatory process assumes the legitimacy of popular knowledge produced outside a formal scientific structure.²⁷

Second, photovoice addresses the descriptive mandate of needs assessment through an exceptionally powerful means—the visual image. To enable people to describe their perceived needs, photovoice appropriates this robust form of communication. As the social documentary photographer Lewis Hine has said, “If I could tell the story in words, I wouldn’t need to lug a camera.”

Third, the process of photovoice can affirm the ingenuity and perspective of society’s most vulnerable populations. In Yunnan, for example, many village women are not formally educated; they were poor or they had to work to help support their families or the parents believed that schooling was less important for females. These conditions are not unique to rural China. Photovoice is accessible to anyone who can learn to handle an instamatic camera; and, what is more, it does not presume the ability to read or write.

Fourth, the method facilitates the sampling of different social and behavioral settings. People with cameras can record settings—as well as moments and ideas—that may not be available to health professionals and health researchers. The village women of Yunnan, for example, sometimes brought cameras to the market, the water pump, the clinic, the rice paddy, the tobacco drying shed, the election hall, and the pharmacy. To paraphrase Warren, local participation in the method increases the probability that the program site “will be diagnosed as having a richer and more complex social life” than if only formal survey sampling techniques are used.²⁸

Fifth, this method can sustain community participation during the period between the needs assessment phase and program implementation. Cameras are an unusually motivating and appealing tool for most people. Using them in a photovoice project can be a source of community pride and ownership.

Sixth, photovoice provides a way to reaffirm or redefine program goals during the period when community needs are being assessed. In Yunnan, the village women were often asked by friends and neighbors why they were taking pictures. Their own explanations served to focus attention on women’s status and health, to teach the community about the goals of the project, and to solicit people’s feedback about the process.

Seventh, photovoice enables participants to bring the explanations, ideas, or stories of other community members into the assessment process. They can use this advantage in almost any variety of picture-taking situations. For example, taking into account the time of day when she took the picture, one village woman posed questions to learn a girl’s own story about her work burdens (see Figure 1).

Eighth, photovoice provides tangible and immediate benefits to people and their networks. As Buchanan has noted, long-term community members cultivate long-term relationships.²⁹ Giving photographs back to neighbors and friends enables participants to



Figure 1. "I took this photograph in Luliang County. I asked the girl in the picture her age. She said she was not yet ten and in her third year of school. I asked her many questions. 'Do you have homework at noontime?' 'Yes.' 'What do you do after lunch?' 'I have to collect and wash the bowls and chopsticks and feed the pigs, because my parents are working in the field.' If the parents were educated they wouldn't let the child do so much housework. Village women, because of heavy housework and field work, don't have time to look after their children's studying. 'Can your parents read?' 'No.' I took this photo to make the parents pay attention to the educational issue of children, and to influence them to reduce home chores and field work." Photograph and caption by Jin Xiang Xiang, a Luliang County farmer, age 40.

express their appreciation, build ties, and pass along something of value made by themselves.

Ninth, the method enables people to depict not only the community's needs but also its assets. By contrast, household surveys and other conventional needs assessment methods—in which people are counted, interviewed, and questioned—may inadvertently reinforce a sense of impotence, inferiority, and resentment. McKnight notes that the range of community experience includes capacities, collective efforts, informality, stories, celebration, and tragedy.³⁰ In Yunnan, the village women photographed moments of loss and grief as well as those of celebration and strength, and elicited stories about the community's imagination, resources, and capabilities.

Finally, embedded in a Freirian context of problem-posing education, the images produced and the issues discussed and framed by people may stimulate social action. Photovoice can be a tool to reach, inform, and organize community members, enabling them to prioritize their concerns and discuss problems and solutions. Photovoice goes beyond the conventional role of needs assessment by inviting people to become advocates for their own and their community's well-being.

Adaptability

Photovoice can be used in many ways: (1) for specific participatory objectives in health promotion, (2) with different groups and communities, and (3) for diverse public health issues. For example, although this article focuses on photovoice as a methodology for participatory needs assessment, the same methodology can be adapted for participatory evaluation. As an illustration, in the Yunnan project, the village women have turned the cameras back on the project to evaluate what worked and what failed in the programs and policies instigated.³¹ And in the United States, photovoice is currently being used in separate projects with high school students and with village health workers. Finally, the breadth and depth of public health problems suggest that photovoice may be a creative approach that enables people to identify, define, and enhance their community according to their own specific concerns and priorities.

DISADVANTAGES

What are the limitations of photovoice? First, the potential risks to participants must be made explicit. If *politics*, in a dictionary definition, is "competition between competing interest groups or individuals for power," then persons who document community reality and discuss community change are committing political acts. Thus, in Yunnan, it was the cadres and peasants, not the project funders or consultants, who would face uncertain or unpredictable outcomes. Therefore, as photographers, the women engaged in de facto self-censorship by deciding which actions would be appropriate to photograph and which would not. They were mindful of what might be in the best interests of themselves, their families, and their village. As facilitators, the cadres and organizers asked women to photograph evidence of conditions and problems they would like to see changed, but they refrained from asking them to focus on the most politically sensitive topics. For example, had they asked, "What is your greatest fear?" or "What are you most afraid of?" they might have learned more about the social forces of domination, access, and authority that shaped women's realities. If the intent "to do no harm" is paramount, there is the danger, as Minkler has noted, that "the process of community organization itself may serve more to maintain the status quo than to change it" (p. 208).³²

Second, personal judgment may intervene at many different levels of representation: who used the camera, what the user photographed, what the user chose not to photograph, who selected which photograph to discuss, and who recorded whose and what thoughts about whose and which photographs. The postmodern scrutiny of these issues compares, in survey research, to examining who designed a questionnaire, what questions were put in and what questions were left out, who implemented the questionnaire, who analyzed what components of the data, and who reported what components of the data. What is more, while one may interpret what material has been included, it is hard to discover what has been left out. In other words, all methodologies hide as well as disclose.

Third, broader class stratification may be reproduced by the control of resources. For example, the process entrusts cameras to the hands of ordinary people, but in whose hands does money, support, and editorial control remain?^{2,33} The participatory process attempts to address material and status inequalities, yet the extent to which it may perpetuate those inequalities deserves scrutiny.

Other dilemmas arise when using photovoice as a tool to assess community assets and needs. Photographs are easy to gather but difficult to analyze and summarize because they yield an abundance of complex data that can be difficult to digest.

In addition, limitations of capital, transportation, and communication raise unique concerns. Large-scale applications of photovoice, as in rural Yunnan, require cooperation between different levels of government—province, county, and township leaders. The Women's Federation, a national organization that promotes women's well-being, possessed fewer resources than most of its government counterparts, but its cadres succeeded in getting the Bureau of Public Health to provide drivers and vehicles, which were crucial assets in the remote countryside. Cooperation between such groups strengthened ties within and among institutions serving women. The process of a community-based photovoice project can increase communication and build networks among organizations that might otherwise seldom interact, even though the social and economic problems they strive to solve overlap.

Finally, methodological ideals may not coincide with reality. For example, audiotaping people's narratives about their photographs can capture the breadth, nuance, and idioms of people's stories. In Yunnan, audiotaping would have spared others the difficult task of attempting to script Chinese characters longhand at the speed of the photographers' reflections. However, we rejected this approach for several reasons. First, needs assessment always takes place within a social and political context.³⁴ China has a long history of persecuting its own; a person leaving an audiotaped record of her opinions might well fear self-incrimination. Second, some cadres had quietly expressed concern about whether photovoice was a foreign intelligence project: what was the purpose of tape-recording what uneducated village women had to say? Third, the use of tapes would have introduced a degree of excruciating self-consciousness for many village women, who also believed it was strange, if not suspicious, for anyone to think they had anything valuable to say.

PHOTOVOICE ELEMENTS

Building Capacity for Action

From its inception, the Yunnan Women's Reproductive Health and Development Program has acted on the belief that local women themselves are best able to define and articulate their own needs and that they ought to be the most important actors in designing efforts to address those needs.

McLeroy, Bibeau, Steckler, and Glanz have noted the power of mediating structures that connect individuals and the larger social environment and that serve as points of access to, and influence on, the larger social environment.³⁵ Such structures may include activists, policymakers, journalists, and elected officials and may take the form of a steering committee, board of directors, or advisory group. In Yunnan, participants created the capacity for action by organizing the Provincial and County Guidance Group. Guidance Group members were recruited from the leadership of virtually every sector of Chinese society that influences women's health. Throughout the needs assessment, the group provided a formal forum for feedback, such as through slide shows in which people showed to policymakers what mattered in their daily lives and what needed to change.²

Facilitators

Ideal principles of facilitation include a commitment to improve the ability of group members to work together effectively, to provide an information resource, and to reduce dependence on the facilitator for solving future problems.³⁶ A core training team may include both outsider and insider facilitators. In Yunnan, outsider facilitators were public health workers who had lived and worked in China, were proficient in the local language, and had a commitment to improving women's health and social position through an adaptation of Freire's work. Insider or indigenous facilitators were township, county, and provincial Women's Federation cadres, including highly skilled teachers and community organizers.

The word *facilitator* has a ring of neutrality. However, in photovoice, the facilitator is accountable to a group or community and openly committed to certain kinds of social change. The facilitator must recognize the political nature of photography and community-based work. He or she should be sensitive to issues of power and ethics related to cameras; should recognize personal aesthetic tastes and biases in photography; and should be supportive of different styles of picture-taking.

While the ability to teach others how to use a camera is necessary, being an effective facilitator turns on one's understanding of photovoice as a Freirian process of discussion and action and on the ability to facilitate dialogue about the social and political context of women's visual images. For example, when discussing a Yunnan woman's picture of children eating a meal, a cadre, in her role as facilitator, began to pose a series of questions: What is this photograph about? What is the girl at the table doing? What do her conversation and laughter at the table suggest? How does what she's allowed to do relate to our experience as young girls? And now, as mothers? What do these reflections tell us about girls' status? What are the cultural expectations that we grew up with? What are the cultural expectations for females and males that we want to promote or to change today? How could we do that? What strategies for action do we have? How might these actions make a difference? What are the barriers? What are our resources?

A facilitator's commitments require an understanding of local history, economics, and culture. As Fernandes and Tandon have suggested, this understanding takes on greater importance when outsiders participate as facilitators and trainers, for they enter "not as persons who have answers but as learners." For them, "the starting point should be humility, honesty, and openness in [their] participation and a recognition of the failure of solutions" that do not consider the cultural patterns and social relations of people and that exclude people from the decision-making process (p. 201).³⁷

Preparing local women to serve as trainers had several purposes: to enrich collaboration between community organizations and the people they serve; to improve existing organizations' infrastructure, effectiveness, and credibility in the community; and to improve the skills and resources of grassroots workers dedicated to social change. For instance, in assuming the role of trainers in photovoice, local township Women's Federation cadres could provide social support that ranged from emotional, instrumental, informational, and appraising in nature.³⁸ By planning and implementing photovoice as an effort in successful large-scale community organizing, the cadres also strengthened their power, visibility, and capacity as local leaders.

As Hochbaum, Sorensen, and Lorig have put it, "Even the best and most proven theories are no substitute for practitioners' training, experience, mastery of skills, knowledge, and inventiveness" (p. 309).³⁹ In Yunnan, for example, village women were inspired by one cadre who was also a seasoned teacher and school principal. When they explained

that their friends and family members would put on their best clothes and insist on posing for pictures, the cadre urged them to answer with ingenuity and humor. They could say to their friends, "All right! Let's take a picture! Let's go to the field where you planted tobacco today!" or "Show me what you do in the kitchen!" or "Show me where your water comes from!" In this way, she said, the women could educate their neighbors about the purpose of the project, achieve its aims, and also fulfill their neighbors' requests.

Participants

The ideal "who" or "where" for using photovoice is a community or group in which people are involved in all major phases of selecting and planning the process. For example, it might be a community in which grassroots organizations have expressed a powerful interest in learning about or improving their health.

Why was photovoice carried out in the two Yunnan counties of Chengjiang and Luliang? First, county involvement was not mandated by higher officials at the provincial level as is usually the case in China. Instead, the county leaders expressed a strong commitment to the underlying goal of community participation. Second, the people's income in the two counties fell in the bottom quarter for the nation. Yunnan is one of China's poorest provinces, a criterion important to the donor agency. Third, Chengjiang and Luliang Counties were each within a half day's drive of the provincial capital of Kunming. This relative accessibility would enable provincial and county cadres to work together more closely, instead of county cadres simply doing what was mandated at the provincial level.

In Yunnan, the village women, themselves daughters of villagers, lived in Little Dragon New Street Village, Pine Garden Grass Village, Big Dipper Wheat Field Village, and many other *ziran cun*, or natural villages. Telephones, paved roads, and bicycle and motor transport were scarce in these remote regions, and tasks that are relatively simple to handle in a city—such as getting in touch with people, going to meetings, or photocopying a teaching plan—proved extremely difficult in the countryside. Fortunately, Chinese cadres have spent decades perfecting the practice of community organization, and members of the Women's Federation provided a dedicated infrastructure of insiders for developing and handling film and facilitating regular meetings. The participating village women were supported by hundreds of people at the grassroots level—families, ministry chiefs, drivers, officials, schoolteachers, clinic doctors, and health workers.

In June 1992, some 53 women from Chengjiang and Luliang counties received intensive training in the techniques and process of photovoice. Six months later, an additional 9 village women from Luliang County participated in photovoice training. County- and township-level Women's Federation cadres selected women who were representative of the range of age (18-56 years), marital status (single, married, and widowed), and income in the villages. No two women came from the same natural village. Among the 62 photographers, 50 women came from the Han Chinese majority nationality, and 12 were of Chinese ethnic minority nationality—10 Yi, 1 Hmong, and 1 Hui. All were full-time farmers.

The roles of facilitators and participants may not be mutually exclusive. For example, Women's Federation cadres who facilitated group discussions also took cameras in hand to document their perceptions. Participants led group discussions, posed questions to one another, and encouraged one another to voice their opinions.

APPLICATION OF PHOTOVOICE TO PARTICIPATORY NEEDS ASSESSMENT

Photovoice Trainings

Trainings are tailored to a community's specific goals, culture, and priorities, but several conceptual guidelines apply. When the key application of photovoice is participatory needs assessment, how should facilitators convey this concept? The challenge here is to offer guidelines that might expand, rather than limit, the perceived range of a community's assets and to avoid a language that pathologizes its members.

During the first training in Yunnan, we asked women simply to photograph *nongcun funu shenghuo de jingshen*, or the spirit of village women's everyday lives. We chose this phrase because the term *spirit* might be said to carry an implicit compliment, evoking the strength women need to do their everyday work. Like Ewald, we wanted the people "to expand their ideas about picture taking but to stay close to what they felt deeply" (p. 17).¹⁶

The first training should include a discussion of cameras, ethics, and power; ways of seeing photographs; and a philosophy of giving photographs back to community members as a way of expressing appreciation, respect, or camaraderie. Shared questions might include the following:

What is an acceptable way to approach someone to take their picture?

Should someone take pictures of other people without their knowledge?

What criteria should we use when evaluating photographs?

To whom might people wish to give photographs, and what might be the implications?

The curriculum may then move to address mechanical aspects of camera use. It may include how to protect the camera (what happens if it is dropped, how heat and water affect the camera, and use of the lens cover); parts of the camera (such as batteries, flash, and viewfinder); operating the camera; when to use the flash (the range at which it works); indoor, outdoor, and night use; camera handling when taking photos (holding the camera steady when pressing the shutter release); distance from subject; and framing. It may further cover loading the camera; keeping the back of the film-loaded camera closed; rewinding the film; taking photos in the village; close-ups and angles; different ways to photograph a family or a group of people; posed and unposed pictures; and how symbols of the community or culture might be photographed.

Facilitators should minimize technical advice during the initial trainings to avoid stifling people's creativity. In Yunnan, facilitators advised photographers simply to keep their fingers out of the camera's eye; to place the sun at their back as often as possible; and to avoid putting the center of interest in the middle of the photograph every time. All participants learned to care for, load, and unload a Ricoh YF-20 autofocus, autorewind camera. By the morning of the second day of training, each woman had taken her first roll of 36-exposure color film. That afternoon, while their film was shuttled to county or provincial sites for one-hour developing, each woman talked about what it was like to take photographs for the first time. On the third day, each received the full set of her developed prints, which provided a catalyst for more group discussions.

At the outset of any needs assessment, a fundamental question arises: How are data from an assessment likely to be used?⁴⁰ In Yunnan, women talked about the methodology within the context of the program's broader aims. They knew that their photographs and

vision could become tools to educate policymakers, urban officials, and public health workers and that their images and words might gain a wider audience in local exhibitions and beyond.

Facilitated Small and Large Group Discussions

The purpose of group discussion is to enable people to reflect on the images they have produced. Transferring the photograph to slide form makes group discussion easier and literally enlarges the visual impact of the images. People may wish to study a variety of internationally known historic images that illustrate how photography has been used to promote social change. In Yunnan, for example, women looked at photographs by the Depression-era American photographers Dorothea Lange and Walker Evans. They saw pictures taken by the Appalachian children taught by Wendy Ewald. They thought of their own children when they were shown a picture of an American child lying across the back of his spotted horse.¹⁶ They studied more photographs taken by the homeless youth of Jim Hubbard's "Shooting Back" project: snapshots of a boy leaping into a handspring, of the Washington Monument studied behind a barbed wire fence, of three children's faces contorted with worry as their hands clasped a wounded pigeon.¹⁷ They admired the black, white, and grey purity in the pictures of everyday rural life as captured by the Chinese photographer Li Yuan Qi: a young fellow from Liaoning eating steamed bread, a male farmer from Henan shouldering a sack of rice, and bespectacled old men from Shanxi peering up at the sky.⁴¹ But where were the women in Li's photographs? Li's pictures gave dimension and language to the beauty of ordinary life, but they also suggested a need to document the spirit, work, and struggles of rural women.

Though such historic images illustrated varied and powerful approaches to photography as a form of expression and offered some inspiration, the majority of the pictures discussed in Yunnan were the people's own. At the first opportunity, the Women's Federation cadres and village women saw their own work as slides. For example, one farmer photographed what life is like when it rains in the village (see Figure 2). She selected this photograph for group discussion, and when she explained what was happening in it, other participants offered words of affirmation and assent. When she later wrote in her caption "We hope that the situation can be improved," she wanted to express not only the feelings of the discussion participants but also those of many people in the village.

The facilitators and the women themselves set a supportive tone for discussion, and their mutual involvement grew from tentative to enthusiastic. For instance, one woman who was too shy to introduce herself on the first day began to speak out with confidence as weeks went by. Facilitators acknowledged that the women might prefer talking individually among themselves rather than in group settings, that they might be reluctant to bring up problems for fear of being seen as challenging their leaders and as complaining of neglect, and that they felt a responsibility to one another that induced respect.

In Yunnan, the well-known photographer and editor for a popular magazine, *World of Women*, volunteered his time and skill for the training workshops. Using a native Yunnan dialect, he urged the women not to *shi er bu jian*—turn a blind eye to the obvious—and explained how they could take photographs of relationships, conditions, and chance occurrences. They laughed when he illustrated that while one could get a friend to pose in a chair, one could not pose a dozen chicks scrambling for grain. Fluent in the political

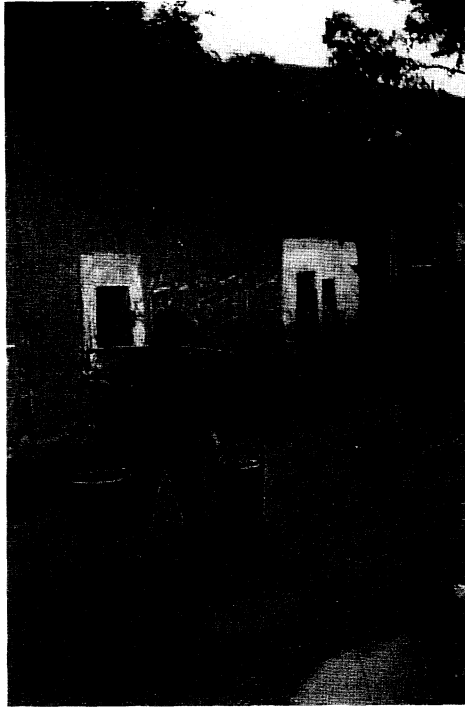


Figure 2. “The old woman is over sixty. She is carrying food to feed pigs. I wanted to capture the industriousness of women in the countryside. Usually, in our village, women her age take care of children at home and do housework and no longer have to do this kind of work, but this woman’s family does not have enough workers. My photo shows that our village is still poor, the houses are run down, and the streets are in poor condition. When it rains, it’s extremely muddy. We hope that the situation can be improved. A paved road would improve the public health condition in the village.” Photograph and caption by Fu Qiong, a Haikou County farmer, age 25.

and cultural etiquette of the countryside, he inspired the women by creating a setting in which they were offered constructive feedback, recognition, and support for their achievements.⁴²

PARTICIPATORY ANALYSIS

In using photovoice for needs assessment, participants should be involved in a three-stage process that provides the foundation for analysis: selecting (choosing those photographs that most accurately reflect the community’s needs and assets); contextualizing (telling stories about what the photographs mean); and codifying (identifying those issues, themes, or theories that emerge).

The participatory approach dictates the first stage—selecting. So that people can lead the way in discussion, it is they who choose the photographs. In Yunnan, women selected the photographs they considered most significant from each roll of film they had taken.

The participatory approach also generates the second stage—contextualizing, or storytelling. This occurs in the process of group discussion, suggested by the acronym

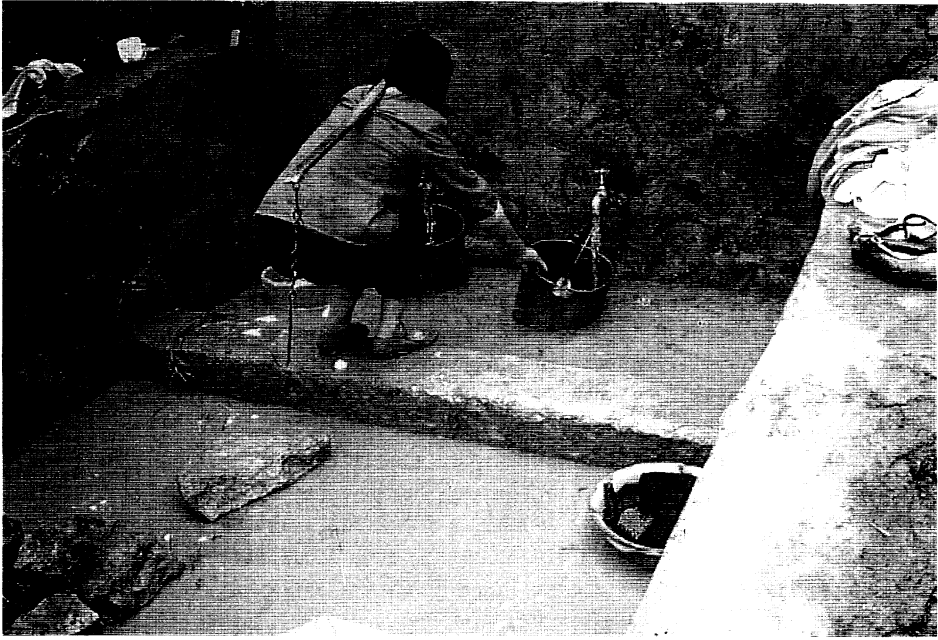


Figure 3. "Drinking water is a problem in our mountainous area. The water is not very clean. The water the woman is getting flows from two faucets. The faucet water is pumped up from the pond by the electric power station. Whenever there is a power blackout in our mountain areas, even the water from these faucets is not available. I wanted to show the difficulty of getting drinking water." Photograph and caption by Li Cui Zhen, a Chengjiang County farmer, age 34.

VOICE—voicing *our* individual and collective experience. Photographs alone, considered outside the context of women's own voices and stories, would contradict the essence of photovoice. In Yunnan, women narrated the meaning of their images in discussion groups, wrote captions for them, or told their stories to family members or friends. Anthropologists from the provincial Academy of Social Sciences, traveling to cluster sites, also wrote down many of the women's stories.

The participatory approach gives multiple meanings to singular images and thus frames the third stage—codifying. In this stage, participants may identify three types of dimensions that arise from the dialogue process: issues, themes, or theories. They may codify issues when the concerns targeted for action are pragmatic, immediate, and tangible. This is the most direct application of the analysis. They may also codify themes and patterns or develop theories that are grounded in data that have been systematically gathered and analyzed in collective discussion.

For example, one woman photographed a farmer wearily stooping to get water from the cistern faucets (see Figure 3). Her photograph repeatedly spurred the reflections and recognition of every village woman. The overwhelming response to this critical image, and to other pictures of women fetching water from cisterns, dredging wells, and hauling heavy buckets, underscored the problem of access to clean water in the villages. Access to clean water has permeated every aspect of rural women's lives, in time spent, physical labor exerted, and unsanitary conditions endured. Similarly, engineering ways to provide clean water sources has been a monumental struggle fraught with obstacles. Local leaders,

confronted with women's photographs that showed these concerns, brought construction of clean water reservoirs to the forefront of the agenda. The women's pictures and stories were not the only catalyst for change, but they helped to focus unprecedented attention on the problem.

We described earlier the dilemmas suggested by issues of representation. A related dilemma of needs assessment is how to prioritize findings. These dilemmas can be partly addressed in the analytical strategy by two kinds of replication: internal and external. Internal replication means that the findings may be validated by other remarks from a single source. External replication means that the findings may be validated by other sources (e.g., told by other individuals' photographs and stories; and other forms of needs assessment). No claim is made that the data that emerge from the process are representative in a social scientific way. But taken together, there may be enough internal and external replication to suggest that the findings provide a reliable picture of people's priorities at a particular historical moment.

When photovoice serves as a tool for participatory needs assessment, data analysis involves people in defining issues. Such an approach avoids the distortion of fitting data into a predetermined paradigm; it enables us to hear and understand how people make meaning themselves or construct what matters to them. Photovoice, to paraphrase Glik, Gordon, Ward, Kouame, and Guessan in a different context, is not simply the shuffling of information around but entails people reflecting on their own community portraits and voices and on what questions can be linked into more general constructs or can be seen to be interrelated.⁴³ Photography provides the medium through which people's visions and voices may surface.

In Yunnan, photovoice did not differ notably from the other needs assessment techniques in what it uncovered; the difference, rather, was in the process that was used and the implications of that process. From the four assessment techniques used (survey questionnaire, nominal group process, focus groups, and photovoice) in the Yunnan Program, the public health needs and issues that were identified spanned burdens and status of women and girls relative to men and boys (including problems with the lack of day care, parents not sending girls to school, and women's household chores beyond their massive farming burdens); access to clean water and transportation; and maternal and child health (including problems with the accessibility and quality of village health stations, lack of female village clinicians, and providers' attitudes). Fugelsang has argued that an assessment may "operate no less efficiently" on comparatively coarse measurements.⁴⁴ Photovoice is a participatory method not of counting up things but of drawing on the community's active lore, observation, and stories, in terms both visual and oral. McKnight has noted that community stories "allow people to reach back into their common history and their individual experience for knowledge . . . and direction for the future" (p. 58).³⁰ Photovoice may provide an effective and vivid way for people to show firsthand their perceived strengths and needs, to promote critical dialogue and knowledge about their community's assets and concerns, and to reach policymakers through images and stories of everyday life to bring about change. It exploits the emotional power of photographs produced by people who carry a particular authority in what they choose to describe. It is designed to increase the individual's and the community's access to power. It may involve people at the grassroots level in all aspects of defining their community's concerns, furnishing the evidence, and getting solutions enacted into programs and policies. Finally, it may complement and enhance other needs assessment strategies.

MATERIALS AND RESOURCES

Some goods may be on hand or donated, but cost items for equipment may include instamatic or disposable cameras, flash batteries, film and processing, and a slide projector. Participants may wish to make scrapbooks for themselves or others; in Yunnan, for example, women created albums and wrote down or dictated captions to family members or friends.

“Shooting Back” participants mastered the use of manual focus cameras and learned to develop film in a darkroom. More closely adapting Ewald’s approach, we used autofocus, autorewind instamatics equipped with a battery-operated flash that a person with no previous formal education could learn to use in one day. We did not assume literacy among the photovoice participants and chose a camera for which the ability to read numbers was unnecessary. The Ricoh YF-20 cameras were produced in Beijing through a joint venture with Japan, which eliminated the prohibitive import tax that might have been incurred by choosing a camera manufactured elsewhere.

Students of art and professional photography have often been taught to value black-and-white images over color ones, assigning judgments of aesthetic purity and clarity to the monochrome form.⁴⁵ In Yunnan, village women and facilitators rejected this hierarchy of taste, preferring to buy bulk quantities of color Fuji film sold within the country. Women snapped the rich colors that swathe their native costumes, the ruddy complexions of their children growing up in tobacco fields, and the hues that outline the water cisterns.

The choice of film and camera must be guided by a long-term practical view: What are the easiest items to keep using after donor funding is gone? In China, color photo labs were more accessible to township and county residents than black-and-white ones. Sturdy instamatics minimized mechanical difficulties.

Are videocameras appropriate for photovoice? Many videocameras currently available are relatively simple to use, and over time the technology will continue to become less expensive and more widespread. In the meantime, we call attention to McKnight’s concern about the use of technical devices “that necessarily require outside dominance” to be used effectively.⁴⁶ On one hand, the Palestine project noted earlier yielded a vital community self-portrait using videocameras. On the other hand, participants first took an intensive three-week training course, and four months of laborious editing in New York were subsequently required.¹⁵ In Yunnan, participants simply took photographs home to elicit others’ stories and feedback; access to a videotape player or editing equipment was unnecessary. Photovoice should be creatively and flexibly adapted to the needs of its users. We suggest that communities, groups, and facilitators consider both the technical and the humanistic advantages and disadvantages in choosing what kind of camera to use. A premise of the photovoice method is accessibility and that people can participate with a minimum of technical training.

What happens to the cameras at the end of the project? In *Portraits and Dreams*, Ewald wrote that the Appalachian children who photographed their mountain life purchased their cameras; she hoped this would give them a sense of ownership and value.¹⁶ In Yunnan, photographers gained opportunities and advantages not available to other people in their village (for example, women received all of their prints from each roll to keep or distribute to friends), and so cameras were not made as an outright gift. Instead, Women’s Federation cadres and village women decided on an affordable price that was approximately 25% of the cost of a new camera. All the women chose to buy the cameras, and the money raised was donated to the local Women’s Federation for community projects to benefit women.

In addition, a number of Women's Federation cadres currently use the cameras for participatory evaluation, documenting and spurring critical dialogue about the successes and limitations of the new projects generated by photovoice as participatory needs assessment.

IMPLICATIONS FOR PRACTICE

As noted earlier, photovoice offers important advantages for needs assessment in general and for participatory needs assessment in particular. Our experience in Yunnan suggests additional implications for practitioners interested in infusing all levels of program design and evaluation with a participatory approach. First, photographs, belonging to the photographers and to the people depicted and displayed in the community's public spaces, may bear witness to otherwise individualized, yet truly public, issues.^{47,48} In Yunnan, photovoice gave participants a tool for directly observing and documenting their community's native strengths as well as its problems. As Freire has shown, visual images can stir a group to analyze critically many social relations and conditions within their own community. Photographs may fuel critical consciousness and collective action by making a political statement about the reality of peoples' lives.⁷

Second, as a participatory method, photovoice is well suited to address what Green and Lewis have called "theory failure."⁴⁹ For example, we frequently encountered the assumption that lack of knowledge was the major problem facing rural women. But by using the photovoice method, the village women themselves documented the fact that their major problems included lack of water, lack of transportation, and lack of child care. As a means of participatory needs assessment, photovoice provides a community-based diagnostic tool to redress the inadequate theory on which programs may be based.

Third, Guyer, Schor, Messenger, Prenney, and Evans have noted that needs assessment methods may provide a powerful means to advocate increased funding and to guide the distribution of money.⁵⁰ Finally, close to the vein of media advocacy for public health innovated by Wallack, Dorfman, Jernigan, and Makani, photovoice may enable grassroots constituents, representing their own community, to participate in framing the agenda and adding their voice to the policy-making process.⁵¹

CONCLUSION

Photovoice can make several distinctive contributions to participatory needs assessment. First, it can give health researchers and health professionals "the possibility of perceiving the world from the viewpoint of the people who lead lives that are different from those traditionally in control of the means for imaging the world" (p. 50).²⁶ Second, it addresses the descriptive mandate of needs assessment through an exceptionally powerful means—the critical image. Third, the process of creating these images affirms the ingenuity and perspective of society's most vulnerable populations, including those who may not be able to read or write. Fourth, it facilitates the sampling of different social and behavioral settings by taking advantage of the access enjoyed by participatory researchers. Fifth, it can sustain community participation and ownership during the period between the end of needs assessment and the start of program implementation. Sixth, it provides a way to reaffirm or redefine program philosophy, structure, approach, goals,

and values during the needs assessment. Seventh, it enables participants to draw community members' explanations, ideas, or stories into the assessment process. Eighth, it provides tangible benefits to people and their networks. Ninth, it enables people to show not only the community's needs but also its assets and strengths. Finally, embedded in a Freirian context of problem-posing education, the images produced and the issues discussed and framed by people may stimulate community problem solving, organizing, and social action.

Photovoice enables people to percuss their community and to collectively prioritize its needs. Sontag has noted, "The force of photographic images come from their being material realities in their own right, richly informative deposits left in the wake of whatever emitted them, potent means for turning the tables on reality—for turning *it* into a shadow" (p. 180).⁵² Photovoice expands the genre of participatory needs assessment. From the people, their visions, and their words, we can begin to assess real local needs, in the hope that the divergent perspectives of health professionals and laypeople will converge to exert a more effective impact on a community's well-being.

References

1. Wang C, Burris M: Empowerment through photo novella: Portraits of participation. *Health Educ Q* 21(2):171-186, 1994.
2. Wang C, Burris M, Xiang YP: Chinese village women as visual anthropologists: A participatory approach to reaching policymakers. *Soc Sci Med* 42(10):1391-1400, 1996.
3. Weaks D: *The Photonovel: A Tool for Development* (Peace Corps Program and Training Journal Manual Series, No. 4). Washington, DC, Peace Corps, 1976.
4. Walsh CE: *Pedagogy and the Struggle for Voice: Issues of Language, Power, and Schooling for Puerto Ricans*. New York, Bergin and Garvey, 1991.
5. Wallerstein N, Bernstein E: Empowerment education: Freire's ideas adapted to health education. *Health Educ Q* 15(4):379-394, 1988.
6. Freire P: *Pedagogy of the Oppressed*. New York, Seabury, 1970.
7. Freire P: *Education for Critical Consciousness*. New York, Continuum, 1973.
8. Maguire P: *Doing Participatory Research: A Feminist Approach*. Amherst, MA, Center for International Education, 1987.
9. Rowbotham S: *Woman's Consciousness, Man's World*. London, Penguin Books, 1973.
10. Stryker FJ: *Portrait of a Decade: Roy Stryker and the Development of Documentary Photography in the Thirties*. New York, Da Capo, 1977.
11. Rosler M: In, around, and afterthoughts (on documentary photography), in Bolton R (ed.): *The Contest of Meaning*. Cambridge, MA, MIT Press, 1987.
12. Stryker RE: Documentary photography, in *Encyclopedia of Photography*. New York, Greystone, 1963.
13. Worth S, Adair J: *Through Navajo Eyes: An Exploration in Film Communication and Anthropology*. Bloomington, Indiana University Press, 1972.
14. Feitosa M: The other's visions: From the ivory tower to the barricade. *Visual Anthropology Review* 7(2):48-49, 1991.
15. Kuttab D: Palestinian diaries: Grass roots TV production in the occupied territories.
16. Ewald W: *Portraits and Dreams: Photographs and Stories by Children of the Appalachians*. New York, Writers and Readers, 1985.
17. Hubbard J: *Shooting Back: A Photographic View of Life by Homeless Children*. San Francisco, Chronicle Books, 1991.
18. Spence J: *Cultural Sniping: The Art of Transgression*. London, Routledge, 1995.

19. National Foundation for the Improvement of Education: *Cameras in the Curriculum: A Challenge to Teacher Creativity*. Vol. 2, 1983-1984. An NEA/Kodak program administered by the National Foundation for the Improvement of Education.
20. Roter DL, Rudd RE, Frantz SC, Comings JP: Community-produced materials for health education. *Public Health Rep* 96:169-172, 1981.
21. Rudd R, Comings J: Learned developed materials: An empowering product. *Health Educ Q* 21(3):313-327, 1994.
22. Johnson DE, Meiller LR, Miller LC, Summers GF: *Needs Assessment: Theory and Methods*. Ames, Iowa State University Press, 1987.
23. Kettner PM, Moroney RM, Martin LL: *Designing and Managing Programs: An Effectiveness-Based Approach*. Newbury Park, CA, Sage, 1990.
24. Green LW, Kreuter MW: *Health Promotion Planning: An Educational and Environmental Approach*. Mountain View, CA, Mayfield, 1991.
25. Israel BA, Cummings KM, Dignan MB, Heaney CA, Perales DP, Simons-Morton BG, Zimmerman MA: Evaluation of health education programs: Current assessment and future directions. *Health Educ Q* 22(3):364-389, 1995.
26. Ruby J: Speaking for, speaking about, speaking with, or speaking alongside: An anthropological and documentary dilemma. *Visual Anthropology Review* 7(2):50-67, 1991.
27. Gaventa J: The powerful, the powerless, and the experts: Knowledge struggles in an information age, in Park P, Brydon-Miller M, Hall B, Jackson T (eds.): *Voices of Change: Participatory Research in the United States and Canada*. Toronto, Ontario Institute for Studies in Education, 1993.
28. Warren RB: *The Neighborhood Organizer*. Indiana, Notre Dame University Press, 1977.
29. Buchanan DR: Building academic-community linkages for health promotion: A case study in Massachusetts. *American Journal of Health Promotion* 10(3):29-36, 96.
30. McKnight JL: Regenerating community. *Social Policy* (Winter):54-58, 1987.
31. Wang C, Yuan YL, Feng ML: Photovoice as a tool for participatory evaluation: The community's view of process and impact. *Journal of Contemporary Health* 4:47-49, 1996.
32. Minkler M: Ethical issues in community organization. *Health Education Monographs* 6(2):198-210, 1978.
33. Harper D: On the authority of the image: Visual methods at the crossroads, in Denzin N, Lincoln Y (eds.): *Handbook of Qualitative Research*. Sage, Thousand Oaks, CA, 1994.
34. Murrell S, Aponte J, Lin E: Introduction, in Murrell S, Aponte J, Lin E (eds.): *Assessing Health and Human Service Needs: Concepts, Methods, and Applications*. New York, Human Sciences, 1983.
35. McLeroy KR, Bibeau D, Steckler A, Glanz K: An ecological perspective on health promotion programs. *Health Educ Q* 15(4):351-377, 1988.
36. Schwarz RM: *The Skilled Facilitator: Practical Wisdom for Developing Effective Groups*. San Francisco, Jossey-Bass, 1994.
37. Fernandes W, Tandon R: *Participatory Research and Evaluation: Experiments in Research as a Process of Liberation*. New Delhi, Indian Social Institute, 1981.
38. Eng Y, Young R: Lay health advisors as community change agents. *Family and Community Health* 15(1):24-40, 1992.
39. Hochbaum GM, Sorensen JR, Lorig K: Theory in health education practice. *Health Educ Q* 19(3):295-313, 1992.
40. Wutchiette R, Egan D, Kohault S, Markman H, Pargament K: Assessing the need for a needs assessment. *Journal of Community Psychology* 12:53-60, 1984.
41. Li YQ: *The Works of Chinese Photographer Li Yuan Qi*. Beijing, People's Fine Arts Publishing House, 1990.
42. Wang C: Self-portraits by village women, in Wu K, Burris M, Li V, Wang Y, Zhan W, Xian Y, Yang K, Wang C (eds.): *Visual Voices: 100 Photographs of Village China by the Women of Yunnan Province*. Yunnan, Yunnan People's Publishing House, 1995.

43. Glik D, Gordon A, Ward W, Kouame K, Guessan M: Focus group methods for formative research in child survival: An ivoirian example. *International Quarterly of Community Health Education* 8(4):297-316, 1987-1988.
44. Fugelsang A: Nutrition implementation programs as communication systems. *Journal of Nutrition Education* (Winter):16-18, 1972.
45. Jeffrey I: *Photography: A Concise History*. New York, Oxford University Press, 1981.
46. McKnight JL: Health and empowerment. *Can J Public Health* 76:37-38, 1985.
47. Spence J, Solomon J: *What Can a Woman Do With a Camera?* London, Scarlet, 1995.
48. Kaplan D (ed.): *Photo Story: Selected Letters and Photographs of Lewis W. Hine*. Washington, DC, Smithsonian Institution Press, 1992.
49. Green LW, Lewis FM: *Measurement and Evaluation in Health Education and Health Promotion*. Palo Alto, CA, Mayfield, 1986.
50. Guyer B, Schor L, Messenger K, Prenney B, Evans F: Needs assessment under the maternal and child health services block grant. *Am J Public Health* 74:1014-1019, 1984.
51. Wallack L, Dorfman L, Jernigan J, Makani T: *Media Advocacy and Public Health: Power for Prevention*. Newbury Park, CA, Sage, 1993.
52. Sontag S: *On Photography*. New York, Farrar, Straus, and Giroux, 1973.