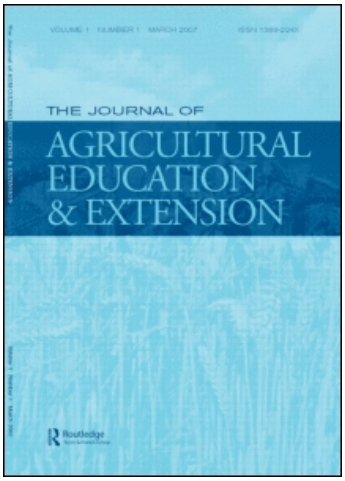

The Journal of Agricultural Education and Extension
Publication details, including instructions for authors and subscription information:
http://www.informaworld.com/smpp/title~content=t741771144

With or Without a Script? Comparing Two Styles of Participatory Video on Enhancing Local Seed Innovation System in Bangladesh

Ataharul Huq Chowdhury[a]; Helen Hambly Odame[b]; Michael Hauser[a]
[a] Centre for Development Research, University of Natural Resources and Life Sciences, Vienna, Austria
[b] School of Environmental Design and Rural Development, University of Guelph, Ontario, Canada

Online publication date: 06 January 2011

To cite this Article Chowdhury, Ataharul Huq , Hambly Odame, Helen and Hauser, Michael(2010) 'With or Without a Script? Comparing Two Styles of Participatory Video on Enhancing Local Seed Innovation System in Bangladesh', The Journal of Agricultural Education and Extension, 16: 4, 355 — 371
To link to this Article: DOI: 10.1080/1389224X.2010.515056
URL: http://dx.doi.org/10.1080/1389224X.2010.515056

Journal of Agricultural Education and Extension
Vol. 16, No. 4, 355–371, December 2010

With or Without a Script? Comparing Two Styles of Participatory Video on Enhancing Local Seed Innovation System in Bangladesh

ATAHARUL HUQ CHOWDHURY*, HELEN HAMBLY ODAME† and MICHAEL HAUSER*

*Centre for Development Research, University of Natural Resources and Life Sciences, Vienna, Austria, †School of Environmental Design and Rural Development, University of Guelph, Ontario, Canada

ABSTRACT *Recent experiences in participatory video-making raise the question of how best to use this medium for enhancing local seed innovation systems. Embedded in a mini-process of participatory action research, two styles of participatory video—scripted and scriptless—were tested and assessed together with farmers and facilitators in Bogra District, Bangladesh. Data, collected through participant observation, informal interviews, group discussions and workshops, were analysed using a combination of Analytic Hierarchy Process (AHP) and Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis. Scripted video can be used as a capacity-building tool and for disseminating sustainable technologies or local knowledge across geographical scales. But there is a risk of goal orientation to produce quality films, which may undermine the spirit of participation and ownership of the process. In the scriptless style, the process seems to be more inclusive but random, and hence, less goal-oriented. Scriptless video can be used as a monitoring tool in local seed innovation systems. Moreover, potential for stimulating self-sustaining spirit within the participant actors appeared to be higher in this style. However, this style may be difficult to institutionalize. Because of the spontaneous and subjective nature of the process and outcome (i.e. the film) that underlies scriptless videos, participatory video may be produced in a specific geographical context and not necessarily be replicable or relevant elsewhere. This study raises several critiques about the usefulness of these two major styles of participatory video and argues that both styles have specific usefulness and therefore can be used in combination to enhance local seed innovation systems in Bangladesh, and possibly, elsewhere in South Asia.*

KEY WORDS: Participatory video, Local innovation system, Seed, Bangladesh, South Asia

Introduction

Farmers continuously devise or develop new ways to solve local crop seed problems. These local techniques and/or innovations contribute to the production and availability of quality crop seeds in many developing countries, including Bangladesh

Correspondence address: Ataharul Huq Chowdhury, Centre for Development Research, University of Natural Resources and Life Sciences, Gregor Mendel Strasse 33, Vienna 1180, Austria. Email: ataharulhuq.chowdhury@boku.ac.at

1389-224X Print/1750-8622 Online/10/040355-17
DOI: 10.1080/1389224X.2010.515056

(Almekinders et al., 1994; FAO, 2006). By nature of being 'positive deviants', Pant and Odame Hambly (2009) argue that innovative farmers are few and scaling out the spirit of their innovativeness is an important challenge to enhance local innovation system. Wettasinha, Wongtschowski and Waters-Bayer (2008) argue that development agencies, scientists and others should contribute ideas, information, motivation, resources, knowledge and skills to enhance local innovation systems without dominating farmer innovation. Therefore, facilitating participatory communication that triggers local innovations and brings them to a wider audience of users, partners and policymakers is one of the key challenges to agricultural development, especially in the context of enhancing local seed innovation systems in rural Bangladesh. Video is especially intriguing because it can be used in many ways to record and enhance communication between farmers, rural service providers and scientists for better rice seed pest management (Van Mele, 2008a).

Video has been used for several decades, mostly as a form of mass media for information dissemination and formal or non-formal education for farmers and other rural clients (Johansson and de Waal, 1997). An advantage of this medium is the use of the local language, especially among non-literate audiences. It can be used 'in-situ' as well as 'ex-situ', for example, through televised video programmes. However, as a mass media, television alone serves linear and one-way communication flow and misses its potential for self-sustaining processes of rural change. Experience suggests that it may not always be possible to scale up readymade technologies by using video as a form of mass media (Lie and Mandler, 2009). As well, the learning-rich interactions possible in video are considered tremendously important to solving complex problems demanding input from multiple stakeholders across time and space/place (Witteveen, 2009). Therefore, an alternative form of video, known as participatory video (PV), has been used for engaging stakeholders, facilitating development dialogues and sharing local innovations (Lunch, 2004).

Since the 1960s, PV has been used to engage different development stakeholder groups in dialogue and planning in coastal Canada under the name of 'the Fogo Process' (Snowden, 1998). By the 1980s, it had become an important development communication medium in Asia and Africa (White, 2003). PV is a very flexible method, whose main feature is documenting and developing local innovation capacity by, and with, rural clients by engaging them in different stages of video development. In most cases of PV, readymade scripts are not used, and emphasis is placed on handing over the camera and the editing process to the participants (see Johansson et al., 1999; White, 2003). Furthermore, local people learn the skills of using the medium or tool, i.e. the camcorder, thinking through the storyboard (the series of visual frames that presents the story) and creating their own scripts (the story as spoken word) to make their own films, implicitly using their own voices that may feature on film, but perhaps more so, in all of the recording and editing stages. The process ultimately develops their self-consciousness and empowers them through skill and knowledge acquisition and group development (Shaw and Robertson, 1997). As an audio-visual recording PV can also be used to mediate communication with otherwise unreachable 'others' (e.g. policymakers) (Witteveen et al., 2009). Some authors, e.g. Lunch and Lunch (2006), advocate the use of a highly flexible structure for message development, for example, an adjustable storyboard that is less important than the story as spoken word, while some others (e.g. White and Patel,

1994) work with a more structured plan for the message development created in a story workshop following a pre-determined series of steps, one of which is the scriptwriting.

In Bangladesh, video was used for the development and dissemination of local rice seed innovations during 2003–2004. Local rice seed innovations having regional relevance were identified through broad stakeholder consultations and participatory learning. Videos were developed by teams of specialists based on the contents identified. They were then used for non-formal education with a cross-over to the more spontaneous and flexible PV for zooming out (scaling out by training more farmers) the innovations (Van Mele, 2006; Van Mele, 2008b). This approach of participatory learning material development is known as zooming in and zooming out (ZIZO). The videos developed through this approach used scripts and involved professional handling of the camcorder (Van Mele et al., 2005). They document multi-actor learning, followed by organized dissemination processes, which enhance visualization and quality of the film.

There are different views on the use of a script and camera handling by the participants in a PV process. Following Huber (1999) this study assessed the comparative usefulness of the PV based on the use, or not, of a pre-determined script and professional versus participant handling of the camera in the context of enhancing local seed innovation systems in Bangladesh.

Methodology

Study Location and Duration

The research was conducted in Bogra, a district in north-west Bangladesh, and situated about 220 km from the capital, Dhaka. Kamarpara village of Sajahanpur Upazila (sub-district) was purposively selected as the locale of the study. The reason for selecting this village was that the farmers were interested to use the video for enhancing their seed production and processing, as well as for organizing themselves in a group. The study lasted from October 2008 to February 2009.

Actors

The field research was carried out together with the Rural Development Academy (RDA), Bogra, and the Marginal Farmers' Development Association (MFDA), Kamarpara. First, a team was formed to facilitate overall video and research activities. This team, called research facilitation team (RT), comprised five members, including the first author. Other members were from the regional farmers' PV development team of RDA. Two projection meetings were organized in the village to select participating farmers and discuss the intricacies of video-making. At these meetings, the participants proposed formation of a separate farmers' video team (FVT). So, an FVT of five participants (three men and two women) was formed, based on group consensus. The FVT was to assist in facilitating field-level video development events. After formation of teams and discussion of research and video development intricacies, participants (men and women) were selected based on their interest to participate in the two PV activities.

Twenty farmers participated in the scripted PV and 26 in the scriptless PV. In each group, the responsibilities were further delegated based on group consensus through the facilitation of the FVT.

Video Styles

Farmers proposed several topics for the two types of video to be developed—scripted and scriptless—although the differences between the two were not defined by having a script or not alone (see Table 1). Based on consensus on the importance to the farmers, a technical topic, i.e. local practices for eggplant seed production and post-harvest, was chosen for the scripted video, whereas a topic addressing both social and technical issues was chosen for the scriptless video. In the case of the scripted style, local practices regarding eggplant seed production (agronomic practices) and storage were identified based on month-long consultations and observation tours with the farmers in the village. In addition, local extension agents, researchers and eggplant seed producers of the district were interviewed by the RT to understand the practices. The script was developed together with the participant farmers. In the scriptless style, members of the FVT were trained in basic camera operations by the RT for a week. The proposed content of the video was identified in three group meetings involving the FVT and additional male and female farmers. Participants who wanted to narrate

Table 1. Major features of scripted and scriptless styles of video.

Features of style	Scripted video	Scriptless video
Topic	Documenting farmers' innovative practices for eggplant seed production and processing	Problems and prospects of farmer seed production and processing activities
Content identification	Different innovative practices for eggplant seed production and processing are identified through group discussions and consultations	Participant farmers discuss messages to include in the videos. Different messages (stories) are listed in posters marked in four frames
Script development	Script is developed by the RT and FVT; draft script is discussed with the participants before shooting	No script is used; participants narrate their stories spontaneously in front of the camera
Camcorder operation	Video camcorder is handled by the RT	Video camcorder is handled and managed by the FVT
Selection of rough video clips	Clips are selected at the studio based on the script	Video clips are selected in the field during weekly sessions
Draft editing	Editing is done by professionals at studio	Editing is done by professionals together with farmers' video team during weekly screening
Validation and final editing	Draft video is shown to farmers to validate the message(s)	Draft video is shown to farmers to validate the message(s)
Video shows/ broadcast	Organized by the RT and FVT	Organized by the RT and FVT

Source: Authors.

stories were organized and identified in a very rough storyboard, i.e. a poster marked with four frames. No script was developed; the participants expressed themselves spontaneously in front of the camcorder. After development of the final films, three video shows were organized in different locations in the village, one in another village, Chupinagar, of the sub-district, one in a village, Maria, of a different sub-district, Sherpur, of Bogra. In addition, the films were broadcast on a local cable television in the district. After each video show, audience's feedback was solicited through open discussion.

Data Collection and Analysis

Data were collected at two stages. First, a list of factors/indicators regarding possible usefulness of the two styles of PV in enhancing local seed innovation systems was drawn up by the RT based on informal interviews and group discussions with the participants. In addition, participant observations during the video production, screening and assessment of the styles were recorded manually in a field diary. The factors were categorized under four groups, namely Strengths, Weaknesses, Opportunities and Threats (SWOT). The SWOT factors were then refined at a workshop with the FVT and RT. SWOT was combined with the Analytic Hierarchy Process (AHP) to derive new quantitative information about the situation (for details, see Masozera et al., 2006; Kurtilla et al., 2000). SWOT is a conventional way of conducting a situational analysis in which the magnitude of the factors on the proposed present or future projected situation is not quantified (Kurtilla et al., 2000). AHP, on the other hand, is a method of analysing a problem by decomposing it into its decision elements. Since the number of factors within each SWOT group should desirably not exceed ten (Kurtilla et al., 2000), only the most relevant factors were identified and retained (Table 2).

In the second stage, pair-wise comparisons were made with 15 farmer participants (FVT and participating farmers) and RT at two one-day workshops. In case of the RT, five regional and national PV experts were also included. The experts were two non-governmental organization (NGO) representatives, one RDA staff member and two national-level participants from the Agricultural Information Service, who had prior experience in farmers' participatory video development processes. At first, SWOT factors within a group were compared with each other on a nine-point scale (see Figure 1). The factors with the highest value within each group represented the group. In the second step, the four groups were brought forward for pair-wise comparison. Group consensus was followed by decision on different pairs of comparison. Throughout the comparison, the inconsistency ratio was kept below 0.1. Finally, data were analysed using the software Expert Choice (Pro version, see http://www.expertchoice.com). Field observations were coded and incorporated manually to interpret the results.

Findings and Discussions

The factor priority scores and the overall priority scores are shown in Table 3. The scores for strengths and opportunities indicate the positive, whereas the scores for weaknesses and threats indicate the negative of the two PV styles regarding their

Table 2. SWOT factors to assess the usefulness of the two styles of participatory video on local seed innovation system development.

Strengths

S1: Creates self-reliance
- Creates commitment and ownership among farmers about local seed development issues

S2: Capacity-building tool for farmers

S3: Participatory monitoring tool

S4: Dissemination of local innovative practices
- Sharing documented local knowledge, skills and capacities with other trigger change (reflection, learning and adoption)

S5: Helps in creating supportive network
- Ensuring flows of message horizontally and vertically among multiple actors creates network for policy lobbying and development

Opportunities

O1: Possibility to get learning alliance
- Interest of the actors working in information and communication technology (ICT) sector

O2: Cost-effective method to scaleout locally adaptive solutions
- Cost per client is reduced significantly, while the same film can be used again and again

O3: Government favourable policy for alternative energy and ICT

O4: Serves as a complementary tool to other participatory methods and tools

Weaknesses

W1: Initial investment (cost) is high

W2: Difficulty in replication (context specificity) of the process

W3: Limited availability of process facilitators

W4: Initially time-consuming

Threats

T1: Difficulty in institutionalization of video as a media of the marginalized
- Strong belief that video development process can be handled only by the literate

T2: Exploitation of clients (farmers)
- The film (output) may be used in favour of others
- For attracting development aid by facilitating actors
- The credit/ownership may go to professionals who produced the final film

T3: Limited infrastructure to use video as a capacity-building tool
- Limited availability of equipment to produce film and organise video-mediated learning sessions

T4: Less interest of research and development actors in intangible issues while monitoring

Source: Authors.

usefulness in enhancing local seed innovation systems. The priority scores for all factors sum up to 1, which means that the overall score of a factor can be interpreted as the weight of the general perceived usefulness of the respective style of PV. On the other hand, the factor priority score of a specific factor within each SWOT group can be interpreted as its relative contribution to the group concerned. For example, the overall priority scores of 0.454 and 0.282 for strengths and opportunities respectively perceived by the farmers for scripted video (Table 3, Column 6) indicate that the

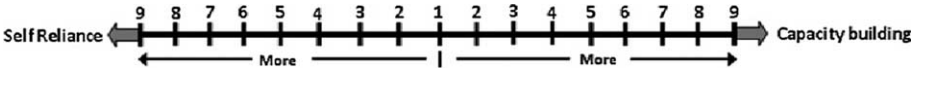

Figure 1. An example of pair-wise comparison between two strength factors. The respondents were asked to give his/her preference by assigning a weight (along 1–9 scale in either side of the factors) for the more important factor reflecting the magnitude of the importance.
Source: Authors.

Table 3. SWOT factors and their priority and overall priority scores as perceived by farmers and facilitators.

	Factor priority score				Overall priority score			
	Scripted video		Scriptless video		Scripted video		Scriptless video	
SWOT groups	FVT*	RT**	FVT	RT	FVT	RT	FVT	RT
Strengths:					**0.454**	**0.484**	**0.464**	**0.134**
S1: Self-reliance	0.063	0.059	0.275	0.244	0.029	0.029	0.128	0.033
S2: Capacity building	0.393	0.401	0.106	0.123	0.178	0.194	0.049	0.016
S3: Participatory monitoring tool	0.066	0.044	0.462	0.454	0.030	0.021	0.198	0.061
S4: Dissemination of local innovative practices	0.186	0.387	0.073	0.056	0.084	0.187	0.034	0.007
S5: Helps create supportive network	0.292	0.109	0.121	0.123	0.132	0.053	0.056	0.016
Weaknesses:					**0.164**	**0.068**	**0.154**	**0.153**
W1: Initial cost high	0.313	0.640	0.089	0.086	0.051	0.044	0.014	0.013
W2: Context specificity	0.067	0.078	0.596	0.471	0.011	0.005	0.092	0.072
W3: Limited availability of process facilitators	0.101	0.079	0.246	0.365	0.017	0.005	0.038	0.056
W4: Initially time consuming	0.519	0.202	0.069	0.078	0.085	0.014	0.001	0.012
Opportunities:					**0.282**	**0.325**	**0.117**	**0.218**
O1: Possibilities to build learning alliance	0.313	0.529	0.056	0.126	0.088	0.172	0.007	0.028
O2: Cost-effective method...	0.463	0.228	0.333	0.115	0.131	0.074	0.039	0.025
O3: Favourable policy...	0.152	0.180	0.188	0.115	0.043	0.058	0.022	0.034
O4: Complementary use...	0.071	0.063	0.422	0.604	0.020	0.020	0.049	0.132
Threats:					**0.100**	**0.123**	**0.265**	**0.495**
T1: Difficulties of institutionalization...	0.044	0.569	0.525	0.561	0.004	0.070	0.139	0.277
T2: Exploitation of clients	0.634	0.070	0.053	0.096	0.063	0.009	0.014	0.047
T3: Limited infrastructure...	0.114	0.232	0.151	0.069	0.011	0.029	0.040	0.034
T4: Less interest of R&D actors...	0.209	0.128	0.271	0.274	0.021	0.016	0.072	0.136

Notes: *FVT = Farmers' video team and participant farmers; **RT = Research facilitation team and PV experts.
Source: Authors.

strengths and opportunities of this PV style would account for 45% and 28% contributions to local seed innovation system development respectively.

The overall priority scores of the farmers and video facilitators for scripted PV are presented in Figures 2 and 3 respectively and their scores for scriptless PV in Figures 4 and 5 respectively. The lines in the top two quadrants indicate the relative values of the factors of strengths and opportunities, whereas the lines in the bottom two quadrants represent the relative values of the factors of weaknesses and threats. The line in each quadrant indicates the total value of the factors of

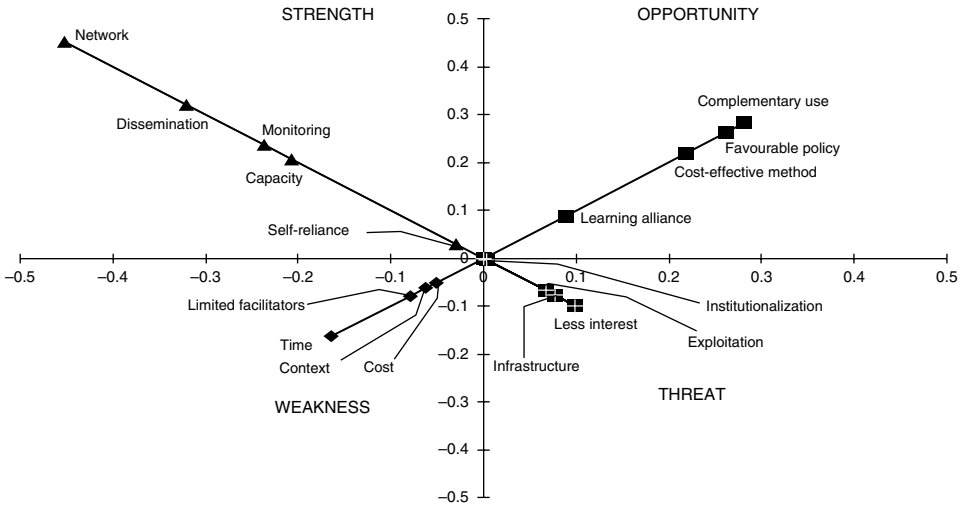

Figure 2. Graphical interpretation of the results of pair-wise comparisons of SWOT group and factors by the farmer and FVT in case of scripted video.
Source: Authors.

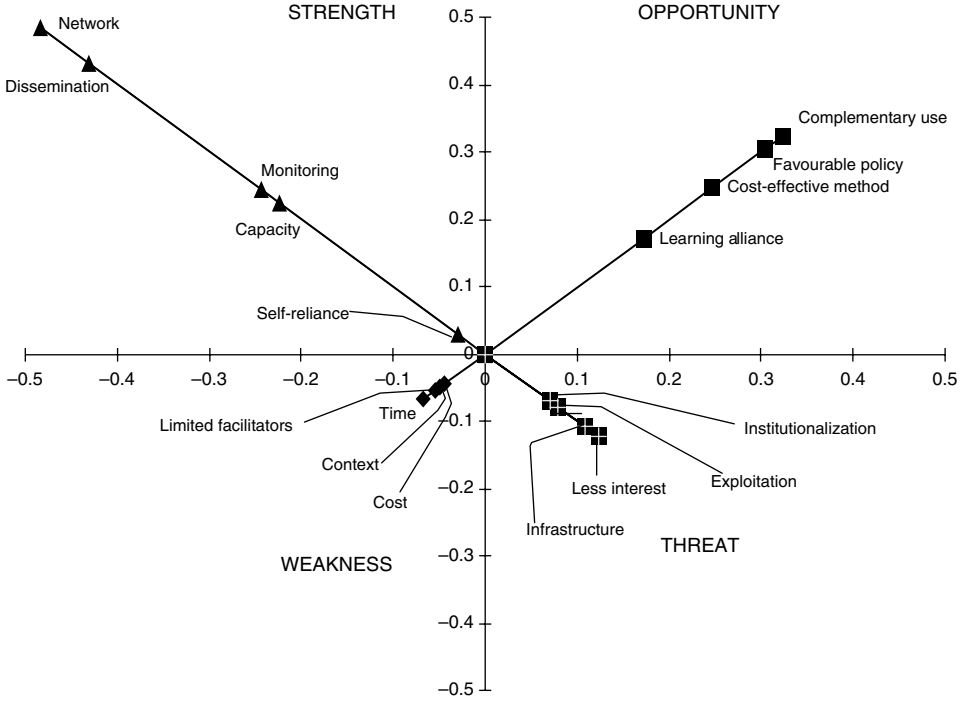

Figure 3. Graphical interpretation of the results of pair-wise comparisons of SWOT group and factors by the RT in case of scripted video.
Source: Authors.

each SWOT group and the points on each line show the value of each factor within the group.

1. Perceptions of the Usefulness of Scripted Video

Farmers and facilitators thought the positive factors of the scripted video outweighed the negative factors. Both farmers and facilitators perceived the capacity-building function as the major strength of the scripted style. Their underlying argument was that a script and professional handling of the camera helped document key messages by making use of the quality of visualization techniques. The outcome, i.e. the film, had potential uses for training and educating farmers.

The experience in video development activities indicates that the local techniques of eggplant seed production were better documented when the camera was handled by a professional. Professional handling of the camera and planning along the script facilitated visualization of the seed processing techniques. The script helped the RT to select appropriate fields, materials (mature and ripe fruit) and farmers to visualize the object and learning issues accurately. Without a script, important considerations such as specific maturity and harvesting periods in the given locality might otherwise be missed out, losing the quality of visualization.

When video professionals were involved and a script was used, the process of shooting appeared to accentuate the quality of the final film. Once when a female seed processor could not narrate the story in the expected language, the facilitator team replaced her by another female participant. This helped to tell the message vividly, but excluded the villager who was very eager to appear in front of the camera. Again, the farmers and the facilitation team widely differed in their views as to whether an expert should appear to explain a practice or not. The team coordinator of the RT created a strong hierarchy when he said, 'I think scientists can explain the practices better than farmers; therefore, involving them would make the story more appealing.' Another member of the RT expressed his fear that, without a script, the shooting would be unorganized, resulting in a poor-quality and useless film.

This indicates a strong goal for producing quality films. The use of a script and involvement of professionals could introduce and enforce a hierarchy during the participatory video production process. Only quality facilitation and mediation support can overcome the hierarchy by creating learning loops and incorporating different views.

The farmers perceived creation of supportive networks as the second most important strength of the scripted video, whereas the facilitators opted for dissemination of local practices (Figures 2 and 3). Indications of networking were observed during and after the film shows. The agricultural officer and two scientists of the regional agricultural research station were invited to a video show organized in the village. All of them appreciated the scripted video and promised to help the farmers to solve their seed and other crop farming problems through regular meetings in the village. The scientists were interested to set up potato seed multiplication plots with the farmers. Explaining how video helped in networking, a participating farmer recollected that the farmers had tried to convince the agriculture officer several times in the past to organize village meetings for solving their problems, but without success.

'Now', said he, 'the agriculture officer has realized our capacity'. He added that they would request him for further assistance.

Notably, the audience liked the scripted video, which created an interest among the farmers who had produced it. Furthermore, the farmers mentioned that, following shows and broadcast of the videos on cable TV, farmers from the neighbouring villages had requested them for further information about the eggplant seed production and processing practices. Said a participant farmer, 'this year I received more requests for my eggplant seed compared to last year'. This can be considered as the first step towards networking, which in turn might lead to developing a viable network for further skill- and knowledge-based assistance, including exchange of farmers' scientific knowledge and services involving their seed production practices.

The scores also revealed that the scripted video style offered several opportunities, among which farmers mentioned an opportunity to scale up the locally-adapted solutions cost effectively, while the RT perceived getting more actors interested about this style (Table 3, Columns 6 and 7). As for the farmers, it was difficult to obtain information on services from the few available extension agents, who, even when available, may not necessarily show interest to learn and spread local techniques due to their already high workload. Farmers who attended the video shows generally thought that they did not previously see initiatives to discuss local eggplant seed production and processing practices. A farmer said that, 'This was the first time we saw the practices of experienced farmers, and we think this will be suitable for smallholders.'

The local cable TV operator who broadcast the videos liked the scripted style and mentioned that it was more suitable than scriptless videos for broadcasting. This is in line with the perceptions of the video facilitators that more actors, especially from the information and communication technology (ICT) sector, would be interested in this video style because of the better quality of films. Rapid growth of private TV broadcasting channels and expansion of cable TV may be interesting avenues for films produced through this style. The RT also gave the second most importance to the scripted video as a cost-effective way to scale up local technologies.

Similar experiences in other contexts and cases of video development also support the findings of this study. For example, the 'educational' films produced through scripted video style elsewhere in Bangladesh and in West Africa have helped increase farmers' knowledge and skills about local rice seed technologies (Van Mele, 2008b, Van Mele et al., 2005, Van Mele, 2006). These studies indicate that video production and use in farmers' training and education also encouraged researchers to work on local sustainable technologies. In the research results presented here, the indication of goal orientation might be limiting for farmer participation in the participatory process, but it supports the argument that, in a broad multi-actor platform, it may not always be good to leave everything to farmers (Leeuwis and Van den Ban, 2004). According to Van Mele (2008b; 2006), local learning capacities can be scaled up to regional scale without leaving much responsibility for shooting and editing to farmers. However, Van Mele's earlier research did not look into the issue of farmers' networking (Van Mele et al., 2007). One can only claim that actor networks were developed while working with the video-facilitated change process. In other contexts,

video projects that adopted the scriptless style and handed over the camera to farmers claim to develop farmers' networking by ensuring both vertical and horizontal information flows (Huber, 1999).

Concerning the weaknesses of the compared styles of video production, farmers and video facilitators came to different conclusions (see Table 3). Farmers found that initial consultations for identifying the message, developing a script, subsequent on-station editing and validation before producing the final film were time consuming processes. The FVT members did not see time as such an important weakness. They placed more importance on the issue of financial costs for human resources, equipment and technical expertise at every stage of scripted video production.

Similarly, both teams differed in opinion about the importance of the threat factors. In the RT's perception, organizing video-mediated learning sessions with farmers was new for extension agents in Bangladesh. Its utility in enhancing local seed innovation systems was threatened if documented films were not used in training and educational events and were only 'showcased' on special occasions. But farmers saw a major threat in how the outcome of the process was used. Developing video according to a script and with professionals is not totally new for the farmers. Reportedly, some seed companies had previously shot videos to promote hybrid seeds with farmers' participation. Afterwards, the videos were used for business promotion without the knowledge and consent of the farmers. This is why some farmers were sceptical at the beginning of the scripted video-making, 'What will you do with this film? (. . .) Earlier, too, these kinds of films were produced; after the shooting, we did not see what had been done with the film.' A few farmers thought that this style of video-making was a good way to do business.

Such powerful statements imply a trust-based relationship that question not just who is operating the camcorder but also what his/her underlying intentions are. If these concerns are not clarified in the beginning, the processes and outcomes might not benefit local seed innovation systems.

This finding is distinct and contradictory to the experience of some rice seed videos produced in Bangladesh and West African countries, which showed a potential for trust-building and institutionalization by changing the outlook of the participating public and private sector partners to work towards local sustainable seed technologies (Van Mele, 2006). But this other study did not look into the use of video within the broader institutionalization processes in national research and extension systems or, more widely, the system of innovation in agriculture (Pant and Hambly Odame, 2007). Therefore, the issues of institutionalization and systemic change through the inclusion of media as a tool and as a group of partners as well as their varying styles of video production require further research. Another critique raised by the participants, especially farmers, is the cost and initial resources necessary for PV. The initial cost of PV may be comparable to the cost involved in genuinely conducted traditional participatory methods (e.g. participatory rural appraisal) if we consider the rapidly decreasing trend of video equipments (Braden, 1999). Research in Bangladesh underscored the value of the cost for locally made video using the ZIZO approach. According to Van Mele et al. (2007) the cost for a locally made video that captures local learning well, when used for farmer-to-farmer learning process, has come down to $0.38 per farmer trained. Nevertheless, since the farmers and the facilitators perceived the positive factors highly compared to the

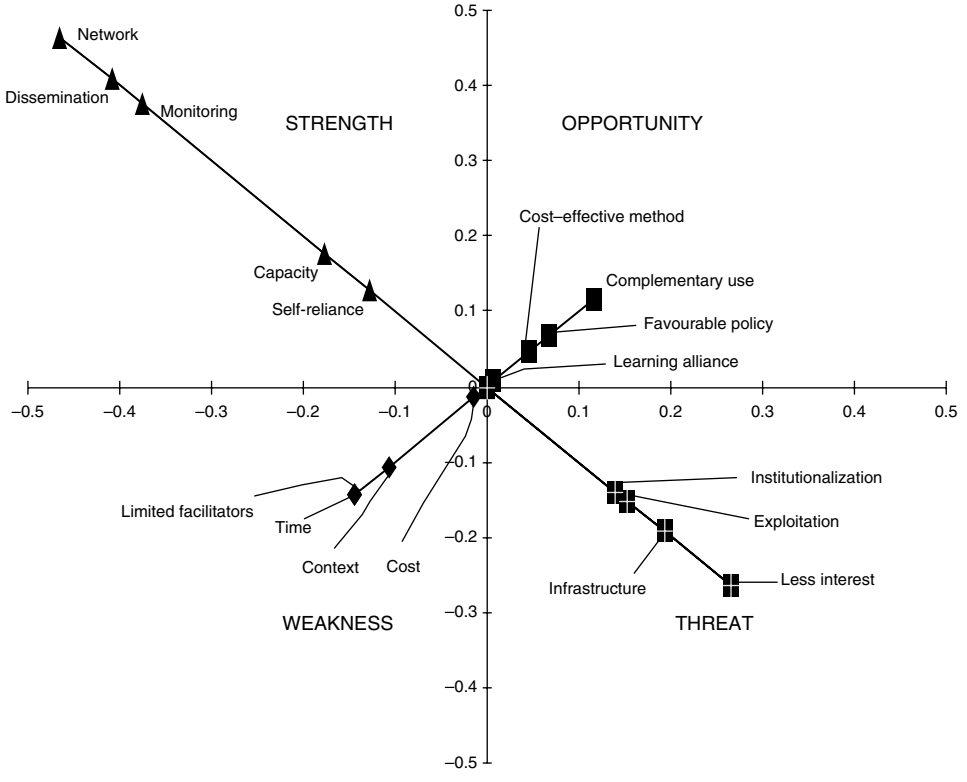

Figure 4. Graphical interpretation of the results of pair-wise comparisons of SWOT group and factors by the farmer and FVT in case of scriptless video.
Source: Authors.

negative factors, it can be inferred that the scripted style can be effectively used for enhancing local seed innovation systems.

2. Perceptions of the Usefulness of Scriptless Video

The farmers and the FVT perceived that the positive factors of the usefulness of scriptless videos outweighed the negative factors (Table 3, Figure 4). In contrast, the facilitators attached more weight to the negative factors than to the positive factors (Table 3, Figure 5). This indicates that there are critical considerations with regard to the scriptless video since both end-users and facilitators are important actors in harnessing the usefulness of the video-facilitated participatory process.

FVT and RT perceived that the strength of this style would account for about 46% and 13% respectively of its utility (Table 3, Columns 8 and 9). Both identified the participatory monitoring function of the scriptless video as a major strength. At the beginning of this research, farmers complained about the quality of market seeds, especially that of hybrids. They shot several stories on this issue. Initially, local seed dealers had ignored their complaints. Two seed dealers were invited to the video show in Chupinagar village and the film produced through the scriptless video process

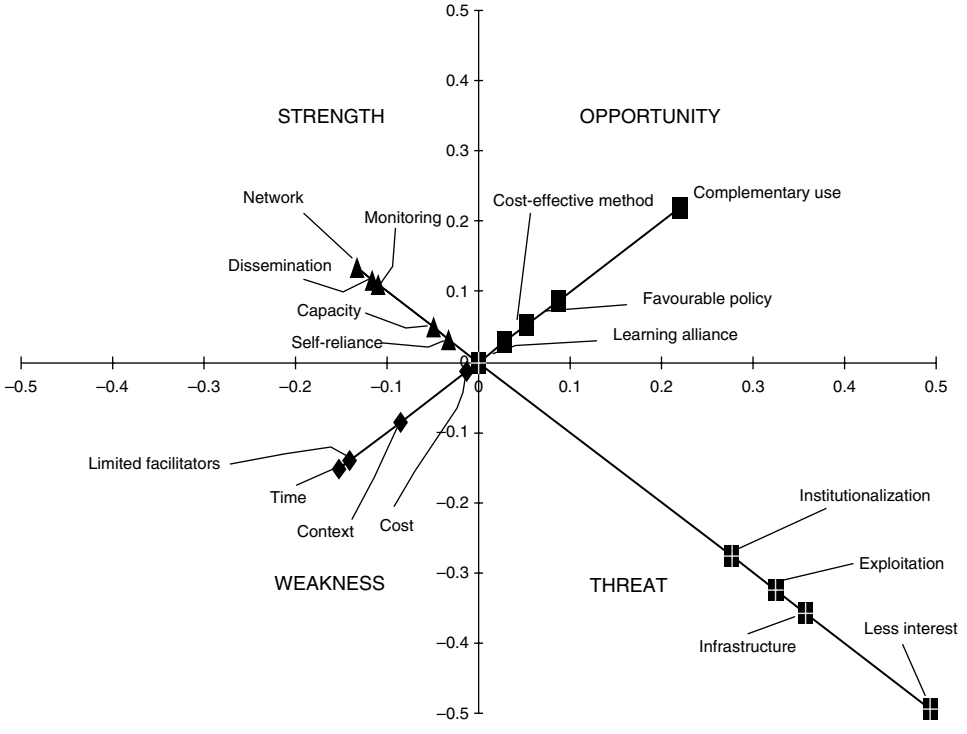

Figure 5. Graphical interpretation of the results of pair-wise comparisons of SWOT group and factors by the RT in case of scriptless video.
Source: Authors.

sparked serious discussions among the participants. The seed dealers finally agreed that there might be critical issues regarding the quality of seeds (e.g. expired seeds, improper packing), which were beyond their control.

This case demonstrates that visual reports helped raise multiple views by documenting and igniting discussions which might not have been achieved through other means of communication. Visual and verbal tools, when used together, have more strength to claim validity than verbal or written tools applied in isolation. It is necessary to disentangle these inconceivable issues, which might be a good starting point for negotiation. This is what the participatory monitoring function of scriptless videos can facilitate. A member of the RT inferred that this style of video helped to spot issues spontaneously and randomly, which might be overlooked while producing a film along the script. In his voice, 'this is a better style for monitoring. If we fix everything using a script, we might miss important issues in documentation'.

Another important strength factor, as perceived by the farmers and FVT, is development of self-reliance spirit (Figure 4). The villagers were sceptical while shooting according to a script. As mentioned earlier, the intention of the professionals handling the camera was questioned. But the farmers' enthusiasm was observed when the camera was handed over to them. For example, while

shooting according to the script, the RT once faced resistance from a village leader, who was concerned that the video activity had nothing to do with the development of the farmers. However, the following day, when shooting was carried out without script and the camera was handed over to the FVT, the same person showed appreciation, 'now it seems that this is for and by the farmers!'

The videos handled by the community appeared to create ownership of the process. It also created autonomy since most of the activities were directly handled by the farmers. A participant farmer explained his feeling,

> At the beginning, we were sceptical about our ability to handle this equipment; when we started shooting in the field, we realized that we could produce video (. . .) This is our video!

In most cases, women were keen to shoot stories on the post-harvest issues of seed, a homestead-related topic. After the video activities, a woman farmer said,

> We cannot read and write; since you showed how to operate the equipment, it was not difficult since it was a matter of pressing buttons and positioning the camera, not reading it. In the future, we can also shoot clips on other agricultural problems, even on the issues related to men working in the field.

There are other similar experiences elsewhere in the world, in rural Asia and Africa, of using video and building on visual literacy to promote problem-solving and empowerment (White, 2003; Lunch and Lunch, 2006; Witteveen, 2009). Such experiences document the value of video for enhancing self-sustaining dialogue within the community and beyond with key development policymakers and processes (Lie and Mandler, 2009; Snowden, 1998). Although such examples are not typically from the seed sector, comparing the findings of this study to this wider literature supports the potential of the PV style.

Both farmers and facilitators perceived the complementary function of the scriptless video when using it with other participatory tools and methods, e.g. participatory rural appraisal, participatory technology development, as the most important opportunity (Table 3, Columns 7 and 9). They thought that farmers would be more empowered when participatory sessions were documented following the scriptless style. The documented video can be a future frame of reference for participants and also clients across the geographical scale. Frost and Jones (1998) state that scriptless PV helps capture the context and dynamics of a participatory session, adding new flesh to it. But there is also the opinion that using a script and professional handling of the camera is useful to scale up co-learning issues of approaches like farmers' field schools (Van Mele, 2008b).

The RT was more sceptical than the FVT about the usefulness of the scriptless style (Figure 5). They stated that it would be more difficult to institutionalize this kind of style since most development actors may not be willing to hand over the camera to farmers. There is also a strong belief that illiterate farmers or farmers without enough technical knowledge cannot handle the camera. At the beginning of the video activities, three members of the RT were sceptical about the usefulness of this style. The team coordinator said:

> What we will do with this film? Who will watch it? (. . .) I never thought about training farmers to operate the camcorder. I am not totally against adopting scriptless conditions, but I would never think of making a film with unskilled hands.

Both FVT and RT mentioned that actors in agricultural research and extension might not be interested in video-documented change processes or video reports prepared by farmers. It might thus be challenging to harness the functions of scriptless PV as a participatory monitoring tool for bringing intangible issues to the fore. Like the facilitators, farmers thought that the final outcome would not be useful beyond the context (the particular village) (Figure 4). It may not be possible to replicate similar processes of the scriptless style elsewhere since each community has specific requirements (culture, tradition, expertise, etc.) for organizing video activities. The audiences attending the video show organized in other villages shared a similar opinion. Most of them stated that scripted video would be more useful in their context. They mentioned that the stories documented in the scriptless video were too subjective and did not fit their context (e.g. regarding issues of hybrid controversy, available extension services, etc.). Experts in video-facilitated farmer training approaches (Van Mele, 2006; CTA, 2006; Van Mele et al., 2005) highlight that, it may not be useful to hand over the camera and adopt a random structure in narrating the story for scaling up local learning about sustainable technologies at regional level.

Conclusion

The findings of this study underline the potential of the two PV styles to enhance local seed innovation systems. The analysis indicates that scripted video can be used for farmers' capacity-building through education and training events, networking and scaling out local knowledge and skills having regional relevance. On the other hand, scriptless video can be useful in monitoring local innovation systems, cultivating a self-sustaining spirit within the group by providing ownership and promoting visual literacy, and complementing other participatory processes and methods. However, more careful decision-making is necessary when choosing scriptless PV since farmers, facilitators and other development actors can diverge in their opinion about its usefulness. Farmers prefer scriptless video's inclusive nature, which captures multiple views on the subject more randomly. But some farmers, facilitators and communication experts can be sceptical of the scriptless video's random structure and subjectivity, which might not help produce good quality films. It would be better to use a script and professional hands for documenting rural learning issues having geographical relevance. But there is a risk of undermining the spirit of participation and ownership of the process. Hence, careful facilitation is necessary during planning, implementation and further utilization of the outcome of the scripted PV.

Both styles have specific usefulness and can be combined. For instance, the scriptless style can trigger creativity and cohesion among the actors who take part in participatory action and subsequently network, as in the case of the ZIZO

approach. Once key learning issues are identified the scripted style can be adopted to develop learning tools for training farmers and scaling out local seed innovations.

In this study, several examples were cited regarding the usefulness of the two styles of PV in enhancing local seed innovation systems and many general critiques or cautions were raised in relation to the use of video in agricultural extension and knowledge management. It was not within the scope of this paper to explore the specific topic, conditions or context for video-supported change processes in seed innovation systems and institutional arrangements. There is likely to be an interesting future ahead for research initiatives that will attempt to disentangle these issues.

Acknowledgements

The authors are grateful to the Austrian Agency for International Cooperation in Education and Research and the Austrian Development Corporation for the financial support through the North-South Dialogue (NSD) scholarship programme. The authors are grateful to Ann Waters-Bayer for her valuable comments and Lisa Aigelsperger for her editing support in the initial draft of the article.

References

Almekinders, C.J.M., Louwaars, N.P. & de Bruijn, G.H. (1994) Local Seed Systems and their Importance for an Improved Seed Supply in Developing Countries. *Euphytica*, 78, pp. 207–216.

Braden, S. (1999) Using Video for Research and Representation: Basic Human Needs and Critical Pedagogy. *Journal of Education Media*, 24(2), pp. 117–129.

CTA (2006) Film Making Farmers. *ICT Update: A Current Awareness Bulletin for African, Caribbean and Pacific (ACP) Agriculture*. Wageningen: CTA, pp. 34.

FAO (2006) Local Seed Systems and External Influences: A Case Study from the United Republic of Tanzania. *LinKS Project Report No. 52*. Rome: Food and Agriculture Organization.

Frost, N. & Jones, C. (1998) Video for Recording and Training in Participatory Development. *Development in Practice*, 8(1), pp. 90–94.

Huber, B. (1999) Communicative Aspects of Participatory Video Projects. Unpublished MSc Thesis, Swedish University of Agricultural Sciences, Uppsala, Sweden.

Johansson, L. & de Waal, D. (1997) Giving People a Voice Rather than a Message. *PLA Notes*, 1997(29), pp. 59–62.

Johansson, L., Knippel, V., de Waal, D. & Nyamachumbe, F. (1999) Questions and Answers about Participatory Video. *Forests, Trees and People Newsletter*, 40(41), pp. 35–40.

Kurtilla, M., Pesonen, M., Kangas, J. & Kajanus, M. (2000) Utilizing the Analytic Hierarchy Process (AHP) in SWOT Analysis—A Hybrid Method and its Application to a Forest-certification Case. *Forest Policy and Economics*, 1(2000), pp. 41–52.

Leeuwis, C. & Van den Ban, A. (2004) *Communication for Rural Innovation: Rethinking Agricultural Extension*. Oxford: Blackwell Science.

Lie, R. & Mandler, A. (2009) *Video in Development. Filming for Rural Change*. Wageningen: Technical Centre for Agricultural and Rural Cooperation (CTA) and Rome: Food and Agriculture Organization (FAO).

Lunch, C. (2004) Participatory Video: Rural People Document their Knowledge and Innovations. *IK Notes*, 71(August 2004).

Lunch, N. & Lunch, C. (2006) *Insights into Participatory Video: A Handbook for the Field*. UK: Insight.

Masozera, M.K., Alavalapati, J.R.R., Jacobson, S.K. & Shrestha, R.K. (2006) Assessing the Suitability of Community-based Management for the Nyungwe Forest Reserve, Rwanda. *Forest Policy and Economics*, 8(2006), pp. 206–216.

Pant, L.P. & Hambly Odame, H. (2007) Multi-stakeholder Deliberation on Dialectical Divides: An Operational Principle of the Systems of Innovation. *Knowledge Management for Development Journal*, 2(3), pp. 60–74.

Pant, L.P. & Hambly Odame, H. (2009) The Promise of Positive Deviants: Bridging Divides between Scientific Research and Local Practices in Smallholder Agriculture. *Knowledge Management for Development Journal*, 5(2), pp. 160–172.

Shaw, J. & Robertson, C. (1997) *Participatory Video: A Practical Approach to Using Video Creatively in Group Development Work*. London: Routledge.

Snowden, D. (1998) Eyes See, Eyes Hear. In: Richardson, D. and Paisley, L. (Eds), *The First Mile of Connectivity*. Rome: Food and Agriculture Organization.

Van Mele, P. (2006) Zooming-in Zooming-out: A Novel Method to Scale up Local Innovations and Sustainable Technologies. *International Journal of Agricultural Sustainability*, 4(2), pp. 131–142.

Van Mele, P. (2008a) Multiple Approaches to Enhance Communication between Rice Farmers, Rural Service Providers and Scientists. *Outlook on Pest Management*, 19(6), pp. 260–263.

Van Mele, P. (2008b) Zooming-in, Zooming-out. Developing Farmer-education Video to Scale Up Sustainable Technologies. *Rural Development News*, 1(2008), pp. 49–55.

Van Mele, P., Zakaria, A.K.M., Begum, H.A., Rashid, H.A. & Magor, N.P. (2007) Videos that Strengthen Rural Women's Capability to Innovate. *Communication for Development and Social Change*, 1(3), pp. 273–293.

Van Mele, P., Zakaria, A.K.M., Nasrin, R., Chakroborty, B., Haque, M.M. & Rodgers, J. (2005) Bringing Science to Life: Video Development for Women-to-Women Extension. In: Van Mele, P., Salahuddin, A. and Magor, N.P. (Eds), *Innovations in Rural Extension: Case Studies from Bangladesh*. Wallingford: CABI Publishing, pp. 49–60.

Wettasinha, C., Wongtschowski, M. & Waters-Bayer, A. (Eds). (2008) *Recognising Local Innovation: Experiences of PROLINNOVA Partners*. Silang, Cavite, The Philippines: IIRR/Leusden: PROLINNOVA International Secretariat, ETC EcoCulture.

White, A.S. (Ed.) (2003) *Participatory Video: Images that Transform and Empower*. New Delhi: Sage Publications.

White, S.A. & Patel, P.K. (1994) Participatory Message Making with Video: Revelations from Studies in India and the USA. In: White, S.A., Nair, K.S. and Ascroft, J. (Eds), *Participatory Communication: Working for Change and Development*. New Delhi: Sage Publications, pp. 356–386.

Witteveen, L. (2009) The Voice of the Visual: Visual Learning Strategies for Problem Analysis, Social Dialogue and Mediated Partnerships. Published PhD Thesis, Wageningen University, Wageningen, the Netherlands.

Witteveen, L., Enserink, B. & Lie, R. (2009) Mediated Participation: Using Filmed Narratives in Complex Multi-stakeholder Settings. *International Journal of Public Participation*, 3(1), pp. 32–62.