
Post Evaluation: Training of Livestock Officers in Bangladesh

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The survey reported the level of usage of short term training program on 'computer basics and database application' for Upazila Livestock Officer (ULO) in Bangladesh. A number of 40 individuals were selected randomly out of 175 trained officers. Data were collected during December 2010 – April 2011 through questionnaire and personal interview. Specifically information on usage of computer, personal skill ratings, and constraint faced by respondents in the usage of ICT equipment were gathered. The training was found beneficial and applicable irrespective of job-level of the participants. Findings revealed that a majority of the respondents (95%) perceived themselves as in using personal computer for their official works. The study concludes that the overall impact of the training was very high for all trainees, irrespective of their age and service experience. It should be posited that government at various levels should assist in training of officers on digital compatibility.

Keywords: Upazila Livestock Officer (ULO), Training impact, Computer basics and database application

Introduction

The world at present is undergoing a 'knowledge revolution' as a result of the 'information boom' that is being spearheaded by the rapid advancement in information technology through internet technology, directly using the personal computer. Expectedly, this has significantly changed the way people communicate, live, and conduct their daily business. More importantly, the revolution in communication has provided efficient ways for developing countries to grow economically and socially, as well as increase their agricultural productivity through information exchange between extension agents and farmers. According to Oladele (2010), knowledge and information are important factors in accelerating agricultural development by increasing agricultural production and improving marketing and distribution. Information communication technology (ICT) can enhance new communication pathways and reduce transaction costs, giving greater accessibility to information on fair prices, transportation, and production technologies.

The Department of Livestock Services (DLS) is one of the larger Government organizations in Bangladesh and provides challenging livestock services to farmers throughout the country. The DLS encourages and supports planning and implementation of all livestock related extension activities at the grass-root level and works in partnership with Government organizations, non-government organizations, and private sectors. The role of livestock sub-sector is vital for the economic development of agro-based Bangladesh. The contribution of livestock to National Gross Domestic Product (GDP) is 2.79 percent and which is 17.15 percent in Agricultural share (DLS, 2011). To provide high quality extension services, the DLS employs about 500 livestock officers at the field level (DLS, 2011). Due to lack of ICT skills and database application livestock officers were not able to provide satisfactory services to field level and communication properly and timely to the higher authority (Personal communication: Dr. MD. Shahidul Islam, Project Director, NATP, DLS, Bangladesh). Average knowledge on computer basics and database of all the livestock officers is not satisfactory.

Any programs provide high-quality employment and training services that address the needs of individuals in need of training, retraining,

and skill upgrades. Graduate Training Institute (GTI) of Bangladesh Agricultural University (BAU) began a training course on 'Computer Basic and Database Application' from November 2010 to February 2011. The training aims to change trainee's performance through improved knowledge, computer skills, and attitude. National Agricultural Technology Project (NATP), phase I conducted such training program at GTI for DLS officers of 120 Upazilas under the 25 districts of the country (DLS, 2010). To develop their computer basic and database application skill levels. For this objective, the NATP of DLS has invested huge resources for livestock officers for increasing the efficiency of the concerned fields. This study appraised the extent of use of ICT tools by ULO. Arokoyo et al. (2005) reported that agricultural extension depends, to a large extent, on information exchange between and among farmers on the one hand and a broad range of others on the other, the latter being identified as one area in which ICT could have a particularly significant effect.

The author argued that wider use of computer and database has the potential to open up communication and sharing of information across traditional and social boundaries and to assist previously excluded groups in participating fully, ensuring an increase in agricultural production. Exploiting the information provided by the internet will bridge the information gap between developed and underdeveloped economics. It was confirmed that use of ICT plays an important role not only the agricultural activities but also the related officers worked on this site. However, the big question is, 'Does this training program able to appraise the level of usage of computer and database application in the trainee's job'? To answer this question, this study sought to appraise the level of usage of computer basics and selected ICT tools by ULOs for dissemination of information to farmers and information sharing among them.

The main objective for investing resources in training is to eliminate performance deficiencies (Charles, 1990). To achieve this objective, the training organization must be concerned about the effectiveness of the training program (Ajayi, 2001; Davies, 1973; Salas et al., 2006). To achieve the aim of the study, two major objectives were set: a) to examine ULOs personal skill ratings on the usage of computer basics and ICT tools and b) to evaluate their level of access and usage of the selected

ICT tools. However, in spite of having immense importance of trainees' perceptions of trainings there are no published study on examining the changes in between the pre- and post-training activities. Thus, such an effort to identify the contributing perceptions of ULOs regarding ICT would facilitate in decision making for training program as well as policy makers to revise such kind of training program for officers to develop their skills. Therefore, the main aim of the study was to identify the contributing perceptions of ULOs regarding ICT for their skill levels.

Materials and Methods

The study was carried out in forty (40) randomly selected Upazilas in Bangladesh. The study population consisted of all government livestock officer in different 40 Upazilas. This representative sample of trained population was selected from 175 trained ULOs. This survey was conducted just after complete the training program. An exploratory survey was done to achieve a common understanding of computer, usage of computer after training program and overall ICT-related tools. A structured questionnaire was employed to elicit information from the randomly selected ULOs. The final part of the questionnaire consisted of seven statements as perceptions measured by a five-point Likert scale; for each statement there were 5 response categories, namely 'extremely agree', 'almost agree', 'moderately agree', 'disagree', and 'extremely disagree' and the scoring was done by assessing 5,4,3,2, and 1 points respectively. A pilot-test with 10 ULOs was conducted in the study area before the complete study and accordingly minor changes were made in questionnaire. Questionnaire reliability was measured (based on the pilot-test) by calculating Cronbach's Alpha. Reliability coefficient of 0.89 for the questionnaire was achieved.

Primary data were analyzed with the usage of both descriptive and inferential statistics; specifically, simple frequency, percentage, mean score, and Pearson correlation co-efficient were utilized. Independent variables were the ULOs' personal demographic and socio-economic characteristics, while the independent variables were the personal skill ratings on the extent of their usage of computer and ICT tools for livestock information dissemination. Variables for the analysis were Computer Proficiency (CP = 1

if respondent can use; otherwise = 0), Computer Training (CT = 1 if respondent owns a computer; otherwise = 0), and Access to Computer (AC = 1 if respondent has access; otherwise = 0). Skill ratings (competency levels) were determined by the ability of the trainees to search the information and make a database based on specific topic and to disseminate it using computer packages such as PowerPoint, Microsoft Word, and the Internet: possessed ability to use = 1; inability to use = 0.

Results and Discussions

The study revealed that ULOs possessed a very low technical competency on computer basic and database application. They are also showed very extremely low technical knowledge on ICT tools and their usages for livestock information dissemination. However, the findings of the study were enlisted systematically:

- Characteristics of Upazila Livestock Officers (ULOs)

A higher proportion of the trainees were between 48 and 57 years of age (69%) with an average 51.75 years. There was no respondent whose service tenure was less than 15 years. Only eight percent studied population had PhD degree and rest ninety two percent of the trainees had Bachelor of Science degree and Masters Degree with relevant field.

- ULOs' perceptions of computer training and their skill levels

The data in table 1 represents the comparison of perceptions of ULOs' regarding their computer skill and skill levels in between the pre- and post-training activities. It was also represented the demand based perceptions of training program, where considering all of the four condition skill level did not differ in terms of awareness of the perceptions related to objectives, merits and demerits of training. Thus it could be concluded that the absence of statistically significant differences in the perceptions of computer skills and database application among the trainees indicate that perceptions of the program have not been a contributing factor to ULOs' skill levels. The similar findings suggested for farmer's training on their skill levels for livestock management (Yilmaz and Akbas, 2010).

- Competency levels of ULOs with ICT tools

Table 2 reveals that a majority of trainees (95%) showed their ability to use of personal computer and no one respondent showed their inability to use of computer. But rest 5% trainees had less confident on their ability just after the completion of training program. Training for use of personal computer and multimedia projector suggested almost the entire trainee group. During using ICT tools less frighten occurred regarding computer using among the target group.

This would be more helpful for the trainee as well as working speed/spirit among the DLS staff. This kind of survey was reported by Eneh (2010) where training recommended for entrepreneurs to enable them keep afloat in the ailing Nigerian economy. The training program was effective to increase the competency levels of ULOs with use of computer and other ICT tools. Although effective training can prevent the lack of skill from impeding potential effectiveness gains from decision technologies (Yi and Davis, 2001).

Table 1: Perceptions mean score of training by computer skills and skill levels

Perceptions	Computer skills and skill levels (Mean)			
	Group	Organizational	Personal	Field
Training enables ULOs to use	4.05	3.84	3.74	3.61
Training provides ULOs with	2.64	4.21	3.93	2.50
Satisfaction on training	2.30	1.30	1.12	0.56
Training programs facilitate	3.84	2.58	4.92	2.64
Training enables ULOs on	3.48	3.72	3.68	1.62
Participation opportunities	3.64	1.52	1.34	2.98
Trainee's need-based practices	4.86	3.20	2.94	2.06

Table 2: The competency levels of trained ULOs with ICT tools

Item	Usefulness frequency (%)		
	Personal	Multimedia	Internet
Easy to use	38 (95.0)	21 (52.5)	31 (77.5)
Trained to use	40 (100)	40 (100)	24 (60.0)
Can manipulate	25 (62.5)	11 (27.5)	8 (20.0)
Not able to use	0 (0)	12 (30.0)	8 (20.0)

Not able to	7 (17.5)	25 (62.5)	24 (60.0)
Technical and	14 (35.0)	14 (35.0)	10 (25.0)
Sourcing	30 (75.0)	6 (15.0)	21 (52.5)

- Access to ICT tools

About 77.5% of the trainees, in one way or another, perceived themselves as frequent users of the internet facilities and 52.5% users of multimedia projectors; although, in most cases, not for livestock information dissemination. Interestingly, all the trained ULOs reported having a personal computer and using it (table 3)

Table 3: Trainees access to ICT tools

	Frequency (%)			
	Personal	Internet	Mobile	Multimedia
Yes	40 (100)	31 (77.5)	36 (90.0)	21 (52.5)
No	0 (0)	9 (22.5)	4 (10.0)	19 (47.5)

When probed further about constraints on use of ICT tools, they reported challenges such as power outages, cost and inadequate training on the usage of the computer, especially between and ULOs and their clientele. Such kind of critical reviews reported by Hati and Das (2011). In addition, findings revealed that mobile phones and computer systems are the most used and widely owned by ULOs and their organizations. Further statistical analysis shows a strong correlation between ownership (access to use) and usage of computer systems; internet and phones (table 4).

From the obtained results, the duration of training courses were discussed during interviewing with few trainees. They also suggested prolonging the duration of the course and also request to enhance the practice time during training. The topics and schedule programs of a training fully depends on the target groups and their preferences. Rong-Chang et al. (2009) and Salas et al. (2006) found the similar comments from their investigation among the trained employees. About 50% of the total population reported that no skills on internet use and database application during their oral interviewing. This report identifies the training

requirement for ULOs to work properly with more satisfaction. Such kind of report investigated for Doctors training conducted by Devitt and Murphy (2004). This kind of training also play role in the development of office personnel in a complete form, addressed similar findings by Swezey and Pearlstein (2007).

Table 4: Pearson correlation between availability (access and ownership) and use of ICT tools by ULOs

Variables (No. of responses)	<i>df</i>	Value
40	39	0.092

Conclusions

The impact of computer basic and database application training program is expected to bridge the gap between the computer illiteracy of officers and in the acquisition and dissemination of livestock information from bottom to top levels. Overall, there were large differences among the ULOs in their skill levels before and after the training program. ULOs' perception of 'using of computer' is helpful to form new skills mostly important contributed to the skill levels on working with group, organization works, personal and field works. This clearly indicates that developing skill levels on computer basics and database application training able to level up their skill levels.

Both medium-aged and senior livestock officers have basic computer literacy after the training program, but nearly half of the studied population identifies the use of database application as necessary tools for their job duties. In addition, there are several topics of which a large proportion of ULOs, particularly the medium aged, have little knowledge, but which have not been identified as training needs. Some recommendations are made for provision of such program for all DLS officers.

Based on the findings of this study, it could be concluded that, differences of ULOs' computer skill levels are mostly depends on their perceptions of training program and post practices. Besides, practice of

post-training at different service places with an opportunity to work at the real workplace could be helpful to develop most of the computer skills of ULOs. Thus, NATP should review the existing trainings along with developing a better training system in accordance to the readiness of all DLS officer in future. The author suggests training and retraining of ULOs on ICT tools to bridge the digital gap, thereby enhancing the capability of the ULOs to utilize computer in this 21st century as a helpful tool for food security.

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