

Block Supervisors' Perception of On-the-Job Training in Bangladesh: A Case of Four *Upazilas* in Kishoreganj District

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Abstract: This study was carried out to describe the perception of Block Supervisors (BSs) of On-the-Job Training (OJT). Four out of 13 *upazilas* (sub-district) in Kishoreganj district were selected randomly. In the selected *upazilas*, 111 BSs posted in different blocks those were the sample for the study. A set of questionnaires was used for collecting data through personal interview during a period from July to August, 2004. Findings indicated that 41% of the BSs had a slightly favorable perception of OJT, while 37% had a highly favorable perception of OJT. Discriminant analysis indicated that two statements, such as "OJT could minimize the likelihood of making the same mistakes while serving farmers" and "OJT permits periodic transfer from one *upazila* or district to another *upazila* or district, which could be helpful to form their new skills" were placed the BSs in the group of highly favorable perception of OJT. Implications of these results are given and recommendations are made.

Key words: Block supervisors, discriminant analysis, perception, on-the-Job training, skill development, Bangladesh

INTRODUCTION

The Department of Agricultural Extension (DAE) is the main organization responsible for conducting extension activities in rural areas in Bangladesh. The Block Supervisors (BSs) are the grass root level extension workers of the DAE responsible for ensuring agricultural extension services to the farmers. The success or failure of these extension services largely depends on the capabilities of the BSs. Now a days, BSs are strongly expected not only to diffuse new technologies but also to facilitate the capacity building of farmers and rural communities in the trend of privatization of input and output distribution along with the reduction of subsidy. The latter is an objective itself of the extension work by the government of Bangladesh. The goal of the new agricultural extension policy (July 1995 to June 2010) also made strong look on encouraging the various partners and agencies within the national agricultural extension system to provide efficient and effective services which complement and reinforce each other, in an effort to increase the efficiency and productivity of agriculture in Bangladesh. To achieve this goal the policy included the training of Bss as a fundamental feature of the

extension approach. The DAE training policy (2002-2003) also focused BSs for sufficient training so that they could have the capacity to assist farmers, solve their agricultural problems and promote the DAE policies, particularly those concerned with partnership among extension service providers. Thus to develop the BSs' capacity the DAE organizes a variety of Off-the-Job Training (Off-JT) in every year. For that reason the DAE has invested huge resources for Off-JT provided by the government of Bangladesh as well as international organizations or donors over the years. In accordance to the Annual Training Plan (2002-2003) of the DAE the training cost per BS was about 5000 taka (US \$ 71). But, theoretically, few farmers were beyond the influence of the extension service^[1]. On the other hand, 35% of farm information loss has been found to take place in the transit between BSs and farmers although BSs attend the Off-JT regularly^[2]. Currently, the DAE does not have the sufficient resources to provide Off-JT to develop the necessary skills of BSs. Fund shortage is becoming a big constraint due to decreasing the foreign investment. In addition, Off-JT is often not the most effective or cost effective way to increase the BSs' skills on extension service, as it is completely class-oriented

training. So, it is clear that demand for quality skills of BSs are increasing day by day for betterment of extension services, while investments for training to ensure quality skills of BSs are decreasing day by day. Thus, in order to maintain quality skills of BSs and to maximize the use of limited resources of DAE, a large number of training programs have been planned for which no fund is required. On-the-Job Training (OJT) is one of the training program for which no fund is required. Now a days all the BSs are encouraged to develop their own abilities through practicing OJT along with attending Off-JT. Although the DAE has introduced OJT recently but there are no specific structures and instructions of OJT that could help BSs to practice it effectively as well perfectly. BS's understandings about the OJT are the prerequisite to adopt this new concept of training for their skills development.

Since it is said that skills could be fully developed through proper combination of OJT and Off-JT^[3], how could the BSs perceive OJT to develop their skills? Are they consciously ready to undertake the OJT to positively form or develop their necessary skills to fulfill the current needs of farmers? Unless BSs have favorable perception of OJT, it would be very difficult to increase the extents of practicing OJT in the field. Thus, the primary purpose of this study is to clarify how BSs consciously perceive the OJT to positively form or develop their necessary skills to fulfill the current needs of farmers. The objectives of the study are as follows:

- To describe the BSs' perception of OJT.
- To identify the crucial statements to BSs' perception of OJT.

MATERIALS AND METHODS

Kishoreganj district was selected as the locale of the study. Out of 13 *upazilas* in Kishoreganj district 4 *upazilas* were selected randomly. In total 236 BSs were working in different blocks of Kishoreganj district during the study, which constituted the population. In the selected *upazilas*, 111 BSs posted in different blocks those were purposively selected as a sample for the study. However, data were collected personally using a set of questionnaires from 102 BSs who were available during the data collection. Questionnaire reliability was estimated (based on pre-test) by calculating Cronbach's alpha. Reliability for the overall instruments was 68%.

Age, level of education and service tenure of the BSs were measured by using the unit of years. The perception of BSs was measured by using 4- point Likert scale, with 16 respective statements. These 16 statements were made

based on several studies^[3,9]. Weights were assigned like 4 for "strongly agree", 3 for "agree", 2 for disagree and 1 for strongly disagree. Weights on the responses to all the 16 statements of a BS were added together to obtain his or her perception score. Thus, the perception score of a BS could range from 16 to 64, where 16 indicating unfavorable perception and 64 indicating highly favorable perception towards OJT.

Discriminant analysis was conducted to identify the statements differentiating the BSs with highly favorable perception of OJT (perception score: 50-64) and BSs with slightly favorable perception of OJT (perception score: 38-49). Sixteen statements used for measuring BSs' perception of OJT were considered as the explanatory variables for discriminant analysis. Roughly speaking, these 16 statements could be grouped into two categories such as i) Practical Steps of OJT: First 4 statements belonging to this group were related to the activities of performing OJT perfectly and ii) Merits of OJT: The rest 12 statements belonging to this group were related to the advantages of OJT for developing BSs' skills. The following form of linear discriminant function was used:

$$D = d_1X_1 + d_2X_2 + d_3X_3 + d_4X_4 + d_5X_5 + d_6X_6 + d_7X_7 + d_8X_8 + d_9X_9 + d_{10}X_{10} + d_{11}X_{11} + d_{12}X_{12} + d_{13}X_{13} + d_{14}X_{14} + d_{15}X_{15} + d_{16}X_{16}$$

Where, D = Individual discriminant score of a BS,
 d_1, \dots, d_{16} = Canonical coefficients of the linear discriminant function.

Practical steps of OJT:

X₁: OJT involves an orderly period of instruction.

X₂: The trainee performs the jobs without the instructors' supervision and brings the finished work to the instructor for comments.

X₃: The trainee performs the task virtually independently, only seeking the instructors' assistance when questions arise.

X₄: The trainee moves on to a slightly more difficult task that is closely related to the earlier one.

Merits of OJT:

X₅: OJT could minimize the likelihood of making the same mistake while servicing the farmers.

X₆: OJT could ensure BSs' skills on managing daily activities by their own efforts.

X₇: OJT could ensure an improvement of BSs' knowledge and skills continually.

X₈: OJT could help to identify the limitations of BSs on service delivery to the farmers.

X₉: OJT could create a true workplace-learning environment, which could help BSs to solve farmers' problems successfully.

- X₁₀: OJT could be more cost-effective than Off-JT as it requires less time and money to improve the BSs' skills.
- X₁₁: OJT could provide opportunities to form skills through working at or near the actual work setting condition where BSs and instructor could work together.
- X₁₂: OJT permits periodic transfer of BSs from one *upazila* or district to another, which could be helpful to form their new skills.
- X₁₃: Changing service delivery places (In the same *upazila*) could be helpful to form new skills.
- X₁₄: OJT could enable BSs to prepare local extension programs successfully without seeking the officers' assistance.
- X₁₅: OJT could enable BSs to improve their skills by own efforts without joining Off-JT session repeatedly.
- X₁₆: Lack of OJT makes BSs dependent on class oriented training for improving their skills.

RESULTS AND DISCUSSION

The profile of the BSs is presented in Table 1. Data indicate that majority of the BSs (95%) were middle-aged to old aged group. The highest proportion of BSs (53%) had long service tenure, however, 44% of BSs held short service tenure. The majority of the BSs (84%) had intermediate level education (SSC to HSC) while only 16% held higher education (Bsc).

Distribution of the block supervisors according to their perception of On-the-Job Training (OJT): The distribution of the BSs according to their perception scores has been presented in Table 2. The perception score of the BSs ranged from 38 to 64 (against the possible range of 16 to 64) with average score of 49.59 and standard deviation of 5.05. More than half of the BSs (59%) had moderately favorable to highly favorable perception of OJT. However, nearly half of the BSs (41%)

held slightly favorable perception of OJT. It is interesting to mention that there was nearly equal proportion of BSs having slightly favorable perception (41%) and highly favorable perception (37%) of OJT. Thus, it can be concluded that due to some difficulties in practicing OJT, about half of the BSs showed slightly favorable perception towards OJT.

Extents of block supervisors' perception of On-the-Job Training (OJT): The extents of BSs' perception of OJT have been presented in Table 3. BSs held favorable perception to the practical steps of OJT as the mean value of the four relevant statements ranged from 3.27 to 3.41 with a mode of 4 or 3. On the other hand, BSs held slightly favorable perception to favorable perception to the merits of OJT as the mean value of the twelve relevant statements ranged from 2.38 to 3.51 with a mode of 4 or 1. Especially the five statements such as OJT permits periodic transfer of BSs from one *upazila* or district to another, which could be helpful to form their new skills (X₁₂), Changing service delivery places (In the same *upazila*) could be helpful to form new skills (X₁₃), OJT could enable BSs to prepare local extension programs successfully without seeking the officers' assistance (X₁₄), OJT could enable BSs to improve their skills by own efforts without joining Off-JT session repeatedly (X₁₅) and Lack of OJT makes BSs dependent on class oriented training for improving their skills (X₁₆) held comparatively low mean (2.38 to 2.86) with a mode of 3 or 1. Thus, it could be concluded that, although BSs held favorable perception towards the practical steps of OJT, their lack of favorable perception towards the merits of OJT, they could not properly utilize the OJT to develop their skills.

Identify the crucial statements to bss' perception of On-the-Job Training (OJT): Discriminant analysis was used to determine if a linear combination of the sixteen

Table 1: Characteristics' profile of the block supervisors (Bss)

Selected characteristics	Expected range	Observed range	Category of BSs	No. of BSs	% of BSs	Mean	SD
Age (Years)	-	34-54	Young (up to 35)	5	5	43.87	5.26
			Middle (36 - 45)	53	52		
			Old (46 and above)	44	43		
Service tenure (Years)	-	10-33	Short (up to 16)	45	44	22.41	5.13
			Moderate (17 - 23)	3	3		
			Long (24 and above)	54	53		
Education (Years)	-	10-14	SSC+Agril. Diploma	39	38	11.55	1.41
			HSC+Agril. Diploma	47	46		
			BSc+Agril. Diploma	16	16		

Source: Based on Authors' Survey and Analysis (2004)

Table 2: Distribution of the BSs according to their perception of OJT

Categories of the BSs	No. of BSs	% of BSs	Expected range	Observed range	Mean	SD
Slightly favorable perception (range: 38-48)	42	41	16-64	38-64	49.59	5.05
Moderately favorable perception (range: 49-50)	22	22				
Highly favorable perception (range: above 51)	38	37				

Source: Based on Authors' Survey and Analysis (2004)

Table 3: Extents of Block Supervisors' Perception of OJT

Statements	Mean	Mode
Practical steps of OJT		
OJT involves an orderly period of instruction.	3.41 (0.680)	4
The trainee performs the jobs without the instructors' supervision and brings the finished work to the instructor for comments.	3.24 (0.692)	3
The trainee performs the task virtually independently, only seeking the instructors' assistance when question arise.	3.52 (0.685)	4
The trainee moves on to a slightly more difficult task that is closely related to the earlier one.	3.27 (0.692)	3
Merits of OJT		
OJT could minimize the likelihood of making the same mistake while servicing the farmers.	3.51 (0.641)	4
OJT could ensure BSs' skills on managing daily activities by their own efforts.	3.37 (0.702)	4
OJT could ensure an improvement of BSs' knowledge and skills continually.	3.50 (0.686)	4
OJT could help to identify the limitations of BSs on service delivery to the farmers.	3.28 (0.651)	3
OJT could create a true workplace-learning environment, which could help BSs to solve farmers' problems successfully.	3.37 (0.807)	4
OJT could be more cost-effective than Off-JT as it requires less time and money to improve the BSs' skills.	3.30 (0.630)	3
OJT could provide opportunities to form skills through working at or near the actual work setting condition where BSs and instructor could work together.	3.29 (0.630)	3
OJT permits periodic transfer of BSs from one upazila or distict to another, which could be helpful to form their new skills	2.38 (1.117)	1
Changing service delivery places (In the same upazila) could be helpful to form new skills.	2.54 (0.982)	3
OJT could enable BSs to prepare local extension programs successfully without seeking the officers' assistance.	2.86 (0.912)	3
OJT could enable BSs to improve their skills by own efforts without joining Off-JT session repeatedly.	2.79 (0.958)	3
Lack of OJT makes BSs dependent on class oriented training for improving their skills.	2.51 (0.952)	3

Source: Based on Authors' Survey (2004). The figure in the parenthesis is standard deviation. Means were calculated on the basis of scores measured by a four point Likert scale. For mode, 4 means "Strongly agree", 3 "Agree", 2 "Disagree" and 1 "Strongly disagree"

Table 4: Summary of data from the discriminant analysis procedure, identifying Crucial Statements of BSs Perception of OJT

Statements	b	s		
Practical Steps of OJT				
OJT involves an orderly period of instruction.	+0.039	0.175		
The trainee performs the jobs without the instructors' supervision and brings the finished work to the instructor for comments.	+0.084	0.275		
The trainee performs the task virtually independently, only seeking the instructors' assistance when question arise.	+0.274	0.422		
The trainee moves on to a slightly more difficult task that is closely related to the earlier one.	0.219	0.342		
Merits of OJT				
OJT could minimize the likelihood of making the same mistake while servicing the farmers.	0.398	0.399		
OJT could ensure BSs' skills on managing daily activities by their own efforts.	0.268	0.283		
OJT could ensure an improvement of BSs' knowledge and skills continually.	0.164	0.318		
OJT could help to identify the limitations of BSs on service delivery to the farmers.	0.254	0.315		
OJT could create a true workplace-learning environment, which could help BSs to solve farmers' problems successfully.	0.137	0.296		
OJT could be more cost-effective than Off-JT as it requires less time and money to improve the BSs' skills.	-0.013	-0.274		
OJT could provide opportunities to form skills through working at or near the actual work setting condition where BSs and instructor could work together.	0.205	0.300		
OJT permits periodic transfer of BSs from one upazila or distict to another, which could be helpful to form their new skills.	0.405	0.394		
Changing service delivery places (In the same upazila) could be helpful to form new skills.	0.189	0.219		
OJT could enable BSs to prepare local extension programs successfully without seeking the officers' assistance.	0.078	0.180		
OJT could enable BSs to improve their skills by own efforts without joining Off-JT session repeatedly.	0.254	0.177		
Lack of OJT makes BSs dependent on class oriented training for improving their skills.	0.216	0.256		
Group Centroids	Eigenvalue	R _c Wilks'	Lambda	p
BSs with highly favorable perception 1.102	1.101	0.52	0.48	< 0.10
BSs with slightly favorable perception -0.980				

Source: Based on Authors' Survey and Analysis (2004) b = standardized canonical discriminant function coefficient s = within-groups structure coefficient R_c = canonical correlation coefficient

significantly correlated statements could be used to identify crucial statements for BSs perception of OJT. All of the studies (102) were used in the discriminant analysis. Of these, 54 belonged to the BSs' group with highly favorable perception of OJT and 48 to the BSs' group with slightly favorable perception of OJT. The mean discriminant score (centroid) for BSs with highly favorable

perception of OJT (1.102) was significantly different from the mean discriminant score for BSs with slightly favorable perception of OJT (-0.980) (Wilks' Lambda = 0.48, Chi-square (14 df) = 68.32, p<0.10). The analysis resulted in an eigenvalue of 1.101 and a canonical correlation of 0.52. The most distinguishing characteristics of BSs with highly favorable perception of

OJT, when compared with BSs with slightly favorable perception of OJT, can be determined by examining the standardized discriminant function coefficients Table 4.

The statements “OJT permits periodic transfer of BSs from one *upazila* or district to another, which could be helpful to form their new skills” (X_{12} , Merits of OJT) and “OJT could minimize the likelihood of making the same mistakes while servicing the farmer” (X_5 , Merits of OJT) were placed the BSs in the group of highly favorable perception of OJT. This was followed by the statements “The trainee performs the task virtually independently, only seeking the instructors’ assistance when question arise” (X_3 , Practical steps of OJT) and “OJT should ensure the skills of BSs on managing daily activities by their own efforts” (X_6 , Merits of OJT). On the other hand, “OJT can be more cost-effective than Off-JT as it requires less time and money to improve the skills of BSs” (X_{10} , Merits of OJT) placed BSs in the group of slightly favorable perception of OJT as it showed negative coefficient.

The discriminant function resulted in an overall correct classification rate of 88.7%. BSs with highly favorable perception of OJT were correctly classified 87.5% of the time whereas BSs with slightly favorable perception of OJT were correctly classified 88.9% of the time.

CONCLUSION

The main challenge for extension organizations in Bangladesh has been to provide the most cost-effective services to farmers. In this respect, to maximize the use of the DAE limited resources, a large number of training program have been planned for which no fund is required. As a part of this new training program, On-the-Job training (OJT) has been introduced in the recent years. But, the findings indicate that still all of the BSs are not consciously ready to undertake OJT as a way for developing their skills as 41% of BSs had a slightly favorable perception of OJT. Findings of the discriminant analysis indicates that, lack of BSs’ knowledge about importance of OJT for minimizing same mistakes while servicing to the farmers and how to gain more experiences from their transfer to different working areas placed the BSs in the group of highly favorable perception of OJT.

These findings have great implications for practicing OJT by all categories of BSs as a means of effective way to develop their skills. Through providing this knowledge to the BSs who have slightly favorable perception of OJT,

it could be possible to turn their unfavorable perception about merits of OJT to favorable condition for consciously undertake OJT as an effective way to develop their skills on providing need-based extension services to the farmers. In that study, after ensuring BSs’ favorable perception of OJT, the DAE could make a better-organized training structure giving due emphasis not only on Off-JT but also on OJT. For doing this, the DAE should consider Off-JT as a node in the career of BSs’ skill development and should consider OJT as an effective way to use the knowledge gained from Off-JT in the field level.

REFERENCES

1. Reyna, R. and T. Bruening, 1996. Agricultural extension issues: Perception of Bangladesh T and V extension personnel. *J. Intl. Agric. and Extension Edu.*, 3: 53-62.
2. Babu, A.R. and B.P. Sinha, 1979. Information gap between extension personnel and farmers with regards to modern rice technology. *Indian J. Extension Edu.*, 15: 52-60.
3. Koike, K. and T. Inoki, 1990. Skill formation in Japan and Southeast Asia. University of Tokyo Press.
4. Jacob, M., 1962. On-the-Job Training: Costs, returns and some Applications. *J. Political Economy*, pp: 10-5.
5. Jacobs, R., M. Jones and S. Neil, 1992. A case study in forecasting the financial benefits of unstructured and structured on-the-job training. *Human Resource Development Quarterly*, 3: 133-139.
6. Clark, T., 1991. Getting to grips with on-the-job training. Leabrook, Australia: TAFE National Center for Research and Development.
7. James, H.L., 1997. The role of structured On-the-Job Training (OJT) in the workplace. An M.Sc.thesis, The graduate school of program of workforce education and development, The Pennsylvania State University, USA.
8. Susan, J.G., S. Rick and S. Tamara, 1999. Improving performance of healthcare providers. Through structured On-the-Job Training: A Pilot Test in Zimbabwe and Kenya. http://www.Reproline.jhu.edu/English/6read/6pi/ojt/tr_ojt2.htm
9. Diana, W. and M. Schaaf, 1998. Training and certifying on-the-job trainers. ASTD Technical training. Teamojt.com/Publications.Html