



## Effectiveness of professional training of Sub Assistant Agriculture Officers

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### ABSTRACT

The study attempted to determine the effectiveness of professional training of Sub Assistant Agriculture Officers (SAAOs) in four upazilas under Mymensingh district namely, Mymensingh sadar, Bhaluka, Trishal and Muktagachha. Data were collected from a sample of 80 skilled, experienced and trained SAAOs who were selected randomly among 139 SAAOs during 01 October to 07 November, 2018 by using a structured interview schedule. More than half of the SAAOs (51.25%) perceived professional training as highly effective, while 46.25% and 2.5% of them perceived training as medium and low effective, respectively. Among 27 training related activities, 'training programs increased proficiency in work' got an average maximum score of 2.44 and 'transport facilities were provided' got an average lowest score of 1.49. Among eleven selected characteristics: level of education, training received, social mobility, communication exposure, attitude of SAAOs towards DAE management and job satisfaction were significantly related to the effectiveness of professional training. The study revealed that there is an ample scope to increase the effectiveness of professional training of the SAAOs. It is therefore recommended that the Department of Agricultural Extension (DAE) and other training providing organizations can offer more funds and attention to organize more related training to make the SAAOs more capable, self-confident and productive extension workers.

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### Introduction

In Bangladesh, the Department of Agricultural Extension (DAE) is one of the most important extension organizations which delivers unique agricultural extension services to the farmers for agricultural developmental over the country. The mission of the DAE is to provide efficient and effective need-based extension services to all categories of farmers, to enable them to optimize their use of resources, in order to promote sustainable agricultural and socio-economic development (DAE, 2016). The DAE has been employing various types of extension personnel. In this regard, the Sub Assistant Agriculture Officers (SAAOs) are appointed at the lowest level in the DAE. A large number of capable, trained, confident and efficient SAAOs are required as agricultural extension workers to work with mostly illiterate rural people engaged in agriculture. According to Ahmad (2002), due to lack of extension skills, the SAAOs are not able to provide satisfactory extension services to the farmers. As a result, professional trainings are essential for the SAAOs so that they can provide training to the farmers to make them more skilled about agricultural production practices in every sector. Training has a direct relationship with the performance of the trainees (Armstrong and Mahmud, 2008). Training can be

effectively used to enhance a person's ability to do a job more accurately (Nilsson, 2010). So, it can be said that training plays a major role in improving competency as well as capacity of the trainees. Professional training is simply training that teaches skills relevant to working in a certain profession. The training course would ideally be taught by someone who is an expert in the field. Effectiveness of professional training of the SAAOs in terms of agricultural development may be influenced by their personal, economic, social and psychological characteristics. An understanding of the relationship between characteristics of the SAAOs and effectiveness of professional training will also be helpful to the planners and extension workers in planning and execution of the training programs. But very little research has been conducted to determine the effectiveness of professional training of the SAAOs in Bangladesh. Hoque *et al.* (2008) found that repetition of training rather than the combination of variety of training programs which are not that much effective. On the basis of above findings, the researchers carried out this research keeping in mind the following objectives: (i) to determine the effectiveness of professional training of the SAAOs; (ii) to describe the selected characteristics of the SAAOs; and (iii) to explore the relationships between the selected characteristics and the effectiveness of professional training of the SAAOs.

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## Methodology

The study was conducted in four upazilas (sub-districts) of Mymensingh district of Bangladesh district namely, Mymensingh sadar, Bhaluka, Trishal and Muktagachha. Most of these upazilas are well communicated and familiar to the researcher. The upazilas were chosen purposively as study area for obtaining a representative sample of the study. The choice was also based on an important concern of availability of a good number of skilled, experienced and trained Sub Assistant Agriculture Officers (SAAOs). It was thus expected that conducting an empirical research in those four upazilas would be the best reflection of the real scenario of the study area. A total of 80 skilled, experienced and trained SAAOs (58% of total population) were selected purposively from a population of 139 SAAOs of the selected four upazilas. Data were collected with the help of a structured interview schedule during 01 October to 07 November, 2018. Effectiveness of professional training was the focus variable and ten selected characteristics of the SAAOs were selected as explanatory variables namely age, level of education, rural background, tenure of service, training received, social mobility, communication exposure, attitude of SAAOs towards DAE management, dedication to extension work (for farmers and DAE) and job satisfaction. Professional training is simply training that teaches skills relevant to working in a certain profession. The training course would ideally be taught by someone who is an expert in the field. The effectiveness of professional training was measured through securing opinion of the SAAOs based on 27 training related activities. In measuring effectiveness of professional training in this study, a 4-point rating scale was used which was slightly modified from the scale used by Divate (2016). Each SAAO was asked to indicate the extent of effectiveness of professional training by using a 4-point rating scale such as mostly effective (ME), effective in average (EA), some extent effective (SEE) and not effective (NE) and weights were assigned to these responses are 3, 2, 1 and 0, respectively. Thus, extent of effectiveness score for a respondent could range from 0 to 81, where 0 indicating lowest effectiveness score and 81 indicating highest effectiveness score. Mean value of the effectiveness of professional training was calculated and on the basis of individual mean value a rank order of the effectiveness of professional training was prepared. For making rank order Effectiveness Score (ES) was also computed. The ES was computed by using the following formula:

$$ES = (N_{me} \times 3) + (N_{ea} \times 2) + (N_{sec} \times 1) + (N_{ne} \times 0)$$

Where,

ES = Effectiveness Score

$N_{me}$  = Number of SAAOs perceived training mostly effective

$N_{ea}$  = Number of SAAOs perceived training effective in average

$N_{sec}$  = Number of SAAOs perceived training some extent effective

$N_{ne}$  = Number of SAAOs perceived training not effective

Thus, the Effectiveness Score (ES) of individual training related activity could range from 0 to 240, where 0 indicating not effective at all and 240 indicating mostly effective professional training.

## Results and Discussion

### *Selected characteristics of the SAAOs*

The summary of the selected characteristics of the Sub Assistant Agriculture Officers (SAAOs) have been presented in Table 1. The results revealed that the majority of the SAAOs (76.25%) belong to middle to old aged category, and most of them (86.25%) had S.S.C with agricultural Diploma to H.S.C with agricultural Diploma level of education. The highest proportions of the SAAOs (91.25%) had high rural background and most of them (91.25%) had moderate to long tenure of service. Majority of them (70%) received short duration training. Maximum respondents (78.75%) had medium level of social mobility, and majority of them (98.75%) had medium to high communication exposure.

The highest proportion of the SAAOs (88.75%) had moderately favorable attitude towards DAE management. Most of them (78.75%) had high dedication to extension work. More than half i.e. 51.25% of the SAAOs worked in medium work environment and rest of them (48.75%) faced high work environment. The highest proportions of the SAAOs (71.25%) had medium level of job satisfaction.

### *Effectiveness of professional training*

Effectiveness scores for professional training ranged from 26 to 76 against a possible range of 0-81, with a mean of 52.78 and standard deviation of 13.46. On the basis of the extent of effectiveness, the respondents were classified into three categories i.e. low, medium and high. Distribution of the Sub Assistant Agriculture Officers (SAAOs) according to the effectiveness of professional training categories is shown in Table 2.

Results of Table 2 reveal that the highest proportion of the SAAOs (51.25%) perceived professional training as highly effective, while 46.25% and 2.5% of them perceived training as medium and low effective, respectively. The findings suggested that almost all the professional training were medium to highly effective for the SAAOs. These findings are in line with Dev (2015).

Table 1. Characteristics profile of the Sub Assistant Agriculture Officers (n=80)

Characteristics (Measuring units)	Range	Categories	SAAOs (n=80)		Mean	SD*
			No.	%		
Age (Years)	22-58	Young (up to 35)	19	23.75	44.225	11.085
		Middle aged (36-50)	24	30.0		
		Old (above 50)	37	46.25		
Level of Education (Years)	10-16	S.S.C with Agril. Diploma	49	61.25	11.325	2.06
		H.S.C with Agril. Diploma	20	25.0		
		B.Sc. with Agril. Diploma	11	13.75		
Rural background (Years)	2-50	Low (up to 5)	1	1.25	31.975	12.706
		Moderate (6-15)	6	7.5		
		High (above 15)	73	91.25		
Tenure of service (Years)	2-37	Short (up to 5)	7	8.75	20.987	11.40
		Moderate (6-15)	33	41.25		
		Long (above 15)	40	50.0		
Training received (Days)	1-130	Short duration (up to 7)	56	70.0	9.462	18.806
		Medium duration (8-30)	20	25.0		
		Long duration (above 30)	4	5.0		
Social mobility (Scale score)	6-32	Low (up to 11)	14	17.5	15.85	4.401
		Medium (12-22)	63	78.75		
		High (above 22)	3	3.75		
Communication exposure (Scale score)	17-51	Low (up to 17)	1	1.25	35.337	7.695
		Medium (18-34)	43	53.75		
		High (above 34)	36	45.0		
Attitude of SAAOs towards DAE management (Scale score)	16-32	Slightly favorable (up to 12)	0	0.0	21.112	3.209
		Moderately favorable (13-24)	71	88.75		
		Highly favorable (above 24)	9	11.25		
Dedication to extension work (Scale score)	22-33	Low (up to 11)	0	0.0	26.962	3.863
		Medium (12-22)	17	21.25		
		High (above 22)	63	78.75		
Work environment (Scale score)	11-30	Low (up to 10)	0	0.0	20.95	3.679
		Medium (11-20)	41	51.25		
		High (above 20)	39	48.75		
Job satisfaction (Scale score)	10-30	Low (up to 10)	3	3.75	17.625	4.779
		Medium (11-20)	57	71.25		
		High (above 20)	20	25.0		

SD\* stands for Standard Deviation

Table 2. Distribution of the Sub Assistant Agriculture Officers according to their categories of effectiveness of professional training

Effectiveness Categories (scores)	No. of respondents (n = 80)	Percent	Mean	Standard deviation
Low (up to 27)	2	2.5	52.775	13.456
Medium (28-54)	37	46.25		
High (above 54)	41	51.25		
Total	80	100.0		

It would be very clear if the individual training related activities were analyzed according to their cumulative effectiveness rating along with average rating. Rank order of different training related activities with their total score and mean score is shown in Table 3. For determining the extent of effectiveness of the individual training related activity, rank order was made computing Effectiveness Score (ES). According to the rank order (Table 3), five training related activities with high scores and another five training related activities with low scores have been described here. Results of Table 3 show that the total effectiveness score of different training related activities ranged from 119-195. It was found that 'training programs increased proficiency in

work' obtained highest mean score of 2.44. It might be due to the fact that training programs are the most important methods for enhancing the productivity and improving knowledge and skills of the SAAOs on different agricultural issues. 'The content of the training programs were very useful' got a mean score of 2.34 which indicated that the subject matters were relevant and need based for the professional training of the SAAOs. The mean score of 'the training programs had comprehensiveness' was 2.24 which meant that the professional training arranged for the SAAOs were complete and time bound. 'The training contents were highly qualitative' and 'new knowledge development of the trainees' obtained average scores of 2.23 and 2.15, respectively.

The above results revealed that most of the professional training which were organized by Department of Agricultural Extension (DAE) which were very useful, comprehensive, highly qualitative to increase new knowledge and skills of the SAAOs and also for their professional development. 'Arrangement of quality field visits' got an average score of 1.75, the average score of 'pre and post evaluation,' and 'post communication' were 1.70 and 1.65, respectively. This might be due to

### Effectiveness of training of SAAO

the unavailability of proper rules and regulations of the DAE and other training providing organizations about professional training for the SAAOs. 'Refreshment facilities' got an average of 1.63 score and 'Transport facilities were provided' got an average score of only 1.49 which was very much lower score for a professional training course. The SAAOs showed very poor perception towards refreshment and transport facilities. This might be due to the lack of budget which ultimately discouraged them to attend in the training programs. Therefore, DAE should take necessary steps

to provide enough supports to the SAAOs so that they can concentrate on the training sessions properly.

### Relationships between training and selected characteristics of SAAOs

The correlation analysis was conducted to determine the relationship between effectiveness of professional training of the Sub Assistant Agriculture Officers (SAAOs) and their characteristics. The result of correlation analysis has been shown in Table 4.

Table 3. Rank order of different training aspects with extent of effectiveness, total score and mean score

Training related activities	Extent of effectiveness (n = 80)				Total score (ES)	Mean	Rank order
	ME	EA	SEE	NE			
The training programs had good relevancy to actual need at the field.	20	48	12	0	168	2.10	7
The training programs increased proficiency in work.	39	37	4	0	195	2.44	1
The training programs were relevant to professional development.	27	35	18	0	169	2.11	6
The content of the training programs was very useful.	35	37	8	0	187	2.34	2
The training contents were highly qualitative.	29	40	11	0	178	2.23	4
The training programs had comprehensiveness.	32	35	13	0	179	2.24	3
Pre and post evaluation had done effectively.	11	38	27	4	136	1.70	20
Quality teaching methods were used.	15	40	22	3	147	1.84	16.5
Necessary materials were supplied.	16	39	25	0	151	1.89	14
Active participations were encouraged.	24	37	19	0	165	2.06	9.5
There were enough provision for practical exposure sessions	17	36	24	3	147	1.84	16.5
Group activity promoted.	20	31	28	1	150	1.88	15
Quality field visits were arranged.	14	35	28	3	140	1.75	19
Involvement of multi-stakeholders	16	23	34	7	128	1.60	23
The sessions were well organized.	15	37	23	5	142	1.78	18
Post communication had done.	13	31	31	5	132	1.65	21
The trainers had high quality and potentiality.	27	33	19	1	166	2.08	8
The trainers had practical and communication skills.	24	38	17	1	165	2.06	9.5
Their presentation style and interaction were satisfactory.	25	35	19	1	164	2.05	10.5
There was friendly environment during training.	23	35	22	0	161	2.01	13
Accommodation facilities were available.	15	36	26	3	143	1.79	17
There were refreshment facilities.	7	40	29	4	130	1.63	22
Transport facilities were provided.	7	36	26	11	119	1.49	24
Incentives for participants were supplied.	26	33	18	3	162	2.03	12
The trainee skills increased.	20	44	16	0	164	2.05	10.5
New knowledge development of the trainees	28	36	16	0	172	2.15	5
The training programs encouraged the trainees for future development.	23	39	16	2	163	2.04	11

Notes: ME= Mostly Effective, EA= Effective in Average, SEE= Some Extent Effective, NE= Not Effective, ES= Effectiveness Score

Table 4. Result of correlation analysis between explanatory variables and focus variable

Focus variable	Explanatory variables	Correlation coefficient (r) with 78 df	Tabulated values of r with 78 df	
			0.05	0.01
Effectiveness of professional trainings of SAAOs	Age	0.207		
	Level of education	0.285*		
	Rural background	0.063		
	Tenure of service	0.106		
	Training received	0.259*		
	Social mobility	-0.222*	0.219	0.286
	Communication exposure	-0.360**		
	Attitude of SAAOs towards DAE management	0.247*		
	Dedication to extension work	0.146		
	Work environment	0.128		
	Job satisfaction	0.563**		

Notes: \*\*: Significant at 1% level of probability; \*: Significant at 5% level of probability

Results of Table 4 indicate that level of education of the SAAOs is positively and significantly correlated with their effectiveness of professional training. Thus, it can be said that with the increase of the level of education, the effectiveness of professional training also increases. A similar finding was obtained by Dev (2015) and Yeasmin (2013). The positive significant correlation between training received and effectiveness of professional training revealed that different professional training helped the SAAOs to understand the nature and aspects of training easily which made professional training more effective. Training made a SAAO aware of doing something better than the others. Dev (2015) also found similar relationship. Social mobility showed a negative significant correlation with the effectiveness of professional training. The SAAOs are very much busy with their responsibilities. A cosmopolite SAAO is more mobile and he/she had to move frequently to different places outside of his/her block. A similar relationship was found by Ahsan (2004). The negative significant correlation of communication exposure with effectiveness of professional training pointed out that the SAAOs obtained necessary knowledge, information and advice on different agricultural issues by contacting with extension media which established a negative perception among them about the effectiveness of professional training. Ahsan (2004) observed similar findings. Attitude of SAAOs towards DAE management had a positive significant correlation with effectiveness of professional training that might be the outcome of participation in the training as well as making contact with various expert extension personnel of Department of Agricultural Extension (DAE). The positive significant correlation between job satisfaction and effectiveness of professional training revealed that a good number of effective training increased the job satisfaction of the SAAOs. The main reason of this result might be that the SAAOs got innovative ideas with greater confidence through learning by doing activities in the effective training programs. Thus, the correlation analysis in Table 4 indicated some important intrinsic implications of the study. Level of education, training received, social mobility, communication exposure, attitude of SAAOs towards DAE management and job satisfaction played important role to the effectiveness of professional training of the SAAOs.

## Conclusion

The findings showed that more than half of the SAAOs (51.25%) perceived professional training as highly effective, while 46.25% and 2.5% of them perceived training as medium and low effective, respectively. The Sub Assistant Agriculture Officers (SAAOs) of the study area showed overall satisfactory perceptions regarding

the effectiveness of professional training courses except a little bit poor perception regarding pre and post evaluation, post communication/follow up, transportation arrangement and refreshment facilities. The study revealed that there is an ample scope to increase the effectiveness of professional training of the SAAOs. It is therefore recommended that the Department of Agricultural Extension (DAE) and other training providing organizations can offer more funds and attention to organize more related training in future to make the SAAOs more capable, self-confident and productive extension workers. In such case, it could be necessary to concentrate on the selected characteristics of the SAAOs such as level of education, training received, social mobility, communication exposure, attitude of SAAOs towards DAE management and job satisfaction.

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