

## TRAINING NEEDS ASSESSMENT OF BANGLADESH AGRICULTURAL INSTITUTE TEACHERS

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### Abstract

The main purpose of this study was to assess the training needs of Bangladesh Agricultural Institute (BAI) teachers. All the teachers of BAI were the target population. Data were collected from 42 randomly selected teachers of BAI. Teachers expressed substantial training needs to improve their professional expertise in teaching, research, administration and extension. Results also indicated that significant differences existed in assessing training needs of the teachers based on their age, service experience, and duration of training received by them.

*Key words:* Assessment, Needs, Training.

### Introduction

Training usually appears in mind as a formal educational process carried out in a classroom by an instructor. This is undoubtedly a narrow view of training. A realistic definition of employee training is that a formal process designed to improve employees with either information or experiences to improve or aid their job performance (Luthans and Martinko, 1979). Training aims at changing knowledge, skill, attitude and behavior of people so that they can carry out their present job satisfactorily or prepare them for greater responsibility in the

future (Proctor and Thornton, 1961; Halim and Ali, 1988). It is generally designed to improve the performance of duties assigned to an individual (Stahl, 1976). An organized and field oriented training brings desired outcome. Therefore, it is evident that relevant training is definitely needed to increase one's professional competency and expertise to perform certain job better than before.

Bangladesh Agricultural Institute (BAI) is an educational institute. It has been offering higher degrees in agriculture since 1941. It is the responsibility of the teachers to guide, prepare and teach the students so that they can acquire knowledge and skills which help them in undertaking various nation building activities in the field of agriculture. To have quality service from the teacher, they need to have some training. Before planning a training

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program it is necessary to identify the training needs to the incumbent. Thus, this study was designed to identify the training needs of the teacher's of Bangladesh Agricultural Institute. The specific objectives of the study were to : (i) ascertain the training needs of the teachers; (ii) describe the selected characteristics of the respondents; (iii) identify the field of training needs of the teachers; and (iv) determine whether differences existed in training needs assessment of the respondents based on their age, service experience and duration of training received.

### Methodology

The design of the study was a descriptive survey research. An instrument, containing 16 items concerning four areas of training needs for the teachers, was used to collect data. The respondents indicated their needs about each of the items on a five point Likert-Type-Scale ranging from 1 (no need) to 5 (urgent need).

Keeping the objectives of the study in mind, the instrument was developed by the researchers. It's content validity was established by a panel of experts. The post hoc reliability of the instrument was calculated and the Cronbach's alpha ( $\alpha$ ) coefficient of the instrument was 0.915. According to Banach (1990) the sample size should be logical to obtain 95 percent confidence level in generalization of the findings. Therefore, forty-two (42) teachers were randomly selected from a total of 60 teachers belonging to various departments. Data collection began in April 12 and was completed in April 30, 1992.

Data were analyzed by using SPPSS/PC+ programs. Frequency count, number as well as means, and standard deviation were calculated. T-test and Analysis of Variance (ANOVA) were used to determine whether significant differences existed between and among the groups of teachers regarding their training needs

assessment. Tukey's multiple-comparison tests were employed to isolate the differences in needs assessment of the teachers. The resulting differences in training needs assessment were tested for significance at 0.05 level of probability.

### Results and Discussion

*Age of teachers* : The age of teachers ranged from 26 to 54 years, the average being 38 years. Highest proportion (38 percent) of the respondents were from 31 to 45 years of age, while 31 percent were in both the 26 to 30 years and 46 to 54 years age categories.

*Service experience* : More than two-fifths (41 percent) of the teachers had 14 years or more of service experience. Slightly more than one-fifth (26 percent) of the respondents had 9 to 13 years of service experience as

**Table 1.** Frequency distribution of teachers according to the fields of training they received.

Fields of training	Number
Communication and office management	9
Research planning and evaluation	30
Insect and pest management	2
Descriptive statistics	2
Collection and evaluation of germplasm	1
Biometrics	1
Agricultural price policy	1
Computer program	1
Insect taxonomy	2
Multiple cropping	1
Rice production	1
Soil testing and soil analysis	2
Rural extension management	2
Audio-visual production	3
Remote sensing in agro-meteorology	2
Disaster preparedness	1
Crop loss assessment	1
Tissue culture	1
Agricultural extension and irrigation methods	1
Project management principles	3
Fertilizer use and rural extension	1

compared to 21 percent having upto 3 years experience in service. Only 5 respondents had 4 to 8 years of service experience and this category was merged with the respondents who had service experience upto 3 years to form a combined category called upto 8 years of service experience.

*Duration of training received* : Three-fifths (60 percent) of the respondents had training upto 30 days, whereas 40 percent had training more than 30 days. Data shown in Table 1 indicate that the highest number of 30 teachers received training in research planning and evaluation followed by 9 in communication and office management, and 3 in each of audio-visual production and project management principles.

The teachers expressed that they received training in the areas where opportunities were available to them, not on the basis of their needs.

*Training needs of BAI teachers* : Means and standard deviations of the training fields were calculated (Table 2). The mean ratings of training ranged from 3.50 to 3.90, indicating substantial needs of training on specific subject matter, audio-visual aid, research design and project preparation, identification of research problems, data analysis and interpretation, acquaintance with recent research findings, and acquaintance with recent field problems. Eight fields of training ranged from 2.88 to 3.49, indicating some

**Table 2.** Means and standard deviation of difference training fields of the teachers.

Fields of training	Mean*	SD
<b>Teaching:</b>		
Training on specific subject matter	3.93	1.05
Use of audio visual aids	3.50	.77
Deliberation technique	3.12	1.13
Communication skill	3.31	1.02
<b>Research:</b>		
Research design and project preparation	3.64	1.08
Identification of research problems	3.52	.86
Data analysis and interpretation	3.79	.98
Technical report writing	3.36	1.06
<b>Administration:</b>		
Job description	2.09	1.10
Decision making and leadership	3.21	1.09
Budget preparation and financial management	2.95	.94
Duties and responsibilities	3.21	1.00
<b>Extension:</b>		
Acquaintance with recent research findings	3.71	.99
Acquaintance with recent field problems	3.76	.91
Familiarities with objectives and approaches of different extension organizations	3.21	1.12
Conflict management	2.88	1.09

\* Means were calculated based on a five-point scale

1= No Need, 2= Little Need, 3=Some Need, 4= Substantial Need and 5= Urgent Need.

needs in deliberation technique, communication skill, technical report writing, decision making and leadership, budget preparation and financial management, duties and responsibilities, familiarities with objectives and approaches of different extension organizations, and conflict management. Mean in "Job description" was 2.09, which indicated little needs. These findings put forward sufficient evidence that all the teachers needed training in teaching, research, administration and extension areas to provide quality services to the institute.

### Differences in assessing training needs

*Training received and future training needs of the respondents.*

Individual means were calculated for each training fields by using SPSS\PC+ programs and they are presented in table 3.

The mean ratings by teachers who received training upto 30 days for ten of the training fields ranged from 3.50 to 4.14, indicating a substantial needs. The mean ratings of the other 6 fields ranged from 3.04 to 3.49, indicating

**Table 3.** Means, standard deviations and T-values on training needs assessment for teachers who received training on different fields upto 30 days and those who received more than 30 days.

Training areas	Received training				T-Value	Two-tailed Probability
	Upto 30 days		More than 30			
	Mean*	SD	Mean*	SD		
<b>Teaching:</b>						
Training on specific subject matter	4.14	.91	3.37	1.08	2.34	.02
Use of audio-visual aids	3.52	.81	3.43	.81	.32	.75
Deliberation technique	3.38	1.11	2.56	1.03	2.28	.02
Communication skill	3.61	.66	2.75	1.18	2.83	.008
<b>Research:</b>						
Research design and project preparation	3.90	.83	3.06	1.23	2.48	.018
Identification of research problems	3.80	.60	2.93	.85	3.65	.001
Data analysis and interpretation	3.85	.96	3.50	1.03	1.08	.28
Technical report writing	3.66	.79	2.68	1.13	3.08	.004
<b>Administration:</b>						
Job description	3.04	.86	2.43	1.03	1.96	.05
Decision making and leadership	3.28	.90	2.93	1.34	.94	.35
Budget preparation and financial management	3.00	.77	2.87	1.20	.38	.70
Duties and responsibilities	3.52	.75	2.62	1.02	3.08	.004
<b>Extension:</b>						
Acquaintance with recent research findings	3.85	.72	3.18	1.10	2.22	.03
Acquaintance with recent field problems	3.90	.76	3.25	.85	2.44	.02
Familiarities with objectives and approaches of different extension organizations	3.28	1.05	2.87	1.14	1.13	.26
Conflict management	3.19	.98	2.68	1.19	1.41	.16
<b>Overall Training Needs</b>	<b>3.56</b>	<b>.47</b>	<b>2.94</b>	<b>.73</b>	<b>3.07</b>	<b>.004</b>

\* Means were calculated on the basis of a five point scale

1= No Need, 2= Little Need, 3= Some Need, 4= Substantial Need, and 5= Urgent Need

**Table 4.** Means, F-values, and probability of F-values on the training needs according to the age of teachers.

Training Areas	Age of Respondents			F-Value	Probability
	Upto 30 years (Mean*)	31-45 years (Mean*)	46 & above (Mean*)		
Teaching	3.88	3.26	3.28	3.68	.03
Research	4.21	3.18	3.48	7.78	.001
Administration	3.40	3.00	2.82	2.00	.14
Extension	3.80	3.18	3.23	2.94	.06
Overall Training Needs	3.82	3.16	3.19	5.09	.01

\* Means were calculated on the basis of a five point scale

1= No Need, 2= Little Need, 3= Some Need, 4= Substantial Need, and 5= Urgent Need

some needs for the teachers. In all but one training fields, "job description" (mean= 2.43), the mean rating by the teachers who received training more than 30 days ranged from 2.50 to 3.50, indicating some and substantial needs.

Overall training needs of the respondents were calculated by adding teaching, research, administration and extension aspects of training. The mean ratings of the respondents who received training upto 30 days and more than 30 days were 3.56 to 2.94 respectively, indicating substantial and some needs of training, respectively. Significant differences in ten

training fields were found between the two groups, However, the two groups differed in overall training needs scores. Teachers who received less training expressed substantial need and those who received more training assessed some training need to improve their professional performance.

#### *Age of the respondents and training needs*

Data presented in Table 4 indicate that significant differences existed in assessing training needs on teaching, research, and overall training among the teachers upto 30 years, 31 to

**Table 5.** Means, F-values, and probability of F-values on the training needs according to their service experience.

Training Areas	Service experience of respondents			F-Value	Probability
	Upto 8 years (Mean*)	9-13 years (Mean*)	14 & above (Mean*)		
Teaching	3.83	3.18	3.33	3.41	.04
Research	4.17	3.11	3.38	7.92	.001
Administration	3.37	2.28	2.98	1.83	.17
Extension	3.76	3.09	3.27	2.88	.06
Overall Training Needs	3.79	3.05	3.24	5.13	.01

\* Means were calculated on the basis of a five point scale

1= No Need, 2= Little Need, 3= Some Need, 4= Substantial Need, and 5= Urgent Need

45 years and 46 to 54 years. The mean ratings of the teachers upto 30 years were higher in all areas than those of other categories.

### *Service experience and training needs*

Significant differences in assessing training needs of teachers in teaching, research and overall training were found in respect of their service experience (Table 5). The higher the experience in service lower was the emphasis on training needs.

It is worthwhile to mention that the differences in needs assessment found in T-test and analysis of variance were not between no need and substantial need. The level of training needs assessment of the teachers was on the positive side of the scale in all cases.

### **Conclusions**

Every organization/institution must have definite human resource development plan to improve the quality of services required to attain its goals. Bangladesh Agricultural Institute is an educational institute producing manpower to be employed in nation building departments. In order to produce quality graduates, the teachers should have training in teaching, research, administration and extension activities to improve their professional mastery. Majority of the teachers expressed a substantial overall training need especially in teaching and research fields for their professional maturation.

Based on these findings, it may be assumed that the Bangladesh Agricultural Institute had no definite teachers' improvement plan. Highest proportion of the teachers received training upto 30 days in various fields throughout their profession. The areas they covered were based on the availability of the courses and not on their real training need.

Teachers expressed substantial training need on teaching and research oriented fields.

Majority (69%) of the teachers were 30 to 35 years old and they assessed substantial training needs to enrich the quality of their profession. Younger people are receptive to new ideas and are willing to develop their career. The planners might consider this group while opportunity come for the teachers. One-third of the respondents had less than 8 years of service experience. These groups have long way to go to their profession. If they got proper training in teaching, research, administration and extension oriented fields they might be well-equipped to guide, prepare and teach the students. Thus they can contribute much to the institute. The planners might accentuate to arrange training for this group. More training opportunities are likely to be available if top level administrators can see its relevance to the task of development and extend to it all the support it needs to be available to contribute to the improved performance of teachers on the job. Thus it is expected that the findings of this study would provide guidance for the appropriate authority of the Bangladesh Agricultural Institute to develop and implement a significant human resources development plan for it's teachers.

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