



Effect of Government Youth Development Training on Knowledge, Skill, and Attitude of the Incumbents in Barisal Division of Bangladesh

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Abstract

With the aim of evaluating the effect of Government Youth Development Training on the KSA of the incumbents, this research used structured interview schedule and accomplished face-to-face interview of 142 randomly selected trainees from four purposefully selected Youth Training Centers. A strong positive significant change of KSA occurred due to the training and major change happened in knowledge followed by skill and attitude. The regression analysis shows that the traits of the trainers, location of the training center, and regularity in class attendance had significant relationship with knowledge change of the incumbents, while the traits of the trainers, experience of other trainings, and location of the training centers were significant determinants of skill change. Continuous improvement of trainer's traits as well as inclusion of more practical field works in training sessions, and frequent evaluation of each training program based on KSA(Knowledge Skill & Attitude) is crucial to improve the effect of government youth development training in the study area.

1. Introduction

Young people – the most crucial segment of population for development - constitute the major section of population in Bangladesh. According to Demographic and Health Survey 2014, among 154 million total populations in Bangladesh, 34.3 percent are between the ages of 15-34. The youth are the most strong, enthusiastic, self-confident, and productive segment of the population. They are the most valuable human resource and future leader of a nation. National development largely depends upon their active participation in the development programs. Utilization of their endless creativity and potential can take a nation to the peak of success.

Bangladesh is in a great position to utilize the potentials of the young people, which constitute the major section of the population. Lamentably, the youths of the country are experiencing a magnitude of socioeconomic problems, such as unemployment, underemployment, illiteracy, lack of technical education, skill, and training, financial crisis evolved from the existence of mass poverty (Sarker, 2008; Ahmed and Khan, 2015). In Bangladesh, youth unemployment rate is mounting day by day. In last eight years the rate of unemployed youth has become almost doubled from 6.39% in 2010 to 12% in 2018 (Statista, 2019). Among the total youth population 29.8% is NEET (not in education, employment, or training) (Khatun, 2018). Realizing unemployment as a decisive problem, the World Bank also identifies youth employment as country's top development priority (World Bank, 2019).

Problem of unemployment of youth can be tackled in many ways. Modern farming can be introduced in animal husbandry, fish farming, poultry rearing, dairy farming, beef fattening, horticulture, etc., where young people can find job. However, successful ventures in the aforesaid sectors are closely linked with the skill development via effective training. Realizing this, many organizations originated from the public or private sectors are providing various training to the young folks of the country, where the Department of Youth

Development (DYD) is playing the central role. The department has imparted skill development training to 46, 90,471 youths in different trades since its inception in 1981 (Ministry of Finance, 2016). Through 53 Youth Training Centers (YTCs) scattered across the country DYD is offering institutional (in 33 trades) and non-institutional (in 41 trades) training to the young incumbents who have completed education up to class 8 and less than 40 years old (DYD, 2015).

Mere increase in the number of trainees does not indicate the effectiveness of a training program. The degree to which the training outcome is closer to the training objective determines training effectiveness (Vyas, 2004). Evaluating the effectiveness of training program is a crucial step as it is carried out to see how well the training objectives have been met and whether it is the best method for acquiring those objectives (Chimote, 2010). Well structured measuring system also assists us to detect where the problems exist. Nonetheless, training evaluation is one of the crucial parts of the training process. The DYD is investing huge efforts and resources for the training of young people in Bangladesh. Unfortunately, the effectiveness of these trainings remains unknown as there is absence of well-structured training evaluation system in place.

Effectiveness is the degree to which the trainee reaches a stated goal. It represents trainee's success in accomplishing what he/she tries to perform. Effectiveness is concerned with 'doing things right' and connected to the output of the job and what the trainee actually Achieves. Berry (2006) describes training effectiveness as the trainee's ability to learn, absorb and retain the new skills set or knowledge and then transfers these skills and knowledge learned onto the job. Training effectiveness may be assessed by considering the results or evaluation, performance of the trainees and their ability to transfer techniques to their jobs. Training effectiveness can also be a function of trainee characteristics, training design and contextual factors (Scaduto et al., 2008).

Tools for evaluating the training ideally provide information and feedback about the adequacy of the training program as well the parts that are ineffective. Several models were evolved in measuring training effectiveness. One of such models applied in insurance training and learning evaluation is Knowledge, Attitude, Skill, and Habit (KASH) model developed by Life Insurance Marketing and Research Association (LIMRA) (Jeng and Hsu, 2005). This model claimed that most of the organizations select employees emphasizing knowledge and skill. However, the success of organization Does not solely depend on knowledge and skill, which comes from left side of the brain but also on attitude and habits, which is controlled by the right side of the brain. So, training programs of successful organization should exert equal importance in the development of all these four dimensions.

General Performance Model, on the other hand claimed that a person's Performance (P) depends upon the interaction of Motivation (M), (Knowledge, Skill and Attitude) KSAs and Environment (E). Job performance and behavior in general are a function of what somebody knows, what he is able to do, and what he believes (KSAs). If somebody doesn't have the requisite KSAs, he can't perform. However, additional factors are also important in determining job performance Figure 1.

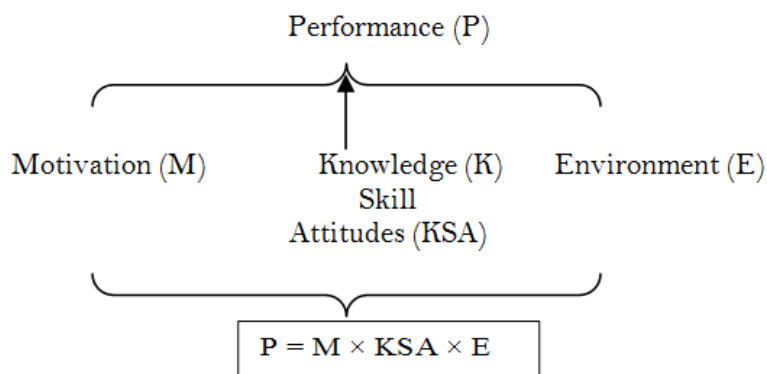


Figure-1. General performance model.

Source: Blanchard et al. (2010).

Knowledge, skills and attitude constitute the three most important ingredients of career success. Evaluation of success stories of statesmen, business-persons, actors, writers, educationists, is a revelation and one can come up with several concepts behind their success. A proven concept is the 'Triangle of Success', representing the three success ingredients: Knowledge, Skills and Attitude (Kumar, 2016). Kumar named this triangle success as "The magic triangle". Which success ingredient is more important? Even though difficult to generalize, in the work environment, emphasis is more on 'attitude', with the belief that 'knowledge' and 'skills' required for the job can be imparted. However, in general, the Triangle of Success is equilateral, affirming that all three aspects are equally vital.

The Kirkpatrick Model- a well-known model for analyzing and evaluating the results of training and educational program- proposed to determine aptitude based on four level criteria. The four levels of evaluation are- Reaction which measures how trainees react to the training e.g., satisfaction; Learning that analyzes if the trainees truly

understood the training e.g. increase in knowledge, skills or experience; *Behavior* looks as if the incumbents are utilizing what they learned at work e.g., change in behaviors; and *Results* which determines the effects that the student's performance has on the business (Kirkpatrick, 1994).

Critical review of models measuring training effectiveness represents that training effectiveness depends on the change of KSAs of the trainees as well as transferring these changes to the job performed. In fact, the changes in KSAs are very crucial because without significant changes in KSAs desirable changes in the job performance is not possible. Conceiving this fact, this research picked changes in KSAs for measuring the effectiveness of agricultural training offered by Department of Youth Development (DYD) under the ministry of Youth and Sport of Bangladesh.

1.1. Objectives of the Study

The general objective of this study was to explore the effect of the Department of Youth Development agricultural training on KSA of the incumbents. The specific objectives were to:

- i. Reveal the effect of DYD agricultural training on the KSA of the incumbents in a selected region of Bangladesh.
- ii. Explore the determinants of KSA change due to DYD training.

2. Methodology

This research was conducted in the Barisal Division. Barisal is one of the ten administrative divisions and located in the south central part of Bangladesh. There are six Youth Training Centers (YTCs) in the six districts of Barisal Division. The YTCs provide training on different trades to the young people and running under the supervision of the Department of Youth Development (DYD). DYD operates huge programs through 64 districts, 493 upazilas (sub-districts) including 10 metropolitan unit Thana offices and 111 Youth Training Centers all over the country.

Among the six YTCs in Barisal Division four YTCs namely Barisal, Patuakhali, Pirojpur, and Jhalokathi districts were purposefully selected. A total of 180 students were enrolled in the selected training centers for the period June, 2017 and June, 2018, which forms the population of the study. At 99% confidence interval and 5% margin of error, a sample size equivalent to 142 was selected and was used as study's sample.

This research used structured questionnaire to collect data from the respondents. Before after status of knowledge, skill, and attitude was compared. In the very beginning of the training program, a structured interview schedule was administered among the trainees, which was again administered on the same respondents at the end of training to capture the changes in knowledge, skill, and attitude. The change in knowledge of the trainees was measured based on 20 questions carrying equal marks of 0.5 (Ten multiple choice; five fill-in the blanks; and five true false questions). All these questions were related to the training contents covering agriculture, fisheries, livestock, and other issues addressed in the training. Effect of training on the skill change was measured based on five questions regarding perceived change of skill along with the ability of solving three practical problems related to poultry, vegetables, and livestock. Change in attitude was measured based on Likert scale composed of 10 items.

Before finalizing the questionnaire a pre-test was carried out to test the clarity and meaningfulness of the questions, as well as weaknesses in design and instrumentation. Reliability of the questions related to attitude and skill was checked by Cronbach α . For both the variables the value was more than 0.80 which exceeded the suggested limit 0.70 proposed by Nunnally (1978). Reliability of the questions regarding knowledge and skill (solution of practical problems) was measured based on split-half method, where a significant correlation was found between two groups.

2.1. Data Analysis

This research used mean, standard deviation, median, mode, minimum and maximum scores to describe the general characteristics of the respondents. To find out the items where major change had occurred difference between before after weighted mean (WM) which was calculated. The significance of change in before after status of knowledge, skill, and attitude was compared based on paired sample t-test, while the determinants of knowledge and skill changes were revealed based on multiple regression analysis. Two regression analyses were conducted separately taking knowledge and skill change as criterion variable.

3. Results and Discussion

3.1. Demographic Characteristics of the Trainees

The total number of youths that participated in this study were 142. Findings presented in Table 1 reveals that the average age of the participants was 23.41 years and most of the participants (82.1%) were male. High proportions (69.7%) of the respondents came from the rural area, while majority of the participants had education up to 12.16 classes. Little less than one third (29.6%) of the trainees had previous experience of training and most of them (95.08%) were moderately regular to very regular in attending training classes. However, a detail of all the variables is showed in Table 1.

Table-1. Distribution of the trainees by their demographic characteristics (n=142).

Variable	\bar{x}	Median	Mode	Sd
Age	23.41	21	18	5.97
Education (Years)	12.16	12	10	2.60
Quality of trainer	14	15	20	5.59
Gender	Male = 119 (83.8%), Female = 23 (16.2%)			
Residence	Rural 99 (69.7%), Urban = 43 (30.3%)			
Training experience	Yes = 42(29.6%), No = 100 (70.4%)			
Location of Youth Training Center	Barisal YTC=39 (27.46%), Jhalokathi YTC=59(41.54%); Patuakhali YTC = 20(14.08%); Pirojpur YTC =24 (16.90%)			
Attendance in class	Very irregular=4(2.81%); Irregular=3(2.11%); Moderately Regular=48(33.80%); Regular=38(26.76%); Very regular=49(34.50%)			

Source: Field study, 2017.

3.2. Change in Knowledge of Trainees

Data presented in Table 2 shows that the average number of correct answer before training was about three questions out of twenty, while the average number of correct answer was little more than fourteen after training which indicate a huge change of knowledge of the incumbent due to training.

Table-2. Comparison of pre and post training status of knowledge of the trainees.

Stage	\bar{x}	Median	Mode	σ	Observed range	
Post-training knowledge	7.13	7.5	6	1.59	3	10
Pre-training knowledge	1.41	1.25	1.00	1.11	0	5.50

Source: Field study, 2017.

3.3. Change in Skills of Trainees

Figure 2 shows that before training the average number of Problems solved among three problems was 0.137. However, after the training the average number of Skill-based problems solved was 2.76.



Figure-2. Comparison of average number of Skill-based problems solving capacity pre and post training.

Source: Field study, 2017.

Data arranged in Table 3 shows that highest perceived skill development was in setting own goal (1.49) followed by capacity of identifying own success or failure (0.49), efficient time management (0.36), interpersonal communication skill (0.10), etc.

Table-3. Distribution of the trainees by their perception of improvement of skill (n=142).

Sl.	Aspect	WM		AT-BT	Rank
		BT	AT		
1	Setting own goal	0.26	1.75	1.49	1
2	Efficient time management	0.68	1.04	0.36	3
3	Mixing with others	1.44	1.45	0.01	5
4	Identifying the causes of personal success or failure	0.46	0.95	0.49	2
5	Interpersonal communication skill	0.52	0.62	0.10	4

Note: BT= Before Training; AT= After Training; WM=Weighted mean.

Source: Field study, 2017.

3.4. Change in Attitude of Trainees

As displayed in Table 4, all the selected aspects of attitude experienced a positive change. It is also evident from the same table that major attitude change was in the creation of own job (2.11), recognizing equal rights of man and woman (1.22) and inaugurating activities without the help of others (0.60).

Table-4. Distribution of trainees by change of attitude due to the training (n=142).

Sl.	Aspect	WM		AT-BT	Rank
		BT	AT		
1.	Creating own job	-0.56	1.55	2.11	1
2.	Equal rights of male and female	-0.77	0.45	1.22	2
3.	Achieving success in life	1.11	1.50	0.39	4
4.	Being honest in every situation	0.23	0.47	0.24	7.5
5.	Every problem has a solution	1.29	1.47	0.18	9
6.	Staring activities without the help of others	0.52	1.12	0.60	3
7.	Working with others for success	1.28	1.57	0.29	6
8.	Ethics can't be compromised with success	0.17	0.41	0.24	7.5
9.	One should always try to keep promise	1.64	1.56	-0.08	10
10.	A trained hardworking youth can create jobs for others	0.85	1.17	0.32	5

Note: BT= Before Training; AT= After Training; WM=Weighted mean.

Source: Field study, 2017.

3.5. Comparison of KSA in Pre and Post Training

Data arranged in Table 5 shows that based on the t value, a highly significant positive change occurred in KSA and the major improvement was in knowledge dimension ($t=37.25$, $P<0.000$) followed by skill ($t=21.45$, $p<0.000$) and attitude ($t=10.54$, $p<0.00$).

Table-5. Distribution of trainees based on comparison of pre and post status of KSA (n=142).

Aspects	Pre			Post			Difference Post-Pre	t	df	p
	\bar{x}	s	SE	\bar{x}	s	SE				
Knowledge	1.41	1.11	0.093	7.13	1.59	0.133	5.72	37.25	141	0.000
Skill	3.63	3.60	0.302	13.46	4.55	0.382	9.83	21.48	141	0.000
Attitude	5.94	4.83	0.405	10.73	4.93	0.414	4.79	10.54	141	0.000

Source: Field study, 2017.

3.6. Determinants of Knowledge and Skill Change

Determinants of knowledge and skill change were revealed deploying multiple regression analysis. Before running the regression analysis, suitability of the data for regression analysis was checked and the results are displayed in the bottom of the column of Table 6. In the case of knowledge change, it was found that gender, other training experience, traits of the trainers, training center, and class attendance generated a significant model and all these variables together can explain 38.3% change in knowledge. The model further reveals that knowledge change had highly significant ($\beta = 0.281$; $P<0.000$) relationship with the traits of the trainer. Knowledge change was also significantly related to the location of the training centers. Compared to Pirojpur YTC the probability of knowledge change was 47.8% and 47.7% higher, if the trainee is from Barisal and Jhalokati YTC. The incumbents, who are regular to very regular in classes had 13.7% and 12.7% more probability of change of knowledge than the trainees had moderate attendance in training classes. Education, other training experience, traits of the trainer, location of training center produced a significant model with the change of skill and the predictors all together can explain 35% variation in skill change. Among the predictor variables traits of the trainer ($\beta = 0.357$; $p<0.000$) and other training experience ($\beta = 0.224$; $p<0.00$) showed highly significant relationship with skill change. Skill change also varies significantly based on the location of the training center. Trainees of Barishal, Jhalokati, and Patuakhali YTC had 33.5%, 58.7%, and 34.6% more probability of skill change compared to the trainees of Pirojpur YTC.

The findings of the research establish the fact that DYD agricultural training significantly contributed to the enhancement of trainee's KSA. According to t statistics highest positive change took place in knowledge dimension followed by skill and attitude. Actually, training as an aspect of education emphasizes skill development in incumbents for better performance (Gibbs *et al.*, 2004). However, in this research change in knowledge superseded skill development, which might be an indication that DYD agricultural training is slightly skewed to theoretical information rather than practical skill development. It is also important to note that attitude change is minimum compared to knowledge and skill change. In fact, DYD agricultural trainings are short duration and not lengthy enough to bring striking change in the attitude of the trainees. Wills (1994) also argues that training is insufficient to bring about major long-term changes in attitude.

Table-6. Determinants of knowledge and skill change of the trainees.

Predictor Variables	Knowledge change						Skill change					
	B	SE	β	t	p	VIF	B	SE	β	t	p	VIF
Constant	2.50	0.457	5.47		0.000		3.03	2.06		1.47	0.144	
Gender	0.343	0.344	0.069	0.999	0.320	1.102						
Education							-0.236	0.161	-0.119	-1.47	0.144	1.38
Other training experience	0.180	0.267	0.045	0.675	0.501	1.02	2.53	0.87	0.224	2.90	0.004	1.26
Traits of trainer	0.092	0.022	0.281	4.126	0.000	1.06	0.332	0.06	0.357	5.07	0.000	1.05
Training center												
Barisal	1.951	0.327	0.478	5.96	0.000	1.46	3.86	1.14	0.335	3.39	0.001	2.07
Jhalokati	1.765	0.297	0.477	5.94	0.000	1.47	6.21	1.06	0.587	5.84	0.000	2.14
Patuakhali							5.11	1.27	0.346	4.00	0.000	1.58
Ref category: Pirojpur Youth Training Center												
Class attendance												
Regular	0.564	0.317	0.137	1.78	0.077	1.35						
Very regular	0.487	0.286	0.127	1.70	0.079	1.27						
Reference category: Moderately regular												
Model specification	R-squared=0.414, Adj. R-squared=0.383 F _(7,134) =13.52 (p<0.000) Durbin-Watson=2.003; Kolmogroff-Smirnov (0.060; p=0.200); cook's distance <1						R-squared=0.379, Adj. R-squared=0.350 F _(6,132) =13.41 (p<0.000) Durbin-Watson=2.05, Kolmogroff-Smirnov (0.051; p=0.220); cook's distance <1					

Source: Field study, 2017.

Education level of the trainees fails to influence change in knowledge and skill development. Practically, educational variations among the trainees were minimal and in Bangladesh the education system is more theoretical than practical skill development. Nonetheless, the training content is entirely different from the contents of the study provided in general education, which might be a probable cause of not finding educational level as a significant determinant of knowledge and skill change. The traits of the trainers emerged as a very significant determinant of knowledge and skill change. The traits of a trainer included subject matter knowledge, discipline, eagerness in helping students, use of modern method of training, good behavior with the trainees, enhancing participation, patience, capability of motivation, and professionalism. It can't be overemphasized that all these characteristics are very crucial for an instructor to successfully transferring knowledge and skills. It is also evident from the findings that the changes in knowledge and skill have direct relationship with the location of training centers. The youth training centers under DYD differs significantly in terms of capacity, resources, and geographical coverage. This might be one the main reason of difference between trainings centers in influencing development of knowledge and skill of the trainees.

4. Conclusions and Recommendations

The findings of this research revealed the fact that three months long DYD agricultural (livestock, poultry raring, fisheries and agriculture) trainings significantly changed incumbent's knowledge, skill, and attitude (KSA), where major development took place in knowledge dimension. It was also observed that knowledge and skill change varied significantly based on the location of the training center. The capacity of the trainer emerged as a very decisive factor for knowledge and skill change among the respondents. The major attitudinal change aspects were ability to create own job, equal rights of male and female, and individual initiatives to start a new enterprise.

In the light of these findings, this research put forward the following recommendations:

1. DYD agriculture training is significantly contributing to the development young people KSA, so more young people need to engage with the training for turning youth to human resources.
2. Trainer's capacity is a crucial factor on which training success profoundly relied on, hence trainer's capacity building through training and education in home and abroad needs utmost priority.
3. Training differs from education in a way that it emphasizes more on skill development than knowledge. This research found that DYD agriculture training is contributing more in knowledge development than skill. A curriculum with additional focus on skill development, along with the development of practical field work facilities in DYD training centers requires more emphasis.
4. Periodic evaluation of each training program under DYD is essential to improve the efficiency of training for the better development of incumbent's KSA

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