

An Assessment of the Effectiveness of Training Focusing on Behavior

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Abstract

Identification of the training effectiveness is essential for assessment of the outcome of the training. The objective of the study was to evaluate the effectiveness of Project Management training courses of National Academy for Planning and Development (NAPD). Kirkpatrick's (1996) levels of training evaluation model particularly behavior. This study used an epistemological research design. The study followed quantitative approach comprising of quantitative technique. Data were collected from primary and secondary sources. To collect data, purposive sampling technique was used. The population of this study was associated with the four core courses of NAPD of five different years those are being a part of the training system as trainees. Data processing and analysis incorporating descriptive analysis were done using SPSS 22 and MS excel software. The measurement and structural model were analyzed to validate the hypotheses using the latest analytical methods available in Smart PLS 3.0. The study found that the trainees provided positive response about the training arrangements and management of NAPD, they have gained sufficient knowledge about the different modules of the Project Management training courses, the trainees developed the capacity to demonstrate the improved job behavior in their respective workplaces and they could apply the gained knowledge appropriately in the workplaces and most of them utilized the specific knowledge of Project Management in different phases of development projects. It can be conferred that Project Management training courses organized by NAPD are considered to be effective.

Keywords: Project Management, Training, Effectiveness, Behavior

INTRODUCTION

Capacity development of the human resource is a prime concern for all types of organizations for their overall development. Training is the vital instrument for human resource capacity development. This study is concerned about the need and effectiveness of such initiative. Earlier studies also identify and illustrate the need for training in the workplace. According to Dixit (2017) the main three barriers are the lack of knowledge, skill and expertise for completion of a construction project. Chen et al. (2012) illustrated that the efficacy of a project team that can contribute their talents, knowledge, and skills toward finishing the project is crucial to the project's success. This study is concerned about the efficacy of the NAPD organized training courses on Project Management whether those courses met the desired objectives. However, there are versatile findings about the significance of training effectiveness can be found in the earlier literature. Farjad (2012) outlines that evaluation aims that the change in the staff behavior and modification required in the organizational structure can be determined. Earlier studies identified that, Kirkpatrick model was extensively used to evaluate the training effectiveness. For example, Smidt et al. (2009) identified that one approach for

measurement of training impact which was developed by Kirkpatrick (1996) was a four level training evaluation model comprising of reaction, learning, behavior and result. Similarly, Ferdous & Razzak (2012) identified that the most widely used training evaluation model was created and improved by Kirkpatrick (1994).

METHODS

The study was exploratory in nature and followed quantitative approach comprising of questionnaire survey method. To carry out the study, both primary and secondary data were gathered. The primary data was gathered by a questionnaire survey. Reports, books, journals, articles, newspaper reports, course contents, related documents and websites etc. were used as secondary sources of data. The study was mainly correlational in nature as the relevant data were collected and variables were analyzed according to the conceptual framework. Simultaneously due to the fact that data were gathered at a particular point in time, the study was cross-sectional in nature. With the use of FGD, a pilot study involving 15 participants was carried out for questionnaire preparation comprising trainees of Project Management training course of NAPD who represent govt. organization and implement development projects, academicians and training consultants conferring to Churchill (1979) who identified that the seventh step of questionnaire development process is the pretesting the questionnaire and revision if necessary. Even though the questionnaire was ultimately given out over the phone or through the mail, most authors recommend conducting the initial round of pretests by personal interview. For identifying sample size of the pretest, Zaltman & Burger (1975) recommend that sample to be small and Ferber & Verdoorn (1962) suggest that a sample of 12 is satisfactory. All of the questionnaire's items were subjected to participants' feedback during the FGD. Final questionnaire was developed based on the result of the pilot study. This study specifically examined the NAPD's Project Management training courses' efficacy using Kirkpatrick's training evaluation model. Ali & Mawa (2019) identified that considerably the most well-known model for assessing and analyzing training outcomes is the Kirkpatrick Model (1998). The study area was predetermined. Major institutions those represent the trainees constitute around 497 known population/respondents were included in the sampling frame. From them, a representative sample was surveyed. Traditionally, offices of government organizations are spread around Bangladesh. So respondent's permission from their authority, geographical distance and suitability of the researcher was considerable issue as well. It was ensured that both male and female participants were included in the sample. The researcher collected data in 2018 with the help of designated and trained data collectors. Over 497 respondents were selected to send the questionnaire used in the cross-sectional survey associated with the four Project Management training courses of NAPD who took part in the training system as trainees. The researcher believes that the given distinctive social and cultural setting of Bangladesh, the data collection methodology is unique (Dubey et al., 2019). An effective response rate of 40.77% was achieved after two waves of data collection, which yielded 389 complete and usable responses. The researcher compared the data gathered in two waves to look for any signs of non-response bias. Two waves were compared using the t-test: early waves are intended for early respondents, and late waves are intended for those who required a reminder or more time to answer to the survey.

RESULTS

Table 1: Demographic profile of the respondents

Variables	Population characteristics	Trainee	
		Frequency	Percent
Gender	Male	179	86.06
	Female	29	13.94
Education	Bachelors	95	45.67
	Masters	112	53.85
	PhD	1	0.48
	Diploma	0	0.00
Experiences	Below 5 Yrs.	5	2.40
	5-10 Yrs.	81	38.94
	11-15 Yrs.	50	24.04
	Above 15 Yrs.	72	34.62
	Nil	-	-
Total	-	208	100

It can be illustrated from table that the gender distribution of the trainees’ respondents illustrates that among the trainees, representations of the males (86%) are much higher than the females (14%). So it can be depicted that more male participants are being trained in Project Management training than the females. In respect of educational qualification of the respondents the most of them hold the master’s degree (53.85%), a small portion (0.48%) of them hold the doctorate degree. When NAPD seeks nomination for Project Management Courses to different organizations the minimum qualifications required for the trainees are masters or graduates with two years of working experience. So it can be conferred from the distribution that it matches the requirement. In respect of the experience level of the respondents, it can be identified from the distribution that senior and mid-level officers (35% and 39%) are coming to training to enrich their project management expertise.

Table 2: Work behavior of the trainees of the Project Management Courses

Perspectives of Kirkpatrick’s Model	Factors	Strongly Agree n(%)	Agree n(%)	Indifferent n(%)	Disagree n(%)	Strongly Disagree n(%)
Behavior (BVR)	Utilized materials after pursuing the training course (BVR1)	44(21.2)	126(60.6)	23(11.1)	14(6.7)	1(0.5)
	Believe that imparted knowledge is useful for respective organization (BVR2)	74(35.6)	113(54.3)	16(7.7)	4(1.9)	1(0.5)

The participants' behavior makes up Kirkpatrick's model's third level of evaluation criteria. Regarding this behavior represents the job behavior. Utilization of the concepts and techniques in the job situation is important for ensuring the efficacy of the training. After knowledge acquisition of trainees from the training it is required that they are capable to utilize the gained knowledge, whether they have demonstrated any change in the job behavior in their respective job situation. Table 2 depicts the workplace behavior of the Project Management Courses’ trainees. The data makes it clear that the majority of trainees got the ability to exhibit better work behavior in the workplace like using the training materials (BVR1 81.8%) and believe that imparted knowledge is useful for respective organization (BVR2 89.9%). There are disagreements among some of the trainees about these two aspects (BVR1 18.2%, BVR2 10.1%). They were unable to

effectively apply what they had learned. In order to remedy the situation, NAPD must enhance the program's structure.

Table 3: Trainees’ responses about most preferred to least preferred training methods

Trainees' Responses about most preferred to least preferred training methods							
	Training Methods (RTN8)	Rank Order					
		Rank-1	Rank-2	Rank-3	Rank-4	Rank-5	Rank-6
1	Lecture	83	37	33	28	6	13
2	Case Study	42	43	55	35	15	3
3	Role Play	3	11	24	43	61	23
4	Simulation	2	8	19	21	45	66
5	Field Visit	23	41	41	36	19	18
6	Group Work	51	61	33	30	16	8

Table 3 illustrates the trainees’ preference on the training methods (RTN8). The trainees identified different methods suitable for training. Methods are ranked in accordance to their preference. These are arranged as most preferred method to least preferred method according to their responses from rank1 to rank6. The survey unambiguously indicates that the trainees preferred training methods according to ranking are: Lecture (83), Group Work (61), Case Study (55), Role Play (43, 61) and Simulation (66). So the trainees preferred combination of lecture and participatory methods in the NAPD's project management training programs.

Table 4: Ranking for most to least important factor to consider in selection of Project Management training

S/ N	Factors	Rank Order							
		Rank-1	Rank-2	Rank-3	Rank-4	Rank-5	Rank-6	Rank-7	Rank-8
1	Duration of Training (RTN5)	32	11	20	37	46	27	8	1
2	Training Material (RTN6)	30	46	47	37	18	10	4	0
3	Cost of Training (RTN7)	9	8	12	24	30	47	34	5
4	Trainer (RTN2)	28	37	44	48	18	7	3	0
5	Training Methods (RTN8)	47	64	37	20	17	5	1	0
6	Curriculum	53	31	31	22	22	30	4	1
7	Location (RTN9)	8	11	13	14	19	31	64	3
8	Other	6	3	2	1	1	3	15	20

Table 4 outlines the importance of the factors to be considered by the trainees for selecting and enrolling in the training programs for project management. The participants selected the factors according to the importance. They identified the factors according to their importance from rank-1 to rank-8. So we can conclude that factors to be considered for the selection and enrollment in the Project Management training course can be graded as: training curriculum (53), training methods (RTN8) (64), training material (RTN6) (47), trainer (RTN2) (48), duration of training (RTN5) (46), cost of training (RTN7) (47), location (RTN9) (64) and other factors (20) like nomination, food support, skill, multi sectorial reasons and personal interest. It is evident from the analysis that the training quality is an important criterion for trainees’ enrollment in any training course.

DISCUSSION

Measuring the project management training effectiveness identifies the appropriate training initiative for the improvement of officials' capacity which would cater the requirement of the development projects of the country. The data analysis shows that the majority of the participants believed they had learned sufficiently about the various modules of the project management training course. Afsana et al. (2015) found that it is statistically proven that training significantly influences on employee's job performance. Rahman (2016) found that the trainee identified noticeable change in his knowledge level about the banking industry after receiving training. Assessing the trainees' behavior on the job after training constitutes the third level of evaluation and this was the third research objective. The study found that in their different jobs, the majority of the trainees gained the ability to exhibit the enhanced job behavior. This shows that they have improved in their methods for carrying out the specific task. Since their learning was sufficient, they were able to demonstrate better job knowledge, which supports the model. It is statistically proven that training significantly influences on employee's positive attitude (Afsana et al., 2015). Borate et al. (2014) illustrated that the trainees attain capability of gaining and applying practical knowledge in their respective field after the training. Some participants struggled to correctly apply the knowledge they had learned. Begum & Biswas (2010) depicted that some of the respondents identified lack of field orientation, practical information and theoretical nature of contents for not achieving the course objectives satisfactorily. They likewise suggested that selection of relevant participants for the course can overcome this problem. Thus, course design should include hands on practice sessions for resolving such issues. Hamiduzzaman (2012) identified that in respect of formulation and completion of a plan the crucial factors are accountability, administrative changes, training initiatives, adequate resource allocation, and public awareness. Begum & Biswas (2010) illustrated that about three fourths of the respondents utilized the gained knowledge, skill and attitude in practical situation either directly or indirectly. The confirmatory factor analysis also has revealed that reaction has a profoundly favorable effect on learning. Further, learning significantly influences behavior in a positive way as well. Similarly, the impact of behavior on result is also very favorable. Borate et al. (2014) discovered that the hypothesis results interpret that there was significant influence on next level which is reaction to learning, learning to behavior and behavior to result. It indicates that the training program provided by NAPD on project management has been proved effective. The outcomes of confirmatory factor analysis have been endorsed by the studied model of this paper. The four stages of the training effectiveness model, which was developed by Kirkpatrick, are sequentially interconnected in such a way that reaction will impact learning, learning will impact behavior, behavior will impact result (Kirkpatrick & Kirkpatrick, 2016). Therefore, the fundamental agenda of the study to assess the training courses on Project Management of National Academy for Planning and Development to assess the programs' effectiveness has successfully accomplished with the Kirkpatrick model. The outcomes also have been endorsed by the previous studies of (Fregonese et al., 2018). It is interestingly noted that reaction has no positive relationship with training effectiveness. Islam & Hosen (2021) identified that course effectiveness is not only dependent on the training content and its delivery. Sahni (2020) found that the training environment has the weakest association with training effectiveness and also iterated that training component had insignificant relation with training effectiveness. Similarly, learning has no impact on training effectiveness. Quinton et al. (2022) depicted that

learning results were not linked to either involvement or attendance. Rahman (2019) explored that training environment has no significant impact on training effectiveness. This is because there is an interconnected relationship among the four levels of training evaluation model. Missing one or two elements among them might produce no significant relationship on training effectiveness. The outcomes, it is worthy to mention that, validate and explained the Kirkpatrick model for evaluating training (Kirkpatrick & Kirkpatrick, 2016). If the researchers intend to assess training's effectiveness in the future, they may use the extended Kirkpatrick model proved in this paper. Therefore, this extended version of Kirkpatrick model-reaction to learning, learning to behavior, behavior to result, and result to training effectiveness-can add a new horizon in the training effectiveness evaluation knowledge domain.

CONCLUSION

Evaluation of training is essential for determining the training's value and whether it helps to increase productivity. The project management training programs offered by NAPD are regarded as being effective based on the perceptions of the majority of respondents and the four phases of training evaluation framework of Kirkpatrick's (1996). The study found that proper understanding of the training contents was admitted by the trainees behavior measurement. It was found that the trainees performed in various project management stages of the development projects.

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