RESEARCH ARTICLE

SOFT SKILLS TRAINING PROGRAMME: EVALUATION OF ENGINEERING STUDENTS' EXPECTATIONS AND EXPERIENCE

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ABSTRACT

The training evaluation of this paper is to find out how soft skills training programme can be evaluated from the perspective of the students of engineering colleges to test its effectiveness. The literature review highlighted that the effectiveness of a training program can be fairly measured by comparing the pre-training expectations and knowledge of students with their post-training experience. This paper explores the effectiveness of a training programme to offer 108 students of an engineering college. The required data were extracted from the students through a two-stage questionnaire based on levels of Kirkpatrick's model of training evaluation. The study proposed to test whether the efficiency gap is subjected by the social background, gender and English language skills of the students. The chi-square test discovered that the demographic variables are independent of the efficiency gap. A paired sample- t-test was conducted and it has been concluded that the students did not find the programme more effective. The factor analysis indicates that the grouping of the variables into factors fairly matches with the four levels of Kirkpatrick's model of training evaluation with certain exceptions. Fairly, a multiple regression analysis was conducted which revealed that the factors extracted in factor analysis are significant in explaining training effectiveness.

Keywords: soft skills, training, effectiveness, evaluation

INTRODUCTION

Soft skills are those critical to an employee's ability to work smarter and deal with people at the emotional level. They build and sustain effective relationships that will result in mutual gain. An insightful training programme acts as a vehicle to enhance employee skills and enable them to perform better in their job. The soft skills training programmes are conducted to enhance and increase the performance level of a student to develop 'people skills' to meet the current as well as future needs of industry and businesses, to ensure effective utilization of available resources and integrate personal goals, which results in productivity improvement, greater workforce flexibility, savings on resources and principal costs, more motivated workforce and improved quality of the final product or service in the professional colleges.

Training and development are extremely crucial to the employees, the organisation and their effectiveness. Training evaluation has been the main focus of many studies in the last decade. The comprehensive examinations, exit interviews; class projects; portfolios, surveys of student alumni, and students; pre-test/post performance reports; development rates on career development certification programmes and standardized tests, scores on locally developed achievements assessments; and career placement rates are available to assess soft skills training. Peers' evaluation is one of the best methods to assess the students' strengths. Learning outcomes of soft skills need to be assessed through interactive evaluations.

It is pointless to assess the following conventional methods because the skills they cannot be contained in simple answers. To properly evaluate soft skills, the teachers must assign evaluations that demand real-world demonstrations of learning: debates, oral presentations, persuasive essays etc.

Assessing the effectiveness of training programme is the most important place it is done to see how well the goals have been met and whether it is the best method for accomplishing the goals. This paper is based on evaluation of training programme as expected and experienced by the students of engineering colleges who are pursuing pre-final year to check whether the training programme has been thriving in producing the result that was anticipated the students are the main basis of getting the genuine opinion for the training effectiveness. Thus, the paper has given prominence to their views.

The process of examining a training programme is called training evaluation and no training programme can be said organised completely without evaluating its effectiveness. Harper & Bell (1982) refer to the planned collection, collation and analysis of information to enable judgments about value and worth. Williams (1976) defines evaluation as the assessment of value or worth. Evaluation checks whether training has had the desired effect and ensures that participants are able to implement the learning in their respective tasks. Evaluation is a comparison of an observed value to a standard or criteria of comparison (Holli and Calabrese 1998). Evaluation is a systematic process to determine the worth, value, or meaning of something (Philips 1991). Training evaluation is a systematic process of collecting and analysing data in order to determine whether to what degree objectives were or are being achieved (Boulmetis and Dutwin 2000) and to what extent the training programme has met its stated performance goals and objective (Schalock 2001).

The training unit, in a successful programme understands the organization's strategic direction and can design and implement a creative way of moving people in that direction. Training is where skills are developed, attitudes are changing, ideas evolve and organization is reinvented. It often takes a significant investment to train a critical mass of employees. Ultimately training must be judged its impact on the functions of the organisation.

There is a possibility that the demographic characteristics like social background, gender and English language skills may affect their views on the effectiveness of training programmes. If the target listeners are giving feedback on a particular aspect, then, the things can be rewarded as per their expectations and experience.

Over the years, researchers have developed systematic procedures for training evaluation. Some of them are presented here.

1. Kirkpatrick's four level model
2. Hamblin's five level model
3. Warr's framework for evaluation
4. Virmani and Premila's model of evaluation
5. Peter Bramely's model of evaluation
6. David Reay's approach to evaluation
7. Aimao Zhang's peer evaluation model

Among these widely accepted framework is four stage training evaluation model proposed by Kirkpatrick (1959).

In the words of Kirkpatrick (1971) 'to evaluate is to determine the worth or more precisely the effectiveness of the training programme. He based his model on reaction, learning, behaviour and outcomes.

1. **Reactions:** Measures how participants have reacted to the training.
2. **Learning:** Measures what participants have learned from the training?
3. **Behaviour:** Measures whether what was learned is being applied on the job.
4. **The results:** Measures whether the application of training is achieving results.

Effectiveness is critical. Donald Kirkpatrick developed a four –level a four level model valuation

Kirkpatrick's Four levels of Evaluation
Each successive level of evaluation builds upon the evaluations of the previous level. Each successive level of evaluation adds precision to the measure of effectiveness but requires more time consuming analysis and increased costs.

The outline of the rest of the paper is as follows: Section II deals with empirical review of literature, section III highlights the research methodology used in the paper, section IV describes the analysis of data and the conclusions and influences have been discussed in section V.

Review of literature
Training is the development process of imparting

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knowledge, skills and abilities of employees. Training is measured as a technical skill enhancement programme of employees. Training is defined as a planned learning experience designed to bring about permanent change in an individual's knowledge, attitudes, or skills (Campbell et al. 1970). The studies convey development enhances behaviours and improves performance and training is more contemporary oriented; its focus is on individuals' current assignments, enhancing those specific skills and abilities to immediately perform their jobs. Employee development, on the other hand, generally focuses on future jobs in the firm. Effectiveness is defined as the ability of producing a preferred effect. Effectiveness of training and development can be measured by average time taken to analyse a problem, the success rate of a customer engineer, the overall productivity of employees, return on investment (ROI) and customer satisfaction.

Training evaluation is often defined as the systematic process of collecting data to determine if training is effective (Goldstein & Ford, 2002; Noe, 2002). According to Brown G. Kenneth & Gerhardt W. Megan (2002), evaluation should include procedures that ensure alignment of a training activity with the organization's strategy. Organizations spend an immense amount of time and money on training in order to facilitate employee's learning of job-related competencies (Casio, 2000; Noe 2006). As a result of the financial investment organizations make in training, it is important to provide evidence that training efforts are being fully realized (Casio, 2000; Dowling & Welch, 2005). According to Leach P. Mark & Liu H. Annie, 2003, to evaluate training investments critically, organizations need to know how reactions, knowledge acquisition, and behaviour change impact outcomes. Similarly, organizations need to know the value of measuring training at multiple stages.

Earlier studies Brameley and Kitson (1994) pointed out that firms and institutions use different levels of analysis to evaluate training effectiveness. Some follow the traditional approach focusing students' reactions to a training programme for content, instruction, delivery, etc. while others try to measure outcomes of the training programme in the form of skills, knowledge etc. and still others seek to measure net financial effects of the training programme.

American Society for Training and Development (ASTD) in assessing the nationwide prevalence of the importance of measurement and evaluation to the Human Resources Department (HRD) executives by surveying a panel of 300 HRD executives from a variety of types of U.S. organizations. Survey results indicated the majority (81%) of HRD executives attached some level of importance to evaluate and over half (67%) used Kirkpatrick Model. Sinha (1974) has observed during his research analysis on attitudinal changes after the training programme that the training can show visible and effective results and depending on the nature of the training, participants could be helped to improve upon existing qualities and develop new skills. Those who received the training increased their sales by an average of 7 % during the ensuing six month period, while their counterparts in the control group showed a 3 % decrease in average sales.

Bruwetheide and Duncan (1985) reported two ways that can be used together for evaluating training results in terms of observable change in trainee behaviour. The two methods are self report behavioural checklists and analogue testing. In a survey of HRD interventions, Rao and Abraham (1986) reported with concern that the need to post training follow up is completely ignored. Noe (1986) presented a comprehensive model for studying how trainees' attribute and attitude affect training effectiveness. The model points out four conditions for necessary for learning: trainees must believe that assessment of their strengths and weakness is accurate, they must believe that they can master the training content and that mastery is related the attainment of the desired outcomes. Moreover, they must value effective job performance and they must view their work setting as providing the necessary resources to perform the job well.

Krishna et al. (1983) observed following dysfunctional perceptions about the training programmes among the trainees: training programmes are paid holidays, nomination to training programme is a reward, to be nominated for the training programme one must be idle or influential etc. According to Bramley (1994), measuring the effectiveness of a training programme at the reaction level and or the levels of skills learned or knowledge gained are the most common approaches. Reddy (2002) while carrying out a study for effective human resource training and development, observed that training programme evaluation constitutes a three stage system. The first stage is the period before the learning experience during which trainee will have

feelings and expectations about the learning course. The second is the 'learning phase' and the third is the time 'afterwards' back on the job when the learning is supposed to be integrated into his job performance. Thus, the pre-training evaluation includes testing of the training of the existing knowledge, skills and attitudes. In the post-training evaluation of job improvement plan can be taken up after six months or one year after the completion of the training.

A case study of study of the evaluation of the executive training at NLC Ltd by Selvam (2003) showed that out of the seven major factors adopted for evaluation of training, method of presentation dominated the rest of the major factors contributing significantly to the effectiveness of training for 13 programmes, programme content, instructional materials and the role of the trainer as a facilitator or learning closely followed contributing significantly to the effectiveness of 12 out of the 15 training programmes studied. Transfer of learning to the workplace as a factor contributed significantly to only 4 out of the training programmes. Training, therefore, needs to be assessed and evaluated in regard to its effectiveness to deliver predetermined results.

The procedures used in the paper are skills and knowledge gained student reactions to the training course, perceived usefulness of the training course and training efforts to gain skills and knowledge.

RESEARCH METHODOLOGY

The present paper is intended to find out whether the demographic characteristics (like social background, gender and English language skills) of the students attending training programme influence their perspectives on its effectiveness. Further to check whether the experiences of students on to effectiveness after the training programme exceed their expectations on the same before training programme. Finally to test the variables (and their grouping into factors) influencing the effectiveness of training programme defined on the basis of the theoretical framework of Kirkpatrick's model of training evaluation and to discover the factors that are significant in explaining the effectiveness of the training programme.

This model was used to test the effectiveness of training programmes as expected before and experienced after the training programme. There were 17 traits categorized into four levels as described below:

1. Reaction: It contains traits namely relevance of the subject to be covered in the training on the job, presentation of the content in an interesting manner, effective communication and preparation of instructions, quality of teaching aids, appropriateness of facilities in the training, duration of the training programme and applicability of the knowledge gained in the training programme to the job.

2. Learning: it contains coverage of the topics needed for learning, the importance of knowledge gained in the training programme, rehearsal and test checking of new skills with the trainer/teacher

3. Behaviour: The traits covered under this category are changes in attitude and behaviour, skills of time management, and team participation at work.

4. Outcome: The traits covered under this category are productivity improvement, decision making and interpersonal communication, return on investment and target achievement a job. Apart from the above mentioned 17 traits, the final trait was overall efficacy.

The sample design

An engineering college has been taken at an institution for conducting this study. This study has been taken into consideration a particular soft skills training programme of the college (conducted for final and pre-final year Bachelor of Engineering and Bachelor of Technology students) for testing its efficacy. The decision to select this particular college was taken because the head of this institution permitted this study successfully on their students.

The college has arranged this training programme through its 'Training and Placement Cell' for its students in various branches and phases as per the priority, convenience and availability of the trainers and students during even semesters. This one week programme is compulsory for all the students, who attended the programme are alone permitted during placement drives, as a result full attendance was obtained.

The study required a training programme with a moderately long duration so as to compare the pre-training and post –training results effectively. Thus, this soft skills training programme was finalized for the study. A comparison of more than one training programme can be done only if the programmes are

comparable in terms of its characteristics like duration, content, participants, training content, etc. The training course was offered by a single soft skills trainer. The training content was distributed to the trainees and various tasks based content like classroom lectures, simulation exercises, mini projects and programmed instructions were used to train the students.

The choice of the sampling method was influenced by the objectives of the study, time constraints and the nature of the problem to be investigated. The college wanted to make their student placement oriented, to face the campus interviews successfully and further to get into the industry and businesses and sustain in the future. Thus, a training programme was scheduled. The programme has been repeated several times to cover all the students of the college. Hence, a sample has been chosen from among all the students who have undergone the training programme until the present incidence of the same training programme. Thus, the population in this study is the students of the college who have attended the training programme till scheduled date. The sample size was decided as 108 students (selected to attend the present training programme).

The training programme for conducting this study was selected on the easy availability and accessibility of the students through convenience sampling (Non-probability sampling).

Data collection: The data were collected from the students (students of the engineering college) through a questionnaire which had three major sections namely:

i) Demographic information of the trainees like social background, gender and English language skills.

ii) Expectations of students the soft skills training programme one week before attending the training programme on 18 traits.

iii) Experience of students for the training programme two weeks after attending the training programme, on the same 18 traits.

Measurement scale: The questionnaire consisted of a series of statements, where the student respondents needed to provide answers in the form of agreement or disagreement to express their attitude (expectations and experiences) towards the training programme. A Likert scale was used so that the respondent could select a numerical score ranging from 1 to 5 for each statement to indicate the degree of agreement or otherwise. Where 1, 2, 3, 4 and 5 denote 'Strongly Disagree', 'Disagree', 'neither agree' nor disagree (Neutral)', 'Agree', and 'Strongly disagree' respectively.

ANALYSIS OF DATA
Reliability analysis
An analysis was conducted for checking the reliability of the questionnaire and the results were obtained. The Cronbach's alpha (a measure of reliability) was calculated for both the sections of the questionnaire separately. According to Hair, et al. (2007), these coefficients (0.729 and 0.862) indicated data reliability as they meet the minimum acceptable level of 0.7.

Chi-square analysis
The gap between expectations and experience for the both 18th trait on overall efficacy can be classified broadly into two categories namely.

* **No gap:** It means that expectations and experiences are matching which occurs when the gap is 0.

* **Gap:** It is defined as the absolute difference between experiences score and experience score.
Chi-Square test of independence (Age and efficacy gap)

Hypothesis 1
H0: Efficacy gap and social background are independent (Null hypothesis)
H1: Efficacy gap and social background are dependent (Alternate hypothesis)
Chi-Square test of independence (Gender and efficacy gap)

Hypothesis 2
H0: Efficacy gap and gender are independent (Null hypothesis)
H1: Efficacy gap and gender are dependent (Alternate hypothesis)
Chi-Square test of independence (English language skills and efficacy gap)

Hypothesis 3
H0: Efficacy gap and English language skills are independent (Null hypothesis)
H1: Efficacy gap and English language skills are dependent (Alternate hypothesis)

The values of chi-square statics obtained from the chi-square distribution table for all the combinations are 11.345, 6.635 and 9.21 in that order and the calculated chi-square static values are 0.56567, 2.7862 and 4.889 in that order which lie the Non-rejection region. Thus, the null hypothesis is not rejected and it can be concluded that efficacy gap and social background, gender and English language skills are independent on the basis of statistical evidence at the 1 % level of significance.

The results indicate that the demographic characteristics (like social background, gender and English language skills) of the students attending training programme do not influence their perspective on its effectiveness. Results of Chi-Square are presented in Table 1.

Table 1 **Results of Chi-Square Analysis**

S. No	Demographic variables	Chi-square statistic
1	Social background	0.5656<11.345 (Insignificant)
2	Gender	2.78<6.635 (Insignificant)
3	English language skills	4.88<9.21 (Insignificant)

Paired sample t- test

One of the objectives of this study was to find out the difference between the pre-training responses (expectations) and post-training responses (experience) of the students in evaluating the efficacy of the training programme.

The population standard deviation was unknown. Thus, a paired sample t-test was appropriate for this purpose. Since the sample size was greater than 30, the t-statistic tended to follow a normal distribution, so that the critical region of the test is based on normal distribution. The mean efficacy score of students before the training programme (expectations) was calculated as:

Mean efficacy score = (Sum of scores given to questions 1 to 17) / 17.

The mean efficacy score of students after the training programme (experience) was also calculated in a similar manner for all the students.

The 18th trait for overall efficacy of the training programme was not taken into consideration in the t test analysis as the results of paired sample t-test had to be compared with the efficacy gap.
Ideally, the training programme can be said to be effective only if the experience of students exceeds their expectations. Since the differences of students' scores between their expectations and experience were to be analysed a one-sided alternative hypothesis was chosen for testing.

Let μA and μB represent the average level of expectation and an average level of experience respectively in the population of all employees who have undergone training programme till date.

Null hypothesis H0: $\mu A = \mu B$ (The average level of students' expectation and their experience is same.)

Alternate hypothesis: H1: $\mu A < \mu B$ (The average level of students' expectation is less than their average level of experience.)

Since the critical region for 0.05 level of significance from the normal distribution table lies in the interval of (-infinity to -1.64) respectively, it indicates that the sample mean (=2. 727) lies in the non-rejection region. Hence, H0 cannot be rejected. Since the test of H0 against H1 gives, also a test for H0: $\mu A \mu B$ at a maximum level of significance (0.05), one can conclude that the experience their expectations. The results of paired sample t-test are presented in Table 2.

Table 2 **Results of paired sample t-test**

		Paired sample statistics			Paired Differences			t	df
		Mean	N	Std. Deviation	Mean	Std. Deviation	Std. Error Mean		
Pair	Expectations	4.061	108	0.75916	0.2282	0.86981	0.0837	2.72	107
	Experience	3.8328	108	0.55212	0.2282	0.86981	0.0837		

Factor analysis

The gap in the scores of students for each trait (before training and after training) provided the clearest picture of their view on the effectiveness of the training programme. Since the gap analysis is based on the differences in the scores of students between their pre-training expectations and post training experience indicating its effectiveness, a factor analysis was applied for grouping the variables into factors based on this gap data.

The above traits were divided into the above mentioned categories (Reaction, learning, Behaviour and Outcome) theoretically on the basis of the Kirkpatrick model of training evaluation.

The factor analysis was conducted through a method called as principal-component's method as it explained more variance than would the loadings (values that explained how closely the variables were related to each one of the factors discovered) obtained from any other method of factoring.

While doing the analysis, it was observed that the gaps gave the absolute value of gap scores. These absolute differences were interrupted on the basis of their signs (positive- Expectations met and Negative –Expectations not met). Varimax rotation was used to maximize the variance of the loadings within each factor to simplify the columns in the factor analysis. It helped in developing clearer factor loading patterns with some variables having loadings on a particular factor and other variables having a loading nearer to zero. The factor loading of rotated components is presented in the Table 3.

Table 3 Rotated component matrix

S. No	Traits	Component			
		1	2	3	4
1	Consequence Gap	0.646	0.346	0.185	0.284
2	Significant Gap	0.746	0.182	0.195	0.364
3	Trainer Gap	0.708	0.419	0.193	0.124
4	Aids Gap	0.804	0.216	0.269	0.154
5	Facilities Gap	0.644	0.445	0.322	0.147
6	Schedule Gap	0.450	0.746	0.377	0.061
7	Appropriateness Gap	0.450	0.746	0.377	0.061
8	Exposure Gap	0.096	0.655	0.160	0.519
9	Importance Gap	0.325	0.646	0.170	0.416
10	Practice Gap	0.254	0.746	0.065	0.295
11	Approach Gap	0.161	0.256	0.780	0.281
12	Time Gap	0.263	0.145	0.794	0.213
13	Collaboration Gap	0.221	0.151	0.854	0.069
14	Efficiency Gap	0.496	0.183	0.427	0.521
15	Assessment Gap	0.526	0.199	0.522	0.416
16	Return Gap	0.316	0.393	0.252	0.695
17	Aim Gap	0.381	0.289	0.429	0.616

The results of Varimax rotation are summarised in Table 4.

Table 4 Summary of factors extracted after analysis

Items in Factor 1. Improvised Reaction	Items in Factor 2.Improvised Learning	Items in Factor 3. Improvised Behaviour	Items in Factor 4. Improvised Outcome
1. Consequence	6. Schedule	11. Approach	14.Efficiency
2. Significance	7. Appropriateness	12. Time	16. Return
3. Trainer	8. Exposure	13. Collaboration	17. Aim
4. Aids	9. Importance		
5. Facilities	10. Practice		
15. Assessment			

The grouping of variables according to Kirkpatrick's model of training evaluation was as mentioned in Table 5

Multiple regression analysis

The results of the factor analysis were carried forward by which the four independent variables (Factor 1, Factor 2, Factor 3 and Factor 4) were used to predict the dependent variable (overall efficacy gap) by multiple regression. The regression equation is as follows:

$$Y = \alpha + \beta_1 F_1 + \beta_2 F_2 + \beta_3 F_3 + \beta_4 F_4.$$

Where, Y= Overall efficacy gap=Students' clear perspective on the effectiveness of training programme (Post training score for 18th item- Pre-training score for 18th item).

α = Intercept.

F_1 = Improvised reaction

F_2 = Improvised learning

F_3 = Behaviour

F_4 = Improvised Outcome.

$\beta_1, \beta_2, \beta_2, \beta_4$ = Slop associated with F_1, F_2, F_3, F_4.

Results of regression analysis are presented in Table 6 and the results of model fit and model's explanatory power have been presented in Table 7.

Table 5 Summary of variables into factors as per the Kirkpatrick's model

Items in Factor 1. Reaction	Items in Factor 2. Learning	Items in Factor 3. Behaviour	Items in Factor 4. Outcome
1. Consequence	8. Exposure	11. Approach	14.Efficiency
2. Significance	9. Importance	12. Time	15. Assessment
3. Trainer	10. Practice	13. Collaboration	16. Return
4. Aids			17. Aim
5. Facilities			
6. Schedule			
7. Appropriateness			

Table 6 **Regression coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Consonant)	278.290	0.065		4.290	0.000
	REGR factor score 1 for analysis 1-improvised reaction	0.266	0.065	0.304	4.087	0.000
	REGR factor scores 2 for analysis 1 Behaviour	0.132	0.065	0.151	2.030	0.045
	REGR factor scores analysis 3 1- Behaviour	0.305	0.065	0.350	4.696	0.000
	REGR factor score 4 for analysis 1- improvised outcome	0.382	0..065	0.437	5.87	0.000

Table 7 **Coefficient of determination and F-value**

Model	R	R Square	Adjusted R Square	Std. Error of the estimate	F	Sig.
R	0.655	0.429	0.407	0.67292	19.337	0.000

Thus, overall efficacy depends on these four factors, $(F_1, F_2, F_3,$ and F4)

The factors included in the multiple regression models are explaining 42.9 % variation in the overall efficacy of the training programme.

Thus, one can conclude that regression model is significant to explain the overall efficacy of the training programme.

CONCLUSIONS

This paper examined empirically four levels of measuring training effectiveness with the help of a questionnaire using a sample of the trainees who attended the training programme. The first level focused on student's reactions to the training programme. The second level focused on knowledge and skills gained from the training. The third level focused on the changes in the task behaviour of students after attending the training. The fourth level focused on the changes in the functioning of parts or the entire college which have resulted from changes in the task behaviour originating in training. The study also attempted to identify some of the variables that help in examining the achieved level of effectiveness.

* The results of chi-square analysis point out those demographic characteristics of students like social background, gender and English language skills are not statically significant when it comes to determining the overall efficacy of the training programme. The demographic variables do not influence the psyche of students for judging the efficacy of the training programme. The results of the paired sample-test analysis lead to the conclusion that the experience of trainees after training does not exceed their expectations before training. The experience of students after training in relation to their expectations before training had

made them conclude that the training programme is not effective.

* The result of factor analysis specifies that the factors extracted in this paper fairly match with the theoretical factors given by Kirkpatrick's model of training evaluation with the exception of the variables namely training schedule, applicability of the training programme and decision-making as a result of training, who shifted their positions. The names of the factors extracted from the factor analysis were Improvised reaction, improvised learning, and Behaviour and Improvised outcome. It can be conducted that Kirkpatrick's model of training evaluation holds fairly well in this context.

* The outcome of multiple regression analysis designates that the four factors namely Improvised reaction, Improvised learning, Improvised learning, Behaviour and Improvised outcome derived in factor analysis are statically significant in explaining the training effectiveness. These four factors can influence the trainees' views (have the potential to generate positive or negative feedback) on the efficacy of the training programme.

The consequences obtained in this study could be subject to some limitations as mentioned below:

* Since the responses were recorded on a Likert scale, there were no available means to verify the accuracy of the data collected. Thus, it was assumed that the data was error free.

* The ability to generalize the results may be affected by the size and composition of the sample. The college randomly selects some of its students at a time, to send them for training. The same programme has been conducted many times for other trainees in the past. However, the use of data on trainees during one year for the same programme may reduce the effect of a limitation.

* The analysis was limited to only one training programme in soft skills training up-gradation. It is possible that using the information on their training programmes may give different results.

Some avenues for further research are as follows:

* Since the training programmes make use of different training aids and methods (on the on campus and off campus tasks), there is a need to address possible effects of such training aids and

methods on measuring training effectiveness.

* The literature indicates that some institutions prefer to have on the soft skills training while others prefer to send their students to different training institutions. Therefore, there is a need to study possible effects of training locations on training effectiveness.

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