

# Training Need Analysis: A Study on Training Need Analysis at Flowtex Engineers

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**Abstract:** Flowtex Engineers is a heat exchanger manufacturing company, where research on Training Need Analysis (TNA) will be conducted. This study is being conducted to analyze the competency gaps of the employees in order to determine if there are training requirements in the company. Data is collected from the employees in the form of questionnaires which will be useful in determining the importance of training need analysis at Flowtex Engineers. Through this research project we will determine various aspects such as: if the company gives importance to training or not, if the employees have undergone training or not, the different skills that are given utmost importance at the company, the various skills that the employees already possess, the various problems faced during training etc. The main objectives of the study are: 1) To understand the various training activities conducted at Flowtex Engineers. 2) To find out the various training skills required for job performance. 3) To find out the skills possessed by the employees. 4) To analyze the gaps in the training requirements. We find that there is competency gap that is observed in certain aspects especially in communication, management and innovation. This study i.e., Training need analysis will not only benefit the company but also the employees in the end in making them more efficient and productive.

**Keywords:** Training, development, competency gap, upskilling.

## 1. Introduction

Training is a program that will help the employees/workers at Flowtex to gain a certain set of knowledge skills and talents which can help them to better their current performances.

Training not only benefits the company but also the employees as it will make their job easier and more efficient. Through training programs from the companies, they can ensure that their employees will be able to do their job better.

Due to various reasons such as technological advancements and increase in competition, the employees need to be trained to handle the particular jobs that are offered by the company. Therefore, with the help of training and development, the efficiency and productivity of the employees will be increased manifold. Many of the corporations or the bigger companies have hired specialists who train the employees for certain jobs. The training programs need to be pre-planned and sorted out to ensure that the employees are given tailored training, not only professional development but also personal development as well.

In the earlier days, training was not considered as important as it is today, but in order to achieve the goals and objectives of

the company training programs are extremely important. There are many factors that come into play when the management team are determining whether their employees require training or not. Training will help the employees and the company to achieve higher growth rate of the business.

More importantly it is essential to use training need analysis (TNA) to determine the performance gaps and whether the training materials are suitable and efficient or not. In conclusion the correct analysis and proper implementation needs to be conducted in order to make each of the workers happy and efficiently productive. Training need analysis will therefore help in bridging the gap between the current performance level of the employees and the expected performance level of the employees for the job. From the analysis that will be carried out one can determine the gap, figure out the resources required, sort out the training program and implement the results. It can also give the before and after SWOT analysis of the company. The strengths of the company will be higher, the weakness can be reduced and the employees that are trained could work on gaining various opportunities. For my study Flowtex Engineers company is taken as an example. The study helps in highlighting the training need analysis undertaken in the company and also helps in determining the various needs that are required based upon future competencies.

### A. Training need analysis in the heat exchanger industry

Training need analysis in manufacturing industries such as the heat exchanger industry is extremely important because: The employees/workers need to be able to handle the heavy machinery. They need to have knowledge about the types of heat exchangers that they will be manufacturing. They need to be trained for safety to avoid accidents and mishaps.

The analysis can easily determine the gaps in the performance of the employees and help in smoothening the progress of learning and developing the new skills and gaining knowledge that is required in manufacturing the heat exchangers in the company. The analysis helps in also determining various other aspects of the employees such as absenteeism, turn over's and grievances. These are also some of the problems that require training and development to solve and overcome.

There are a wide range of heat exchangers, the company can therefore analyze whether the employees /workers need training

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or not through training need analysis (TNA). The management can tailor cut the training programs in accordance with the needs and requirements of the employees based upon their current working performances. The heat exchanger industry is growing and there have been many new players in the industry which has driven up the competition therefore the companies need to ensure that proper training is given to the employees through training need analysis in order to meet the company goals and objectives.

In the heat exchanger industry, the products are serviced to various different types of clients from food industry, chemical industry, pharmaceutical industry, etc. hence it is very important to ensure that the products that are distributed and sold are of top quality with little to no faults. All this depends on the way that the heat exchangers are manufactured. Therefore, before introducing new employees in the heat exchanger manufacturing companies such as Flowtex, it is very important to conduct the training need analysis to determine whether the employees are fit for the job or not, whether they require training or not, if they do then the type of training that can be provided to the employees with the resources that the company has etc.

So, then the question is how can one identify training need in a company such as Flowtex Engineers?

Firstly, we need to determine the training that is already been given at Flowtex Engineers (which is mentioned below). Then through research; such as surveys and observations we can analyze and determine which areas of the company requires training and which do not. Through further observations we can determine the select employees that require training as well. Drawing up a map to devise a plan which will help in giving the necessary training to the employees be it safety training or some other.

At the end observation and feedback also play an important part in determining if the training programs/activities were efficient in helping the employees improve their performance. Communication is key in training need analysis and implementation of the same. Keeping an open communication channel with the employees in training will help in preventing misunderstandings and training issues. Encouraging the employees in communicating whether they need assistance is important.

The main issue with the manufacturing company in the heat exchanger industry such as Flowtex is that the employers are looking for workers who are skilled in many jobs and can perform a range of tasks instead of just one task in which the workers are skilled in. Depending on the skills that the workers will have to be trained in, training analysis is a time consuming and an expensive program with the involvement of trainers and supervisors. High employee/staff turnover is also an issue in training. The cost that has gone into training and training analysis will be all lost if there is high turnover observed in the company. Hence the consistently hard working and loyal workers need to be rewarded for their work. This will help the company in increasing the rate of employee retention.

## *B. Training at Flowtex Engineers*

In the month of May 2020 all the employees were given ISO awareness training by Mahadev Nilajkar sir for a period of 30 days. ISO are the international standards that are followed by Flowtex in establishing an efficient and quality management system which would therefore control the various operations relating to production and service.

In the same month 2020, 5S awareness training was provided to all the employees by Mahadev Nilajkar sir for a period of 30 days. The 5S refer to: Sort, set in order, Sweep, Standardize and Sustain. By providing this 5S awareness training the employees can work in a safe, clean and healthy environment which helps in increasing their productivity and make work more efficient.

Training on ISO documentation and awareness was also provided to Nitin, Naveen and Praveen sirs by Mahadev Nilajkar sir. For a company to become an ISO certified company, the company would have to provide documents detailing the internal processes, procedures and standards. These documents would therefore identify, determine and conclude whether the company is providing quality products and services.

Training on competency and skill measurement has been provided to Praveen and Narayan by Mahadev Nilajkar sir in the month of June 2020 for a period of 30 days. The capabilities of the employees are measured/determined to complete the job efficiently.

Knowledge on Calibration of instruments and knowledge on defect analysis: this training was provided by Mahadev Nilajkar sir and Sainath Nilajkar sir respectively.

Identification and traceability of raw materials and machine preventive maintenance: training by Mahadev Nilajkar sir.

Assembly and testing along with painting and packing: training by Sainath Nilajkar sir.

Time management and inventory control: training by Mahadev Nilajkar sir.

Before and after training the employees are under observation to see the effects/output of training on their performances. Almost a year of performance training and observations is carried out. Also, based on regularly carried out performance observations they are also given promotions based on their skills.

## **2. Research Methodology**

### *A. Need for the study*

In this project, I will be studying the competency gaps of the employees in order to determine the training needs requirement, if necessary, at Flowtex Engineers. This will help to bridge the gap between the skills required for the job and the skills possessed by the employees/workers at Flowtex. It will help the employees gain additional knowledge and skills for a particular task, project or job.

*Types of research design:*

*Descriptive research:* Provides systematic information about the study.

*Types of data used:*

Both Primary and Secondary data will be used for the project.

*Data collection methods:*

*1) Primary Data:*

*a) Interviews:*

The employees will be interviewed to take into account their opinions on the importance of training requirements for the job. The type of interview will either be personal interview or telephonic interview.

*b) Questionnaire:*

Data on the study will be collected in the form of offline questionnaire. The questionnaire will be in the form of 5-point Likert scale.

*c) Expert Opinion:*

For a better insight on the study/project, I will also be referring to management about the various challenges that maybe faced during the study. The officials provide a better insight into the study and provide accurate information on the same.

*2) Secondary Data:*

- a) Websites and Newspapers
- b) Books and Articles
- c) Company officials.

*Survey method:*

Initially, personal interviews/in-person survey will be conducted. The interviews will be conducted with the employees of the company Flowtex Engineers, to get a better insight about their thoughts on training needs and requirements. For accurate data collection, a questionnaire will then be prepared for conducting research and drawing conclusions from the same.

*Population:* Employees/Workers at Flowtex engineers, Belgaum, Karnataka.

*Sample Unit:* The employees of various departments (such as manufacturing, HR, finance etc.) at Flowtex Engineers.

*Sample size:*

From Flowtex company 50 employees will be selected for the study and data collection.

*Sampling Method:*

The method used for survey is a non-probability method. It is a convenience sampling method in order to obtain accessible data.

*Geographical area:*

The survey will be conducted in the geographical area of Udyambag, Belgaum.

*Interpretation: (Table 1)*

- Majority of the employees do agree and strongly agree that it is important to have technical skills in the company.
- 34 of the employees out of 50 have chosen the options important and very important to have technical skills in the company.
- Only 8 employees out of 52 have said that technical skills are unimportant or not applicable in the company.
- The remaining 8 participants were neutral about the importance of technical skills in the company.

*Interpretation: (Table 2)*

- 10 of the employees out of 50 are of the belief that management skills are very important in the company.
- 16 of the employees out of 50 chose the option important for management skills. Hence majority of them that is 26 of them believe that management skills are indeed important.
- 16 of the participants out of 50 neither agreed nor disagreed about the importance of management skills in the company.

Table 1  
Importance of technical skills at Flowtex Engineers

	Frequency	Percent	Valid Percent	Cumulative Percent
Very important	15	30.0	30.0	30.0
Important	19	38.0	38.0	68.0
Neutral	8	16.0	16.0	84.0
Not important	4	8.0	8.0	92.0
Not applicable	4	8.0	8.0	100.0
Total	50	100.0	100.0	

Table 2  
Importance of management skills at Flowtex engineers

	Frequency	Percent	Valid Percent	Cumulative Percent
Very important	10	20.0	20.0	20.0
Important	16	32.0	32.0	52.0
Neutral	16	32.0	32.0	84.0
Not important	5	10.0	10.0	94.0
Not applicable	3	6.0	6.0	100.0
Total	50	100.0	100.0	

Table 3  
Importance of innovation skills at Flowtex engineers

	Frequency	Percent	Valid Percent	Cumulative Percent
Very important	12	24.0	24.0	24.0
Important	16	32.0	32.0	56.0
Neutral	15	30.0	30.0	86.0
Not important	4	8.0	8.0	94.0
Not applicable	3	6.0	6.0	100.0
Total	50	100.0	100.0	

Interpretation: (Table 3)

- 12 of the employees out of 50 think that innovation skills are considered very important in the company.
- 16 of the employees out of 50 also think that innovation skills are important in the company. 15 of the employees out of 50 chose the option neutral in case of the importance of innovation skills in the company.

Interpretation: (Table 4)

- 23 out of 50 employees think that marketing skills are very important in the company.
- 19 out of 50 employees think that marketing skills are important in the company.
- 1 out of 50 of the employees chose the option neutral.
- 4 out of 50 employees think that marketing skills are not considered important in the company.
- 3 out of 50 employees think that marketing skills are not applicable in the company.

Interpretation: (Table 5)

- According to the employees 32 out of 50 of them think that manufacturing skills are very important in the company. (As it is a heat exchanger manufacturing company). Hence the majority have answered positively.
- 13 of the employees think that manufacturing skills are

important in the company.

- 2 of them were neutral about the importance of manufacturing skills in the company.
- Only 1 of them think that manufacturing skills are not important in the company.

Interpretation: (Table 6)

- 20 of the employees out of 50 responded that their technical skills are very good.
- 11 of the employees out of 50 responded that their technical skills are good.
- 14 of the employees out of 50 chose the neutral option.
- 3 of the employees out of 50 believe that their technical skills are bad.
- 2 of the employees out of 50 believe that their technical skills are poor.

Interpretation: (Table 7)

- 17 out of 50 participants do think that have good management skills.
- 14 of the employees were neutral on their skills of management.
- 15 of the employees agreed that they have bad management skills,
- 4 of the employees believe that they have poor management skills.

Table 4  
Importance of Marketing skills at Flowtex Engineers

	Frequency	Percent	Valid Percent	Cumulative Percent
Very important	23	46.0	46.0	46.0
Important	19	38.0	38.0	84.0
Neutral	1	2.0	2.0	86.0
Not important	4	8.0	8.0	94.0
Not applicable	3	6.0	6.0	100.0
Total	50	100.0	100.0	

Table 5  
Importance of Manufacturing skills at Flowtex Engineers

	Frequency	Percent	Valid Percent	Cumulative Percent
Very important	32	64.0	64.0	64.0
Important	13	26.0	26.0	90.0
Neutral	2	4.0	4.0	94.0
Not important	1	2.0	2.0	96.0
Not applicable	2	4.0	4.0	100.0
Total	50	100.0	100.0	

Table 6  
Rating the technical skills of the employees

	Frequency	Percent	Valid Percent	Cumulative Percent
Very good	20	40.0	40.0	40.0
Good	11	22.0	22.0	62.0
Neutral	14	28.0	28.0	90.0
Bad	3	6.0	6.0	96.0
Poor	2	4.0	4.0	100.0
Total	50	100.0	100.0	

Table 7  
Rating the management skills of the employees

	Frequency	Percent	Valid Percent	Cumulative Percent
Very good	3	6.0	6.0	6.0
Good	14	28.0	28.0	34.0
Neutral	14	28.0	28.0	62.0
Bad	15	30.0	30.0	92.0
Poor	4	8.0	8.0	100.0
Total	50	100.0	100.0	

Table 8  
Rating the innovation skills of the employees

	Frequency	Percent	Valid Percent	Cumulative Percent
Very good	8	16.0	16.0	16.0
Good	16	32.0	32.0	48.0
Neutral	14	28.0	28.0	76.0
Bad	7	14.0	14.0	90.0
Poor	5	10.0	10.0	100.0
Total	50	100.0	100.0	

Table 9  
Rating the marketing skills of the employees

	Frequency	Percent	Valid Percent	Cumulative Percent
Very good	17	34.0	34.0	34.0
Good	18	36.0	36.0	70.0
Neutral	12	24.0	24.0	94.0
Bad	2	4.0	4.0	98.0
Poor	1	2.0	2.0	100.0
Total	50	100.0	100.0	

Table 10  
Rating the Manufacturing skills of the employees

	Frequency	Percent	Valid Percent	Cumulative Percent
Very good	28	56.0	56.0	56.0
Good	12	24.0	24.0	80.0
Neutral	7	14.0	14.0	94.0
poor	3	6.0	6.0	100.0
Total	50	100.0	100.0	50

*Interpretation:* (Table 8)

- 24 out of 50 employees believe that they have good innovation skills.
- 14 of the employees were neutral on the subject.
- 7 of the employees believed to have bad innovation skills.
- 5 of the employees believed to have poor innovation skills.

*Interpretation:* (Table 9)

- 17 out of 50 employees believe that they have very good marketing skills.
- 18 out of 50 employees believe that they have good marketing skills.
- 12 out of 50 employees were neutral on the matter.
- 2 out of 50 employees believe that they have bad marketing skills.
- Only 1 of the employees believes that they have poor marketing skills.

Hence majority of them have answered positively

*Interpretation:* (Table 10)

- 28 out of 50 employees believe that they have very good manufacturing skills.
- 12 out of 50 employees believe that they have good manufacturing skills.
- 7 of the employees were neutral on the matter.
- Only 1 of the employees believe that they have poor manufacturing skills.

Hence majority of the participants have answered positively.

### 3. Findings

68% agree that technical skills are important for the company, 52% agree that management skills are important, 48% agree that communications skills are important, 56% agree

that innovation skills are important, 84% agree that marketing skills are important and 90% agree that manufacturing skills are important for the company.

66% agree that training helps in achieving more career opportunities, 58% agree that it helps in the growth of the organization, 60% agree that it helps in enhancing skills and 62% agree that it helps in completing projects on time.

62% have rated saying that they have good technical skills, 35% said that they have good management skills, 25% said that they have good communication skills, 50% said that they have good innovation skills, 70% said they have good marketing skills and 80% said that they have good manufacturing skills.

### 4. Conclusion

After collection and analysis of data it was seen that, the participants had great skills and talents in manufacturing and marketing areas. The areas that required improvements were that of communication, management and innovation. Competency gaps was observed in these three areas mainly. Hence training programs need to be conducted in these three important areas i.e., communication, management and innovation. By doing so the company can achieve higher efficiency and productivity and the employees can gain additional sets of skills and talents which can also motivate them further to achieve their goals and objectives on time efficiently.

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