

# Case in Competency: Training need Assessment

Anitha Thomas and Anirudha Panchal

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## **Bridging Gap**

Competency assessment is vital in identification of the desired skills sets for each role for meeting organizational goals and objectives. It helps in assessing the gap which later can be bridged through training and development or through employees' self-initiated efforts. This further helps in formulating more accurate terms and plan training activities, that leaves little mismatch between training needed and training provided. This paper reports a case study relating to competency based training need assessment for Head Planning and Production at Ink Manufacturing firm, through four stage process namely- Conceptualization, Instrument Construction, Diagnosis and Analysis and Unfreezing.

Unlike other resources, human being is the only asset that can appreciate with useful inputs. It is one such asset that adds value to itself with respect to time.

And therefore it is considered as a resource that can be cultivated by the manure of training and development. But is this manure resulting in higher productivity? More value for money? The struggle for evaluating this continues. The training and development managers of today are toiling hard to convince the management that investment in training yield results that are not much different that the investment in various projects.

The aspect of training evaluation is getting more and more relevant in the current times. Each and every activity of an organization is being looked at in terms of being value added

or non value added. Various models have been proposed by learned scholars to evaluate training at various levels. The quest however is still on to identify various metrics so as to understand the results of training. It has been quite in fashion now to look at training not as a cost center but as a strategic investment. No wonder companies are talking of return on investment in training.

Business results offer direct metrics that show the effect



Ms. Anitha Thomas, Faculty, GIDC Rofel Institute of Management Studies, Plot No.14/5, Charvada Road, GIDC Vapi, Gujarat-391695, Email: anitha\_tom@rediffmail.com



Mr. Anirudha Panchal, D.G.M. - HR Micro-Inks Ltd., Corporate House, Bilakhia House, Muktanand Road, Chala, Vapi, Gujarat-391691, Email: panchall@yahoo.com

of any such initiative, correlating with a particular training input though is still a challenge and is full of subjectivity. It is still an open game for the training and development manager to be played to earn the favour of the management and similar for the management to prove it otherwise.

In such a situation the question is what can best explain the result of a training input; the answer seems to lie in using the concept of competency. This concept offers an opportunity to the evaluator to observe the change in competency as manifested in the behaviour of the individual at workplace. Competency as widely understood is the sum total of knowledge, skills and attitudes that makes a person perform a task well. It means the behaviours necessary for the job to be performed well. It therefore focuses on the process more than the results. This further indicates that sound processes would lead to desired results. There are very few companies that feel it is important to understand the shared values of the organization and whether that would lead them to the achievement of ultimate goal of the organization. Quite a few of them have realized how important are the values to be able to align the total workforce to a common goal. This is nothing but a conscious effort to focus on the means towards the ends!!

Organizations have gone through really unpleasant experiences when the focus is only on the results. An employee is not all alone in the organization. His role is not merely to achieve his own objectives and targets but also needs to be a collaborative member of the system that is together trying to achieve. Every person with his or her actions within the organizational system determines how smooth and conducive the environment is for everyone to achieve. As a matter of fact every individual's collaborative behaviour acts as a lubricant in the machine thereby increasing the efficiency of the machine. For organizations to grow, they need to focus more on the collective effort than on the individual effort. Competency assessment and monitoring helps to identify the function and not so functional behaviours. This subject has received little attention in the business world. A conscious effort to transcend the individuals from not so functional to functional behaviour could be a worthwhile path to be taken by the training and development function. Evaluation of these subtle changes in behaviour that are the manifestations of the enhanced competencies is the subject matter of the topic Competency Based Training Evaluation.

## The Background

Company A is an Indian multi-national manufacturer of a range of products in printing inks. The company has been in operation for over 20 years. Since its very beginning, Company A has remained strongly committed to the printing industry. This is reflected in high levels of investments they made not only to manufacture inks but also the key raw materials like pigments, resins, varnishes, additives etc. Today the company is amongst the few ink companies in the world having such high degree of backward integration.

Company A manufactures printing inks for publications, packaging and other general purpose applications. It was established in 1987 and listed on India's stock markets in 1991. By 1997, it was the number one player in domestic markets and by 2004 it became the world's top 15 ink companies with a presence in over 52 countries. In 2006, it entered into a joint venture with a German company, and the company is now among the world's top five ink companies. Today, Company A has a sales turnover of Rs. 12292 million (FY2006). The total manufacturing plant is organized into: Resin Plant, Varnish Plant, Alkali Blue Pigment Plant, Seamless Ink Plant, R&D Plant and 3 Ink Manufacturing Plant.

## The Context

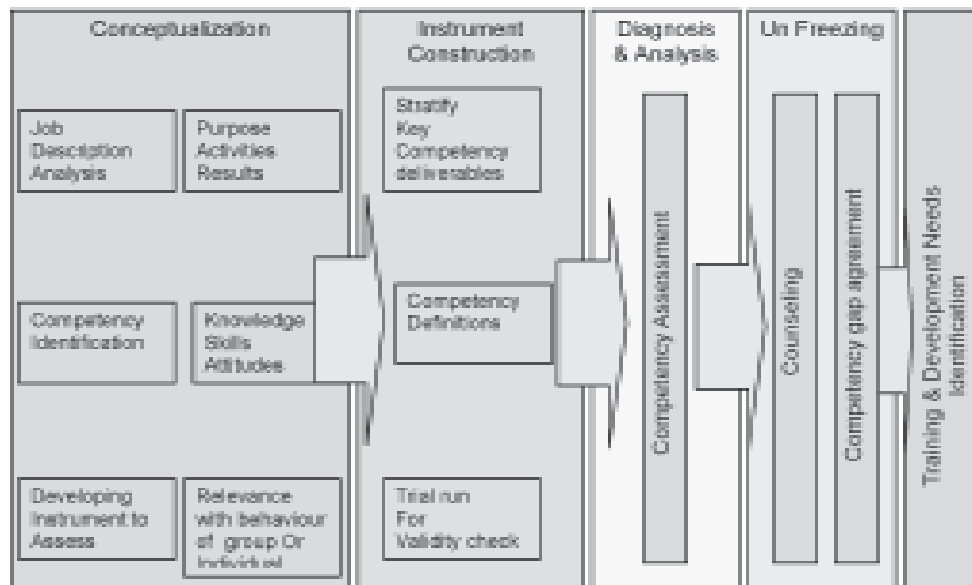
The 'boundary' of this study for Company A was identified as encompassing the CBTA intervention that occurred for the Head Planning and Production. Company A had brought about changes to its workforce in the early 2000's, as it sought to be globally competitive, and had undertaken a process of restructuring the role of its employees specially Planning and Production, and that's why Head P&P who directly makes an impact in restructuring was studied as case. As part of the role of Head P&P required having centralized control over all the plant functioning, and for the organization competitiveness his role and the job are very critical.

## The Work

Competency Based Training Model focuses on four stage process:

1. Conceptualization
2. Instrument Construction
3. Diagnosis and Analysis
4. Unfreezing

**Figure 1: The CBTA Model**



A systematic and thorough investment in all the four Approaches leads to the ultimate objective of Training Need Identification. As per the survey findings for training need identification, personal interviews are most widely adopted option (83 percent), direct interfacing with the workplace (80 percent), and evaluation of performance/productivity measures (75 percent), questionnaire survey (66 per cent), and organization analysis (64 percent). As per the study findings, among different methods of training need assessment such as direct observation, interviews, surveys, group discussions, etc 'questionnaire based survey' is by far most commonly followed technique (Sah, 1991) and very recently Competency Based Training Need Assessment has proved to be the best option.

This model lays heavy emphasis on strong ground work in the following stages:

1. Job Description and analysis
2. Identification of competencies to perform this job well
3. Defining Competencies
4. Developing reliable and valid instruments to identify the level at which and individual is operating.

### **Job Description and Analysis**

Job descriptions are lists of the general tasks, or functions, and responsibilities of a position. Job descriptions are usually developed by conducting a job analysis, which includes examining the tasks and sequences of tasks necessary to perform the job. The analysis looks at the areas of knowledge and skills needed by the job. Job description and analysis becomes necessary when competency based assessment *conceptualization* is to be drawn. The background helps in assessing what in the job is to be studied for, the purpose of the job, dimensions, major activities, and accountability.

### **Role of the Head Planning and Production**

#### **Purpose of the Job**

The purpose of this job is to coordinate with various departments, plan and direct production activities, analyze data of operations in order to ensure costs within specified limits, internal customer satisfaction, safe working practices, statutory compliance, competent and enthusiastic workforce.

**Dimensions**

- 1. Total No. of Subordinates : 6
- 2. Annual Operating Budget : 35 crores
- 3. Total number of employees : 1000

**Major Activities**

- 1. Convert sales forecast into a production plan
- 2. Monitor plant level yield and cost parameters
- 3. Drive quality, cost and yield improvement initiatives
- 4. Ensure cross departmental harmony
- 5. Set targets for plant in charges
- 6. Carry out periodic performance reviews
- 7. Finalise production budgets
- 8. Suggest process improvement ideas
- 9. Identify and develop competence

**Accountability**

- 1. Cost and quality targets achieved.
- 2. Enhanced competence of the workforce
- 3. Sound systems in place

- 4. Performance Oriented production activities.
- 5. Compliance to Quality, Environment and OH&S management systems.
- 6. Efficient production processes

**Identification of Competencies**

To *Conceptualize* the competency identification, the job analysis result culminates in the knowledge, skills and attitude. It needed to be conceptualize around the people who are already successful in similar jobs and identify how they do what they do and what has made them successful in their fields has helped in defining the competencies required for head P & P. An exploration for Second Approach: *Instrument Construction* starts with the stratification of key competencies under the major categories of Functional Knowledge, Functional Skills and Functional Attitude requirements.

Each Competency is then defined in terms of the major elements of that particular competency. This lays the foundation to identify various descriptors graduating from a base to higher levels of behaviour as manifestations of that competency.

**Table-1: Job Competencies and Descriptors**

Job competencies/ Descriptions	FUNCTIONAL KNOWLEDGE REQUIREMENTS	FUNCTIONAL SKILL REQUIREMENTS	KEY ATTITUDES/TRAITS
	<ul style="list-style-type: none"> <li>• Organization and Business Awareness</li> <li>• Ink manufacturing and trouble shooting</li> <li>• Printing Inks and its application</li> <li>• Knowledge of customer needs</li> <li>• Financial Performance Indicators</li> </ul>	<ul style="list-style-type: none"> <li>• Interpersonal</li> <li>• Systems thinking</li> <li>• Analytical Thinking</li> <li>• Planning and organizing</li> <li>• Team Leadership</li> </ul>	<ul style="list-style-type: none"> <li>• Emotional Stability</li> <li>• Assertiveness</li> <li>• Persistence</li> <li>• Customer orientation</li> <li>• Initiative</li> </ul>

## Functional Knowledge Requirements

### 1. Organization and Business Awareness

The job needs:

- a. Understanding of the economic drivers in industry and how value is created at all levels in the organization.
- b. Knowledge to pro-actively scan the market place for information on political, economic, and technological and other developments outside the normal boundaries of the business.
- c. The understanding of how the organization is positioned for the future relative to its environment.

### 2. Ink manufacturing and trouble shooting

- a. The job calls for proficiency in the ink manufacturing technologies and the awareness of the problems and ink performance issues.
- b. It needs the knowledge of conditions required for optimal performance, and all parameters related to various printing machines.

### 3. Printing Inks and its applications

- a. The job needs indepth knowledge of printing ink technology and applications of various categories of inks.
- b. The incumbent should have the knowledge to be able to recommend a particular ink suiting the substrate and the operating conditions.

### 4. Knowledge of customer needs

- a. The job needs the knowledge of critical business interests to be able to negotiate with significant internal and external stakeholders and builds partnerships with them.
- b. The person should be fully familiar with customer research so that strategies meet customer needs.
- c. He should have the knowledge of the manufacturing niche the company has viz a viz competitors.

### 5. Financial Performance Indicators

- a. The job needs awareness on various financial metrics that project the performance of the production and planning.
- b. It also needs thorough information on various cost elements and factors leading to those costs.
- c. It needs the knowledge of available resources for optimal performance.

## Functional Skill Requirements

### 1. Interpersonal

It is the ability to act in a manner consistent with the values of the organization and influence others to adopt them. It involves creating approachability at all times. It also involves the ability to build effective relationships with others and present ideas persuasively and confidently.

### 2. Systems thinking

It is the ability to analyze a systemic model in context of contrasting data, sense the trend and take appropriate actions. It is the ability to detect cause and effect relationships and the ability to detect unintended consequences of a decision in any part of the system.

### 3. Analytical Thinking

It is the ability to carryout indepth analysis of a problem or a situation highlighting out the obvious and apparent causes. It is the ability to effectively get to the root cause of a problem using various data in a logical and rational manner.

### 4. Planning and organizing

It is the ability to organize activities and allocate resources cost-effectively, and take into account the skills mix within the work group or team. It is the ability to plan effectively keeping the best balance of resources including human, financial and technological resources to meet organizational goals.

It is the ability to identify and anticipate future opportunities and potential problems and incorporate contingency ("what if") plans into the planning process.

**5. Team Leadership**

It is the ability to foresee the conflicts and the ability to minimize the same before it arises. It involves the disposition to give freedom to work within the framework.

It also includes the ability to spot talent, utilize them effectively and coach them for enhanced performance.

It also involves communicating business opportunities and creating a vision that excites and motivates others.

**Key Attitudes/Traits**

**1. Emotional Stability**

It is displayed by the ability to withstand emotional pressures and exercise composed approach in various situations without being upset or tensed.

**2. Assertiveness**

It is displayed by the ability to state clearly the expectations and take relevant actions in the interest of the company without having fear for loss of favour.

**3. Persistence**

It is displayed by the ability to take actions relentlessly improving the intensity of actions on every attempt to deal with all obstacles.

**4. Customer Orientation**

It is displayed by the ability to negotiate critical business interests with significant internal and external stakeholders and builds partnerships with them. It also can be ascertained based on the familiarity with customer research so that strategies meet customer needs.

**5. Initiative**

It is displayed when the people exceeds the bounds of ones formal authority and take actions in the interest of the organization

**Developing Instrument**

Having developed the scales, the next activity was to choose the tools among those identified to test each competency and develop a matrix giving details of what tools shall be used to test a particular activity. Each tool was *constructed* in detail so that it should gather evidence towards what level of behaviour is demonstrated or likely to be demonstrated by the person. These tools were constructed so that checking the group behaviour and individual behaviour could be possible thus, the third approach *Diagnosing* the KSA level and further *Analyzing* the gap could be initiated.

**Table-2: Competencies- Tool Matrix**

Sl. No.	Competencies/Tools	In Basket	Case Study	Role Play	Business Game	Prese-ntation	Psycho metric test	BEI
1	Organisation and Business Awareness	✓	✓					
2	Ink manufacturing and trouble shooting		✓			✓		
3	Printing Inks and its applications					✓		
4	Knowledge of customer needs	✓				✓		
5	Financial Performance Indicators					✓		
6	Interpersonal			✓			✓	
7	Systems thinking	✓	✓					

8	Analytical thinking	✓						✓
9	Planning and organizing				✓			
10	Team leadership				✓			
11	Emotional stability			✓			✓	✓
12	Assertiveness			✓			✓	✓
13	Persistence			✓				✓
14	Customer orientation	✓			✓			
15.	Initiative		✓					✓

The holistic understanding reflects how the 15 competencies for the job of Head Planning and Production can be assessed, through seven instruments via, in basket exercise, case study, role play, business game, presentation, psychometric test and behavioural event Interview

**Competency Assessment: Diagnosis and Analysis**

**The Activities: 1 in Basket Exercise**

The whole module is divided in 5 activities where the role of Head Planning and Production is to be played, and this position is newly created. It is to be assumed that early this unit was managed by Director Operations and the role needs to report directly to Director Operations. The department includes four plants, headed each by a plant in charge. Each plant in charge reports to role.

The items are:

- A) analyzing the performance of the plant in the last 15 years and later give recommendations,
- B) handling customer complaints regarding the ink property not being up to the mark
- C) other customer complaint regarding ink light fastness
- D) detailing the customer complaints report which need to be pulled out from SAP
- E) review of current system and put appropriate system in process development

**Table - 3: Itemwise Evaluation Matrix (In Basket Exercise)**

Competency	Item A	Item B	Item C	Item D	Item E
Organisation and Business Awareness	✓				
Analytical thinking	✓	✓	✓	✓	✓
Customer orientation		✓	✓		
Systems thinking	✓			✓	✓
Knowledge of customer's needs		✓	✓		

For each item the *role* need to indicate the decision and actions, any plan/proposal, the rationale for the actions or any other relevant information sought and the justification thereof. The role might mention assumptions if any unless specified in the content of the In-Basket and based on the exercise evaluation are marked.

The competencies assess through this exercise was judged among three levels namely:

**Initial level** - Indicating the person under observation shows signs of presence of this competency but not fully manifested in action.

**Developing level** - Indicating the person under observation has displayed this competency in a few areas through his recommendations and proposals.

**Proficient**- Indicating that the person under observation has widely displayed this competency in various recommendations and proposals.

**The Activities: 2 Case Study**

Case study was developed where a case company’s data were provided. It was sought that the company has been ailing off late on various accounts. With a wide spectrum of products it was finding it difficult to cope with the pressing production requirements. Datas of 5-year were provided on growth in manufacturing capacities for various products, growth in actual production in various products, capacity utilization for various products and customer complaints data for printing inks.

Looking into the data the trainee was asked to analyze the details and recommend appropriate measures and action plan to the management to revive the case company.

The competencies were then assessed on three levels the Initial level where recommendations indicate limited presence of competencies on the four competencies under observation. Developing level where recommendations indicate reasonable presence of competencies and last stage Proficient level where recommendations indicate high presence of competencies.

**The Activities: 3 - Role Play**

**Case:** Here the trainee had played the role of head of manufacturing at ABC Chemicals. Background of the study was that the management has taken serious steps to boost the performance management efforts. Ramesh who is the plant in charge of the inks plant has of late have gone down on performance. Ramesh is an extremely emotional person and finds difficult to take harsh comments and at times gets abusive when challenged. Trainee was asked to counsel him on his performance issue and develop a performance improvement plan. One of the volunteers will play Ramesh.

**Assessment** – Role Play was rated on 10 point scale, and analysis was done of the following parameters.

- 0 – Absence of the competency
- 5 – Competency displayed showed above average levels.
- 10 – Proficient display of the competency

**Table-4(A): Role Play Assessment**

Competency	Evidences that displayed the competency	Rating (0 to 10)
Interpersonal		
Assertiveness		
Persistence		
Emotional Stability		

**The Activities: 4 – Business Game**

Trainee was given 5 volunteers. The game was to understand how the trainee makes maximum resource utilization with due concern for the quality.

**Case:** Trainee heads a *Boat manufacturing company* and it has got 50 boats order from the customer. The customer has also sent a sample so that the end products match the sample. Trainee has to accomplish the task by



estimating, organizing the team and delegating the team for making the boats in 60 minutes out of material given to him.

0 – Absence of the competency  
 5 – Competency displayed showed above average levels.  
 10 – Proficient display of the competency

**Table-4 (B): Business Game Assessment**

Competency	Evidences that displayed the competency	Rating (0 to 10)
Planning and Organizing		
Team Leadership		
Customer Orientation		

**The Activities: 5 – Presentation**

**Case:** Trainee was asked to create a presentation for group of customers, clarifying the following aspects:

1. Ink Manufacturing and trouble shooting
2. Printing Inks and its applications
3. Knowledge of customer needs
4. Financial performance indicators and their implication in the production functions

**The competencies assessment through this activity was:**

**Initial level** - Indicating the person under observation shows signs of presence of this competency but not fully manifested in action.

**Developing level** - Indicating the person under observation has displayed this competency in a few areas through his recommendations and proposals.

**Proficient** - Indicating that the person under observation has widely displayed this competency in various recommendations and proposals.

**Presentation**

**The Activities: 6 – Psychometric Test 16 pf**

16 PF is an abbreviation for the 16 Personality Factors multivariate-derived by psychologist Raymond Cattell. It is a test that draws a profile in reference to the following personality factors.

Warmth, Reasoning, Emotional Stability, Dominance / Assertive, Liveliness, Rule-Consciousness, Social Boldness, Sensitivity,

Vigilance, Abstractedness, Private-ness, Apprehension, Openness to Change, Self-Reliance, Perfectionism and Tension

- Each factor is measured on a scale of 1-10.
- Each factor has a 'Right' meaning (8-10) and a 'Left' meaning (1-3).
- The factor name represents the 'Right' meaning.
- There is no 'Good' or 'Bad' orientation about any factor.
- The score is indicative of a certain level or type of behaviour.
- The appropriateness of the behaviour depends on the context.

The test gives a profile in terms of how much is each factor present in the person and gives an idea in terms of how much is the person likely to display that behaviour. No evaluation was done as it was self explanatory.

**The Activities: 7 Behaviour Event Interview**

Finally, a behavioural interview was structured to collect information about past behaviour.

**Case:** Sample questions:

- o Tell me about a time when you were on a team, and one of the members wasn't doing his or her share.
- o Tell me about a time when you felt a need to update your skills or knowledge in order to keep up with the changes in technology. How did you approach that?

- o Describe a time when a customer got angry with you. How did you react? How did you resolve the situation?
- o Please give me an example of a time when you took the initiative to improve a specific work process.
- o Tell me about a time when a customer requested special treatment that was out of the scope of normal procedures. What was the situation and how did you handle it?
- o Describe a time when you had to use logic and good judgement to solve a problem.
- o Tell me about a time when you had to cope with a stressful situation.
- o Give me an example of a time when you used your fact-finding skills to solve a problem.
- o Describe a time when you put your needs aside to help a co-worker understand a task. How did you assist them? What was the result?

The competencies Assessed were emotional stability, assertiveness, persistence, initiative and analytical thinking. It also had three levels, Initial level - Indicating the person under observation shows signs of presence of this competency but not fully manifested in action.

**Developing level** - Indicating the person under observation has displayed this competency in a few areas through his recommendations and proposals.

**Proficient level** - Indicating that the person under observation has widely displayed this competency in various recommendations and proposals.

Complete evaluation analysis had helped in identifying the gaps which lead to the fourth approach ie the unfreezing stage. *Unfreezing stage* is necessary because before any change can occur, people must believe the change is needed and the change in competencies level can happen when the gap

agreement is there and to agree, *counseling* is a tool which unfreezes the learning mind. The counselee is explained why the responses he/she gave were superior or inferior with respect to the expected results of the job. An agreement is reached as to the gaps visible in the manifested behaviour. This forms the very important unfreezing aspect of any learning process. Generally training needs are identified through various sources but little effort is made in terms understanding the needs of the person or the issues faced by the person. It is very important that before the person is exposed to the training inputs, he/she owns the reality.

Once the person owns the reality, the gap is considered to be an appropriate training and development need and it can be further developed into:

- Designing the training input based on the gaps
- Sustaining the inputs over a period of time
- Reassessing the individual against the same competencies
- identifying if the individual has demonstrated behaviour that is different from the ones pre training – Evaluation.

### Conclusion

The purpose of the study was to build knowledge and theory in relation to the implementation of competency- based systems in the workplace by investigating Head Planning and Production role and job. The study sought to determine how through an effective a CBTA system; one can increase its enterprises' competitiveness and productivity.

This case study demonstrates the value of taking an enterprise focus in developing appropriate training arrangements. Considerable effort has gone into producing industry-wise standards in competency assessment. The challenge is to set standards to achieve consistency but also to ensure that they are adapted to the needs of organizational effectiveness. This case not only confirms the importance of the company's vision but also the value that comes from linking recognition and training arrangements into a wider emerging set of industry skills.

The case study demonstrates, how the approaches and stages if properly weaved can lead to considerable change in the competency level, which in turn affects the potential of the job-doer. The value addition by a competency-based approach depends on a number of factors: (i) extent to which the competency study is based on the strategic needs of the organization; (ii) clarity with which the role or job is defined in relation to the strategy; (iii) rigour of the process used in defining the competencies; and the accuracy in matching individuals vis-à-vis job needs.

The legacy of a company's assessment center has made many developments which has imitated change in workplace activities and has been successful in addressing the deficiency areas with a change.

**Keywords:** Competency Assessment, Training Need Analysis, Job Competencies

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